

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

UTICA AVENUE SOLAR PROJECT

CUP 22-01

Kings County Community Development Agency



May 2022

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
AB 32	Assembly Bill 32 (California Global Warming Solutions Act of 2006)
AC	alternating current
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AF or af	acre-feet
AFY or afy	acre-feet per year
APN	Assessor’s Parcel Number
BMPs	best management practices
Btu	British thermal unit
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
CalGEM	California Department of Conservation (CDOC), Geologic Energy Management Division
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CDA	Community Development Agency
CDFW	California Department of Fish and Wildlife
CDOJ	California Department of Justice
CDPH	California Department of Public Health
CDWR	California Department of Water Resources
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CO _{2e}	Carbon Dioxide Equivalents
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CVP	Central Valley Project
CWA	Clean Water Act
CWML	Chemical Waste Management Landfill
cy	cubic yards
dB	decibels
dBA	decibels in “A-weighted” scale
DC	direct current
DMR	Division of Mine Reclamation
DOC	California Department of Conservation
DPR	California Department of Pesticide Regulation
DSOD	Division of Safety of Mines
DSRP	Decommissioning and Soil Reclamation Plan

ACRONYMS AND ABBREVIATIONS (Cont'd)

DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS`	Environmental Impact Statement
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FSZ	Farmland Security Zone
g	gravity - unit of ground acceleration; 1.0 g = force of gravity
GHG	greenhouse gas
gpd	gallons per day
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HMBP	Hazardous Materials Business Plan
I&R	Illingworth & Rodkin
IS/MND	Initial Study/Mitigated Negative Declaration
ISR	Indirect Source Review
KCAG	Kings County Association of Governments
KCDEHS	Kings County Division of Environmental Health Services
KCFD	Kings County Fire Department
KCSO	Kings County Sheriff's Office
KCSSD	Kettleman City Community Services District
kV	kilovolt (unit of electrical potential)
KWRA	Kings Waste and Recycling Authority
L _{dn}	day-night average noise level
L _{eq}	equivalent hourly average noise level
L _{max}	maximum instantaneous noise level
LOA	Live Oak Associates
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MMT	Million Metric Tons
MND	Mitigated Negative Declaration
MTA	Moore Twining Associates
MW	Megawatt
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NIOSH	National Institute for Occupational Safety and Health
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation

ACRONYMS AND ABBREVIATIONS (Cont'd)

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O&M	operations and maintenance
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company
PMWAP	Pest Management and Weed Abatement Plan
POCO	Point of Change of Ownership
POI	Point of Interconnection
PPA	Power Purchase Agreement
PPV	Peak Particle Velocity (vibration measure)
PRC	California Public Resources Code
PV	photovoltaic
ROW	Right of Way
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Office
SJVAPCD	San Joaquin Valley Air Pollution Control District
SoCalGas	Southern California Gas Company
SR	State Route
SRP	Soil Reclamation Plan
SSC	species of special concern
SWMP	Solid Waste Management Plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCP	Traditional Cultural Place
TCR	Tribal Cultural Resource
TPM	Tentative Parcel Map
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
US EIA	U.S. Energy Information Agency
US EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration velocity level in decibels
VMT	Vehicle Miles Traveled
WAC	Williamson Act Contract

CHAPTER 1 – INTRODUCTION

1.1. PREPARATION OF AN IS/MND UNDER CEQA

This document is an Initial Study and Mitigated Negative Declaration (IS/MND) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Utica Avenue Solar Project. This MND has been prepared in accordance with the CEQA, Public Resources Code Sections 21000 et seq., and the State CEQA Guidelines.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the CEQA Guidelines, Section 15064, an Environmental Impact Report (EIR) must be prepared if the Initial Study indicates that the proposed project under review may have a potentially significant impact on the environment. A Negative Declaration may be prepared instead, if the lead agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and, therefore, why it does 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 Initial Study 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 Initial Study 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 is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, 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 into the proposed project in accordance with the CEQA Guidelines Section 15070(b), a Mitigated Negative Declaration is prepared. This document includes such revisions in the form of mitigation measures. Therefore, this document is a Mitigated Negative Declaration and incorporates all of the elements of an Initial Study. Hereafter this document is referred to as an MND.

CHAPTER 2 – DESCRIPTION OF THE PROPOSED PROJECT

2.1. BACKGROUND INFORMATION

1. Project Title

Utica Avenue Solar Project
Kings County Conditional Use Permit File No: CUP 22-01.

2. Lead Agency Name and Address

Kings County Community Development Agency
1400 West Lacey Boulevard, Building #6
Hanford, CA 93230

3. Contact Person, Phone Number, and Email Address

Noelle Tomlinson, Planner
559-852-2697
Noelle.Tomlinson@co.kings.ca.us

4. Project Location

The 29.5-acre Utica Avenue Solar Project site is located on the south side of Utica Avenue, approximately 2.8 miles east of Interstate 5. Assessor's Parcel Numbers: 048-030-050 (partial).

5. Project Sponsor's Name and Address

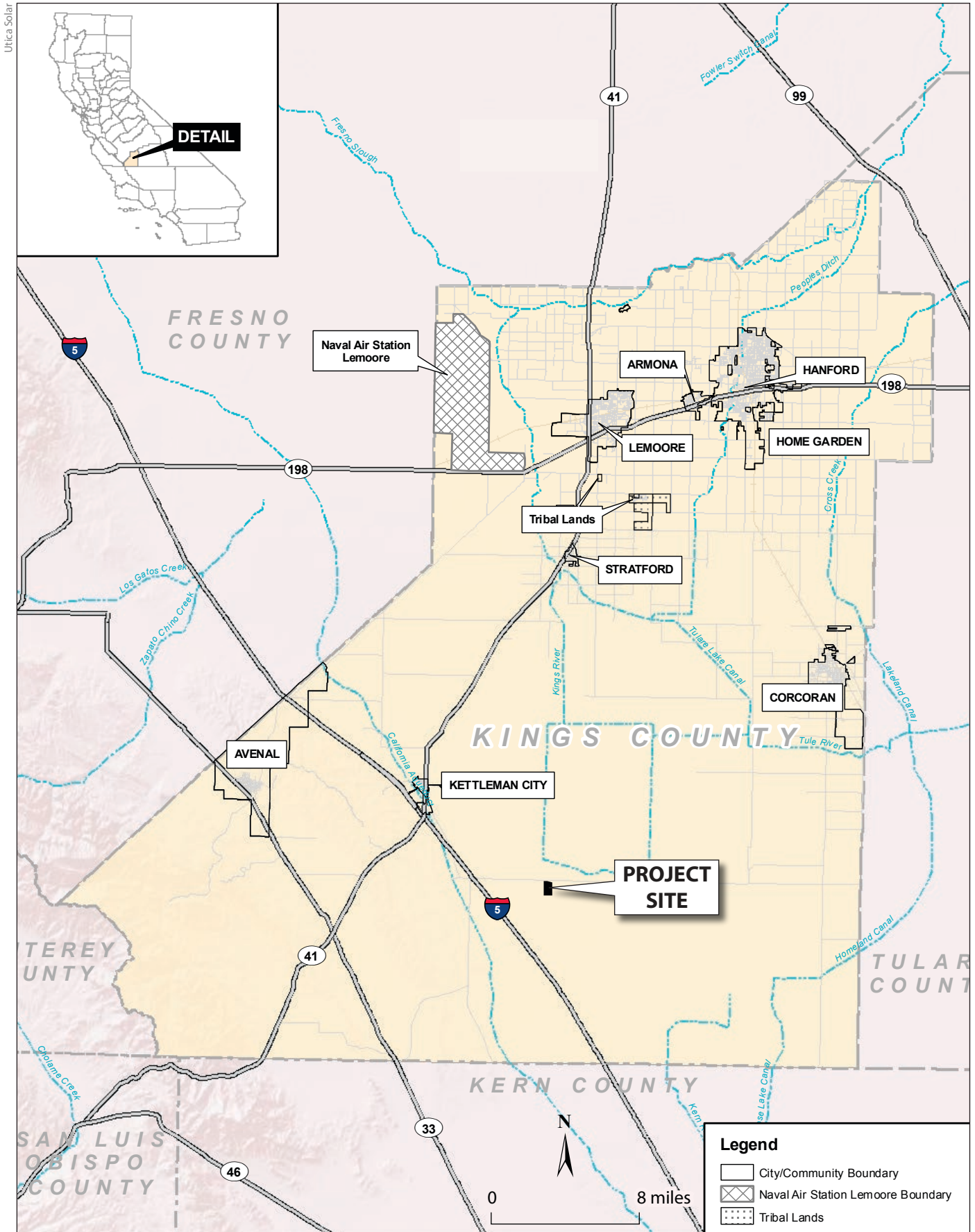
Kuubix Global, LLC
7401 West Sunnyview Avenue
Visalia, CA 93291
Contact: Logan Taylor, Director – C&I Operations

6. General Plan Designation

The 2035 Kings County General Plan designates the entire project site as "General Agriculture – 40 acre."

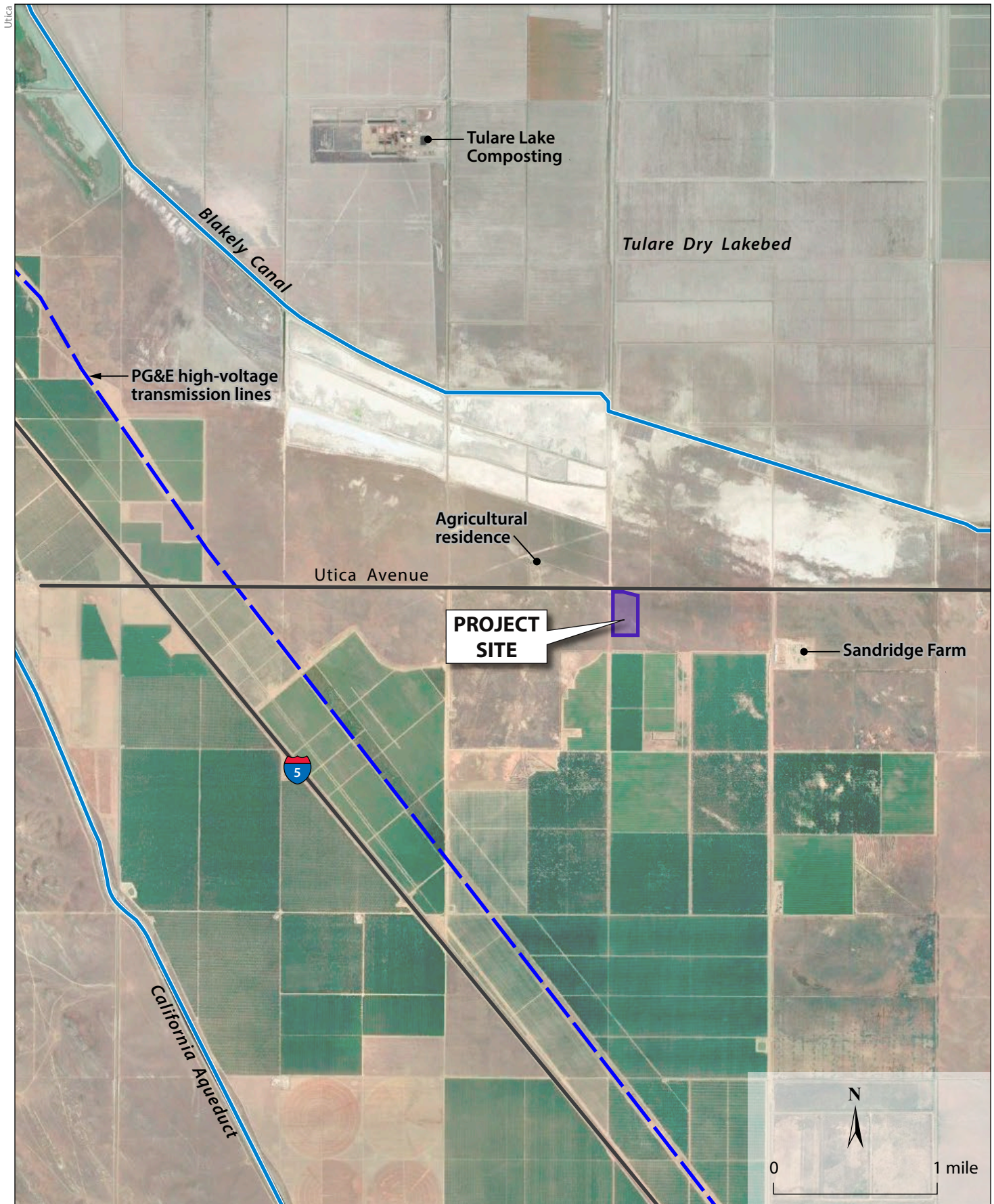
7. Zoning

Pursuant to the Kings County Development Code, the entire project site is located within the General Agricultural – 40 acre minimum (AG-40) zone district.



Source: Kings County Community Development Agency

Regional Location
Figure PD-1



Source: Google Earth, 2021

Project Vicinity
Figure PD-2

2.2. PROJECT DESCRIPTION

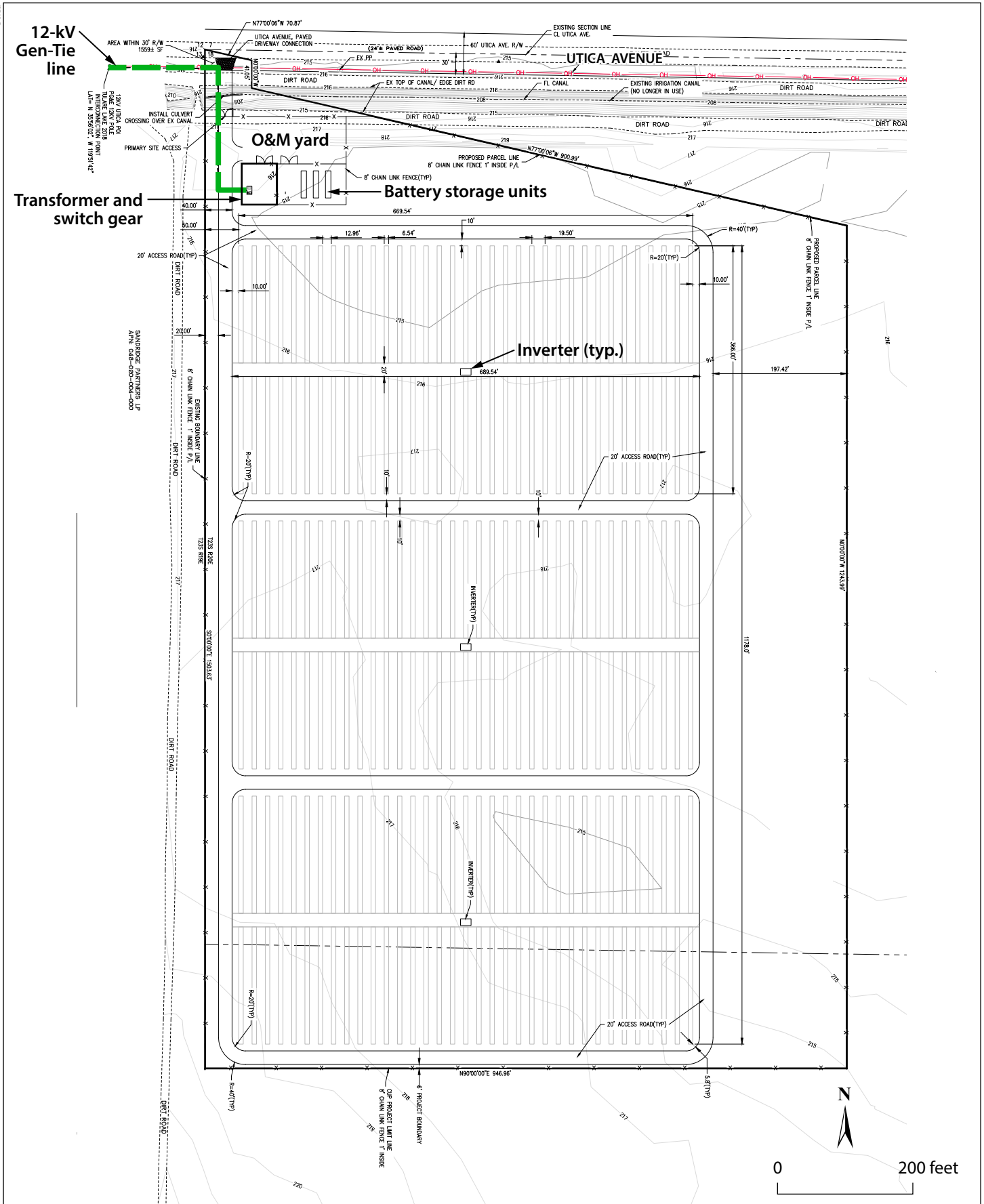
SITE LOCATION AND DESCRIPTION

The Utica Avenue Solar Project will occupy approximately 29.5 acres of a 40-acre parcel located on the south side of Utica Avenue approximately 2.8 miles east of Interstate 5 (see Figures PD-1 and PD-2). The project site comprises the northern portion of a 40 acre parcel which currently in the process of being split from Assessor’s Parcel No. 048-030-050 which occupies a total of 151.5 acres, all of which is under a Land Conservation contract under the Williamson Act. The applicant has submitted for a Tentative Parcel Map to create a 40-acre parcel containing the 29.5-acre project site. The portion of the existing Land Conservation contract applicable to the newly created 40-acre parcel would be subject to cancellation prior to project development.

The 29.5-acre Utica Avenue Solar Project site is virtually level with elevations ranging from a high of 218 feet above mean sea level (amsl) at the southwest corner of the site to a low of 212 feet amsl at the northern boundary. A former agricultural irrigation canal passes east-west through the northeast corner of the project site along the south side of Utica Avenue. The vegetation cover of the fallowed project site consists of annual grasses and weeds. The site has been grazed but is not cultivated due to lack of access to surface water or groundwater supplies for irrigation. A 12-kV PG&E power distribution line runs adjacent to the northern site boundary along the south side of Utica Avenue.

PROJECT OVERVIEW

The Utica Avenue Solar Project will have a generating capacity of 3 megawatts (MW). The solar facility will consist of arrays of solar modules mounted on racking systems supported by steel posts, along with associated inverters which will convert the DC generation to AC current (see Figure PD-3). The project will also include a battery storage system with an energy storage capacity of 3 MW. The project would include a single 3 MW transformer which would step up the generation voltage to 12-kV distribution voltage to be conveyed to the existing PG&E power distribution line running along the south side of Utica Avenue. An approximately 375-foot long gen-tie line would convey the solar generation from the on-site project switchgear and production meter at the Point of Change of Ownership (POCO) to the Point of Interconnection (POI) with the PG&E system at an existing power pole on the south side of Utica Avenue approximately 115 feet west of the project site. The gen-tie and other components and upgrades located outside the meter would be owned by PG&E and would be considered to be on the “utility side” of the meter. The electricity generated by the solar facility would be sold to PG&E under a long-term (20-year) power purchase agreement (PPA). The Utica Avenue Solar Project is planned to be constructed over a 3-month period in late 2022.



Source: DK Engineering

Site Plan
Figure PD-3

PROJECT PURPOSE AND OBJECTIVES

The purpose and objectives of the Utica Avenue Solar Project are as follows:

- Generate up to 3 megawatts (MW) of clean, renewable electrical power utilizing solar photovoltaic (PV) technology.
- Help implement the State’s goal of increased electrical generation with renewable resources under California’s Renewables Portfolio Standard (RPS).
- Help implement the State’s Global Warming Solutions Act of 2006 (AB 32), as supplemented in 2016 by SB 32, by providing a non-fossil fuel based source of electricity that will replace existing fossil-based generation and thereby contribute to the overall reduction in greenhouse gas emissions.
- Create new employment opportunities for local residents.
- Positively contribute to the local economy through stimulation of economic activity such as creation of secondary multiplier employment and the purchase of materials and services.

CONSTRUCTION OF SOLAR GENERATING FACILITY

The Utica Solar Facility is planned to be constructed over a three month period in late 2022. Construction would occur in three major construction phases, as follows:

- Mobilization, site preparation, fencing, grading, trenching.
- Installation of solar arrays, collection system structures and wiring.
- Installation of transformer, switchgear, storage batteries, gen-tie; system testing, commissioning, interconnection, site cleanup and demobilization.

The phases would overlap to some extent and for a short period all three would be ongoing concurrently. Each of the construction phases is described in turn below.

Site Preparation Activities

Pre-construction Activities

The site development process will begin with pre-construction activities such as surveying and staking for various project elements like internal gravel driveways, PV array locations, electrical trenches, equipment pads, and support structures. The next step will be construction mobilization, which will include delivering initial equipment, supplies, and temporary construction trailers to the site.

Clearing and Grading

Prior to facility construction, the site will be cleared of vegetation, graded and compacted. Since the existing ground is generally level, the solar development can be accommodated without mass grading. The existing topsoil will not be removed. Final grades will be designed to provide for positive drainage.

Measures for erosion and sediment control will also be implemented, as described in “Stormwater Management and Erosion Control” below.

Construction Staging

The project would include one staging yard located on up to 5 acres in the northern portion of the site. The staging area will include construction offices, a first aid station, worker parking, areas for equipment storage, cleaning, and maintenance, and a truck unloading area. Portable chemical toilets will provide for sanitary needs and bottled drinking water will be delivered to the site. The staging area will require a power source for temporary lighting, which will either be supplied by portable generators or from the existing power distribution line on Utica Avenue. The staging area will be enclosed by security fencing. During construction, the additional small laydown areas would be located within the project site for temporary material storage and assembly of solar systems prior to installation.

Construction Entrance and Internal Driveways

Construction access through the project site will be provided by temporary all-weather driveways composed of native compacted soil and treated with dust palliative as needed. Temporary project entrances will be composed of gravel, and tire wash racks will be installed at the project entrance for washing wheels of construction vehicles prior to exiting in order to avoid tracking of mud and sediment onto Utica Avenue.

Construction access to the project site would be obtained from a new project entrance at the northwest corner of the site. The dry former irrigation canal crossing the northwest corner of the site includes an existing berm at this location which will be widened by approximately 20 feet to accommodate the vehicular access entrance to the project site.

Perimeter Fencing

Prior to installation of solar arrays, the perimeter of project site will be securely fenced and gated to prevent unauthorized access. The perimeter fencing will consist of 6-foot chain-link galvanized metal topped with standard three-strand barbed wire. Fence posts will either be drilled and grouted or driven into the soil profile using truck mounted vibratory drivers. All fence posts will be capped to prevent the entrapment of small birds. A vehicle access gate will be installed at the project entrance on Utica Avenue; this gate will remain locked when not in use.

In order to allow unimpeded passage of kit fox and other local wildlife through the Utica Avenue Solar Project site, all security fencing will include a continuous 5-inch gap between the bottom of the fence and the ground surface.

Installation of Solar Field

Solar Arrays

The photovoltaic modules selected for the project will be composed of poly-crystalline silicon solar cells arranged on larger panels (measuring approximately 6.5 by 3 feet), and protected with tempered glass panes. The PV cells are dark in color to maximize absorption and minimize reflectance of sunlight.

Construction of the solar arrays will begin with installation of the cylindrical steel posts (or H-beams/C-channels) which will be driven into the ground using truck-mounted vibratory drivers. The posts will be

installed at approximately 10 foot intervals to depths of 4 to 6 feet, with actual depths depending on localized soil conditions and load factors. Next, the torque tubes and motor drivers for the single-axis trackers will be mounted on the installed posts in a north-south orientation. This will be followed by placement of metal racking systems, and finally installation of solar modules on the racking systems.

The configuration of solar arrays shown on the project site plan (see Figure PD-4) consists of single-axis trackers which would rotate on a horizontal axis from east to west as they follow the sun across the sky. Therefore, the rows of solar modules are oriented north-south. Alternatively, the applicant may select fixed-tilt solar arrays for this project instead of single-axis trackers. Under this alternative, the rows of fixed-tilt solar modules would face south with a fixed angle of tilt upward toward the sun. Therefore, under the fixed-tilt alternative, the rows of solar modules would be oriented east-west instead of north-south as shown in the site plan. If the fixed-tilt alternative is selected by the applicant for construction, the area occupied by the solar arrays would be similar to the area indicated in the site plan for the horizontal single axis trackers and would not necessitate expansion of the solar field beyond the project boundary shown in the site plan.

The electrical output from the PV modules will be collected as DC (direct current) in combiner boxes at each array and delivered via underground cables to three 1-MW inverters distributed throughout the site. The cables will be laid in trenches approximately 3 feet deep and one foot wide which will be backfilled with native material after cables are laid. Alternatively, the applicant may elect to utilize approximately 30 smaller-capacity inverters to be distributed throughout the site. This alternative configuration of inverters would not constitute a substantial difference to the overall project compared to the utilization of three larger-capacity inverters as shown on the project site plan.

Permanent Project Entrance and Internal Driveways

The Utica Avenue Solar Project will have direct vehicular access from one project entrance on Utica Avenue at the northwest corner of the site. The project entrance will be designed and constructed in accordance with the Kings County Improvement Standards. As noted above, the project entrance driveway will require the construction of a new crossing over a dry former irrigation canal which runs along the northern side boundary.

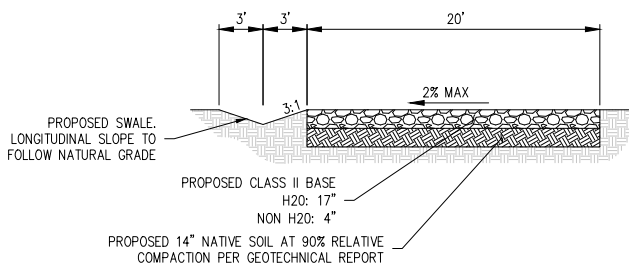
Access through the project site will be provided by internal gravel roadways which will run along the site perimeter inside the exterior project fence and across the solar field at intervals of less than 400 feet. The internal gravel roadways will be 20 feet wide to allow passage and maneuvering of emergency and maintenance vehicles. The distance between the internal parallel internal gravel driveways will provide sufficient access throughout the project to provide access for emergency vehicles and personnel as required by the Kings County Fire Department. The internal gravel driveways will be designed and constructed to have a continually durable dust free surface, in accordance with the Kings County Improvement Standards, and will be permeable to allow percolation of rainfall into the underlying soil.

Signage

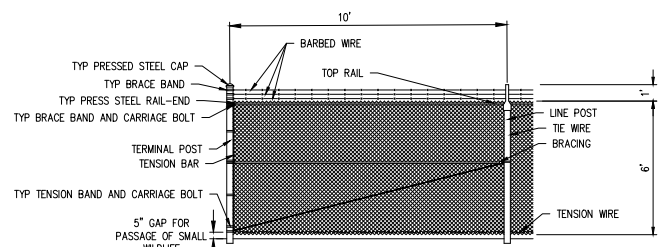
Project signage will consist primarily of identification and safety signs posted around the project perimeter, and safety signage at electrical equipment. During the construction phase, temporary directional signage will be employed as needed. All signage will conform to the sign standards of the Kings County Development Code.



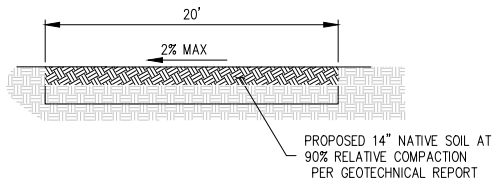
Solar PV Modules on Horizontal Trackers



Typical Gravel Road with Swale
not to scale



Chain Link Line Fence
not to scale



Typical Native Soil Roadway
not to scale



Typical 1 MW Inverter
not to scale



Typical 12 KV Switchgear
not to scale



Typical 3 MW Transformer
not to scale

Source: DK Engineering

Exterior Lighting

Lighting for the solar facility will be designed to provide minimum illumination for safety and security while avoiding direct light spillover onto public roadways or adjacent properties. Permanent exterior lighting will be installed at the site entrance. Lighting systems will be light-activated to automatically come on in the evening and shut off in the morning. Lighting within the solar field will be confined to the inverters, which will be activated only when needed by switch or motion sensors. There will be no lighting within the solar arrays, along any internal access driveways, or around the facility perimeter. Light fixtures will be hooded so as to be directed only on-site and away from other properties.

Installation of Inverters, Transformer, and Interconnection

As mentioned, the DC output from the solar modules would be collected through combiner boxes and delivered to 3 inverters which will convert the generated DC electrical output to AC current. The AC power will be conveyed underground to the single project transformer near the northwest corner of the solar facility which will step up the generated voltage to distribution voltage (e.g., 12-kV) for routing through the on-site switchgear and on to a new utility pole that would serve as the Point of Change of Ownership (POCO). From the POCO pole, the generated power would be transferred via underground conduit to the PG&E-approved Point of Interconnection (POI) utility pole on the Tulare Lake 2108 12-kV distribution line near the northwest corner of the solar facility.

Installation of Battery Energy Storage System (BESS)

The project will include a dedicated energy storage facility adjacent to the facility transformer and switchgear for the purpose of optimizing delivery of generated power to the electrical grid. The energy storage systems are planned to include 3 prefabricated battery modules or containers, each with a storage capacity of approximately 4 MW hours. The battery energy storage system will allow storage of generated power when electricity demand is low, and for delivery of stored power when demand is high. The battery storage units would typically consist of shipping containers 40 feet long by 8 feet wide by 8.5 feet high on concrete foundations. Each battery container would include racks, switchboards, and integrated inverters and HVAC units. The battery units would be tied to a dedicated transformer for stepping voltage up and down as needed for storage and subsequent conveyance to the electrical grid.

Construction Workforce and Equipment

Workforce

During construction, the number of workers would fluctuate depending on the construction stage. As shown in Table PD-1, on the next page, the workforce numbers would be greatest during installation of the solar arrays, especially when this construction stage may briefly overlap with other two stages when a total workforce of approximately 65 construction personnel would be on-site. Construction would generally occur five days per week between 7 AM and 3 PM. Work outside these hours may occur for specialized construction or to make up for unanticipated schedule delays.

Construction Deliveries

The construction of the solar facility will involve the use of numerous pieces of construction equipment and support vehicles at various stages of construction. This will include grading and excavation equipment such as graders, scrapers, dozers, compactors, trenchers, and back-hoes; and general construction equipment like concrete mixers, cranes, hydraulic pile drivers, fork lifts, water trucks, ATVs, pick-up trucks, and generators.

TABLE PD-1
OFF-SITE CONSTRUCTION VEHICLE USAGE, BY CONSTRUCTION PHASE

Vehicles	Estimated Usage		
	Units	Miles/Round Trip	Round Trips/Unit
Phase 1 – Site Preparation <i>(30 work days)</i>			
Water Trucks ¹	1	120	1
Flat Bed Trucks (Equipment Transport)	4	120	2
Gravel Trucks (End Dump)(Delivery)	5	70	6
Concrete Trucks (Delivery)	2	70	2
Freight Trucks (Delivery – Fence Material) ³	2	120	3
Worker Vehicles ²	15	55	30
Phase 2 – Installation of Solar Arrays <i>(60 work days)(Overlaps with Phase 1 for 30 days and Phase 2 for 30 days)</i>			
Water Trucks ¹	1	120	1
Freight Trucks (Solar Modules, Racks, etc.) ³	3	400	10
Freight Trucks (Posts, wiring, etc.) ³	2	120	9
Flat Bed Trucks (Equipment Transport)	3	120	2
Worker Vehicles ²	30	130	60
Phase 3 – Installation of Inverters, Transformer, Switchgear, Batteries, Interconnection <i>(30 work days)(Overlaps with Phase 2 for 30 days)</i>			
Water Trucks ¹	1	120	1
Ready Mix (Delivery)	1	70	1
Freight (Inverters, Transformer, Batteries, etc.) ³	3	400	3
Flat Bed Trucks (Equipment Transport)	2	120	2
Worker Vehicles ²	20	130	30

¹ Water trucks are anticipated to be filled with water from existing agricultural wells in the vicinity.

² No carpooling or transit use is assumed for workers' traveling to and from the project site.

³ Freight deliveries are assumed to originate from the Ports of LA/Long Beach (solar modules, racking systems, support structures, batteries, and major electrical components) and Fresno (wiring, fence material, construction equipment, etc.).

Deliveries of solar modules and support structures, electrical components, concrete and aggregate will occur throughout the construction period. The equipment and material deliveries will originate in various locations in central California and will follow designated truck routes to travel to the project site. It is anticipated that deliveries of solar modules, racking systems, batteries, and major electrical components would originate from the Port of Oakland and/or Ports of LA/Long Beach. It is anticipated that aggregate supplies would be obtained from the nearest source at Avenal Paving and Gravel located on Highway 33 between Avenal and Coalinga. Similarly, it is expected that concrete would be supplied

from a ready-mix plant located outside Coalinga. All other construction deliveries are expected to originate from the Fresno area.

The estimated number of deliveries during all construction stages is shown in Table PD-1. Throughout the 60 days of construction, the project will receive an average of 2 deliveries per day. During a very brief period when all three construction stages may overlap, the project will receive an average of 4 deliveries per day.

Table PD-2 lists the types of equipment that will be utilized during the three main construction stages for the project.

TABLE PD-2
ON-SITE CONSTRUCTION EQUIPMENT USAGE, BY CONSTRUCTION PHASE

Equipment	Estimated Usage		
Phase 1 – Site Preparation <i>(30 work days)</i>	Units	Hours/Day (5 days/week)	Days/Unit
Water Truck	1	7	20
Bulldozer	1	7	10
Graders	2	7	20
Compactors	2	7	20
Skid Loader	1	7	5
Front-End Loaders	2	7	10
Phase 2 – Installation of Solar Arrays <i>(60 work days)(Overlaps with Phase 1 for 30 days and Phase 3 for 30 days)</i>	Units	Hours/Day (5 days/wk)	Days/Unit
Water Truck	1	7	60
Tractors – post drivers	3	7	60
Forklift	1	7	50
Trenchers	1	4	60
Pickup Truck	1	7	60
ATVs	2	7	60
Phase 3 – Installation of Inverters, Transformers, Switchgear, Batteries <i>(30 days)(Overlaps with Phase 2 for 30 days)</i>	Units	Hours/Day (5 days/wk)	Days/Unit
Water Truck	1	7	20
Forklift	1	4	10
Trencher	1	4	4
Backhoe	1	4	5
Crane	1	2	2

Site Management during Construction

Dust Suppression and Soil Conditioning

During construction, non-potable water will be used for dust control and soil conditioning during earthwork. Based on past experience with similar projects, the water demand for preparation and construction of the 29.5-acre Utica Avenue Solar Project would average 0.2 acre-feet per acre (af/ac), resulting in a total consumption of 5.9 acre-feet of water during the 3-month construction period. It is anticipated that water for grading and construction will be obtained from an existing agricultural well in the project vicinity or will be purchased from a water purveyor and hauled to the project site.

Stormwater Management and Erosion Control

During grading and construction, soil stabilization and runoff control measures would be required to prevent erosion and sedimentation. The particular measures that would be appropriate for conditions within the Utica Avenue Solar site would be specified in the Storm Water Pollution Prevention Plan (SWPPP), as required for all projects over 1 acre in size by the State Water Resources Control Board. The SWPPP would specify Best Management Practices (BMPs) such as stormwater runoff control and hazardous waste management measures, and include monitoring and reporting procedures.

Typical measures will include: diversion of runoff away from disturbed areas, protective measures for sensitive areas, mulching for soil stabilization, straw-bale barriers, and siltation or sediment ponds. Specific BMPs will be determined during the final engineering design stage for the project.

Construction Waste Recycling and Disposal

The waste generated during construction will primarily consist of non-hazardous waste materials such as packing containers and materials, waste lumber, wood pallets, scrap metal, glass and paper. These waste materials will be segregated on-site for recycling or disposal at a Class III landfill. All waste generated by the project would be managed, collected, and disposed of in accordance with the Solid Waste Management Plan (SWMP) to be prepared and implemented as required by the Kings County Development Code.

Some quantities of hazardous wastes will be generated during construction. These waste materials will include waste paint, waste solvents, waste oil, oily rags, used batteries, etc. Hazardous wastes generated during construction will be either recycled or disposed of at a Class I disposal facility, as required.

Revegetation of Completed Project Areas

Upon completion of each section of the solar facility, the exposed soils beneath and around the solar arrays will be vegetated to prevent erosion and provide dust control. The exposed areas will be planted with an approved seed mix that will contain only “low water use” plant species, thus minimizing water use, discouraging weed infestation, and providing habitat value for native wildlife species.

OPERATION OF SOLAR GENERATING FACILITY

The Utica Avenue Solar Project will involve facility operation and monitoring, facility maintenance, and security. These are described in turn below.

Facility Operation and Monitoring

Operational activities will primarily involve monitoring and management of solar generation, which will occur during daylight hours year round. The project proponent will contract with an off-site O&M provider with a facility in the area. Operations staff will not be stationed at the Utica Avenue Solar Facility, but will manage the facility remotely via SCADA (“Supervisory Control and Data Acquisition”) systems. Operators will monitor and analyze the collected data to determine maintenance needs, respond to automated alerts from the monitoring systems (i.e., in the event of equipment failures or abnormalities), and communicate with customers and transmission facility operators.

The solar facility will not include an Operations and Maintenance (O&M) building and thus would not require a permanent septic and leachfield system for wastewater treatment. Instead, sanitary needs of maintenance staff would be provided by portable chemical toilets which would be serviced by a private contractor.

Facility Maintenance

Equipment and Infrastructure Maintenance

Maintenance personnel will also visit the Utica Avenue Solar Facility regularly to conduct visual inspections of equipment, internal roadways, and fencing, and perform maintenance, make repairs, and clean solar panels as necessary. It is expected that one or two maintenance personnel would visit the site periodically, with more workers added when repairs or installation of replacement equipment is needed. (See ‘Operations Personnel’ below for an overview of staffing levels and functions.)

Vegetation Management

Vegetative cover within the solar facility will generally be kept low through mechanical means (e.g., mowing, trimming, hoeing) to prevent shading of solar panels and to minimize buildup of combustible fuel loads. The short vegetation cover will also allow passage of emergency vehicles, and maintenance and panel washing vehicles.

Weed and Pest Control

As required under the County Development Code, the Utica Avenue Solar Project will include implementation of a Pest Management and Weed Abatement Plan (PMWAP). The Pest Management Plan will be directed toward prevention and control of infestations by rodents such as rats, ground squirrels, gophers, and voles which can cause damage to project structures and spread diseases. The PMWAP will emphasize preventative measures such as vegetation management in order to avoid impacts to protected wildlife species. Natural or ecological control through predation by hawks would also provide incidental control of rodent populations. The use of eradication measures such as application of rodenticides would only be employed as a last resort.

Fire Safety

The project will include a number of design and operational measures for fire prevention and suppression. Design measures include incorporation of County design standards for minimum driveway widths, ground clearance, and accessibility to all areas of the project. Fire prevention measures will include vegetation management as described above to minimize the potential for grass fires. All electrical equipment (including inverters and transformers) not located within a larger structure will be designed specifically for outdoor installation, and all electrical equipment will be subject to product safety standards. Vehicles and equipment will be required to be parked or stored away from vegetated areas. All construction and operations personnel will be trained in fire prevention and suppression measures, including the safe shut-down of electrical equipment during emergency incidents. Portable carbon dioxide (CO₂) fire extinguishers will be mounted at the inverter and transformer pads. Smoking will be permitted only in designated areas.

As described above, the project would include battery energy storage facilities consisting of a number of prefabricated electrical enclosures containing battery banks and associated switchboards, and inverters, along with an external transformer. The enclosures would have appropriate fire suppression systems built to code. Each energy storage unit used on site will be designed in compliance with Section 608 of the International Fire Code, which has been adopted by the State of California to minimize risk of fire from stationary storage battery systems and contain fire in the event of such an incident. Under California law, the battery enclosures also must comply with Article 480 of the Electrical Code, which presents requirements for stationary storage batteries. Article 480 provides the appropriate insulation and venting requirements for these types of systems, further preventing associated risk of fire from the battery enclosures on the project site.

Prior to commencement of site work on the project, the fire prevention and emergency action plans to be implemented during project construction and operation would be prepared and formalized in coordination with the Kings County Fire Department.

Operational Water Demands

The majority of water demands during facility operations will be for cleaning of solar modules, and to a lesser extent general operational activities. These are described in turn below.

The PV modules will be washed periodically to remove dust in order to maintain efficient conversion of sunlight to electrical power. The cleaning interval will be determined by the rate at which electrical output degrades between cleanings. Periodic panel washing will likely be most needed during the dry summer months when there is an increased potential for deposition of windblown dust from nearby agricultural operations. It is anticipated that panel washing will be required up to two times per year, and will be accomplished using light utility vehicles with tow-behind water trailers. No chemical cleaners will be used for module washing. It is estimated that water demands from one complete cycle of panel washing will be approximately 48,879 gallons for the 3 MW project. This estimate is based on a water usage rate of 0.05 acre-feet (16,293 gallons) per MW at operating PV solar facilities in the southwestern U.S. (UCOWR 2013). Two panel cleaning cycles per year will use approximately 97,758 gallons, or 0.30 acre feet of water.

General operational activities, such as washing or rinsing equipment, hand washing, and other non-toilet uses, is estimated to require approximately 6,000 gallons (0.02 acre feet) of non-potable water annually. This is based on a conservative (high end) consumption rate of 2,000 gallons per MW per year.)

Based on the annual water consumption estimates provided above, the combined operational water use by the Utica Avenue Solar Facility for panel washing (0.30 afy), and general operational uses (0.02 afy) will total approximately 0.32 acre-feet of water annually over the approximately 30-acre project site. This is equivalent to 0.01 acre-feet per acre per year over the project site.

Operational water supplies will be provided from an existing agricultural well in the vicinity or purchased from a water purveyor in the area and hauled to the site.

Small quantities of potable water for drinking and other uses will be delivered to each site by a water delivery service.

Security

The perimeter of the solar facility will be securely fenced and gated to prevent unauthorized access. The facility operator will contract with a private security company to provide security services during construction and operation. Electronic surveillance equipment such as infrared security cameras and motion detectors will be installed around the solar facility, with video feeds transmitted in real time to the off-site security contractor for monitoring. In the event that the surveillance system detects a breach, a security representative will be dispatched to the site, as needed, and the County Sheriff's office will be notified as appropriate.

DECOMMISSIONING AND SITE RECLAMATION

At the end of its useful life, the Utica Avenue Solar Facility will be decommissioned and the land returned to its pre-project state as farmland or grazing land. (It is anticipated that the initial purchase contract for solar generation will have a term of 20 years, although the term could be extended by several years through amendments to the purchase agreement.) Once the solar facility is de-energized, the facility will be decommissioned and the site will be reclaimed in accordance with the Decommissioning and Soil Reclamation Plan to be approved by the County prior to issuance of a building permit.

Under the Decommissioning and Soil Reclamation Plan, the deconstruction process will involve removal of all solar arrays, equipment, battery containers, concrete pads, electrical cables, fencing, and other material. Equipment and materials will be reused and/or recycled to the extent practicable. Since these decommissioning activities will involve exposure and disturbance of soils, measures for erosion and sediment control will be implemented in accordance with a Storm Water Pollution Prevention Plan (SWPPP) that will be required for decommissioning. Water for dust suppression would also be required, with the overall volume of water required expected to be similar to the volume used during construction. Upon complete removal of equipment and salvageable material, the site will be cleared of any remaining trash and debris.

After the last remnants of the solar facility are removed and hauled off-site, the land will be tilled to restore the soils to a density and consistency suitable for agriculture. Finally, the site will be reseeded with an appropriate weed-free seed mix in order to provide soil stability and moisture retention prior to the resumption of agricultural activity.

It is expected that the decommissioning of the Utica Avenue Solar Facility will involve a similar level of activity as the original project construction, since it will essentially involve construction in reverse or

deconstruction. Decommissioning may involve less equipment use and fewer material deliveries, and the time required for decommissioning may be less than the duration of the original project construction.

2.3. SURROUNDING LAND USES AND SETTING

The lands surrounding the Utica Avenue Solar Project site consist mainly of fallow and cultivated agricultural lands along with related irrigation canals, ditches, power lines, and farm roads (see Figure PD-2 – Project Vicinity). Other land uses in the project vicinity include one agricultural dwelling with outbuildings located 0.5 mile to the northwest, and the Sandridge Farm complex (with no residences) located one mile east. There are no other dwellings or ranch complexes within a 5-mile radius of the project site.

The nearest population centers include: the community of Kettleman City located 7 miles northwest; the City of Avenal located 16 miles west; and the City of Corcoran located 20 miles northeast. The Kern County line is located 10 miles south.

2.4. RELATED PROJECTS

The Utica Avenue Solar Project is planned as a stand-alone facility and is not part of a larger project or series of projects. The only other solar project in the south County area is the Leo Solar Project, a 5 MW solar project located 10 miles south on the Kern County line, which was approved by the Kings County Planning Commission on January 6, 2020 but has not begun construction. There are no other pending or approved solar PV projects in the project vicinity. It is noted that the Jackson Ranch Specific Plan project, a planned highway commercial development located 3 miles west at the intersection of Utica Avenue and I-5, was approved by the Kings County Board of Supervisors on December 8, 2020, but has not yet begun construction.

Other projects in Kings County include 33 solar PV generating projects that have approved or pending Conditional Use Applications, for a total potential generating capacity of 2,180 MW. To date, a total of 31 solar PV projects, with a total generating capacity of 1,927 MW, have been approved by Kings County. Of these, 25 solar projects have been completed or partially completed, for a total of 1,250 MW. The 6 remaining approved (but not yet constructed) solar projects have a total potential generating capacity of 677 MW. An additional two solar PV projects, with a potential generating capacity of 253 MW, have pending CUP applications with Kings County, including the subject 3 MW Utica Avenue Solar Project. These projects are considered in the cumulative impact analysis in section 4.21. *Mandatory Findings of Significance*. A table listing the details of these “cumulative projects” (Table MFS-1) is contained in section 4.21, along with an exhibit (Figure MFS-1) showing the location of each.

2.5. OTHER PERMITS AND APPROVALS THAT MAY BE REQUIRED

The following permits and approvals for the Utica Avenue Solar Project may be required from Kings County and other permitting agencies:

County of Kings

- Tentative Parcel Map to split the project parcel from large larger existing parcel.
- Encroachment Permits for work in County road rights-of-way, and for utility crossings at the County road.
- Transfer Permits obtained from Kings County Public Works Department for oversized or excessive loads on County Roads.
- Building Permits for all aspects of site preparation, grading, and construction for the project.

Other Agencies

- San Joaquin Valley Air Pollution Control District (SJVAPCD): 1) Indirect Source Review (ISR) under Rule 9510; 2) Approval of construction Dust Control Plans under Regulation VIII; 3) Portable Equipment Registration, under Rule 2280, for portable generators and compressors used during construction; 4) Permit to Operate, under Rule 2010, for any equipment greater than 50 horsepower resulting in emissions, e.g., standby generators.
- Regional Water Quality Control Board – Central Valley Region (CVRWQCB): Administration of General Permit for Storm Water Discharges Related to Construction Activities under the National Pollutant Discharge Elimination System (NPDES), including oversight of Storm Water Pollution Prevention Plans (SWPPPs).
- State Water Resources Control Board (SWRCB): As the agency with primary jurisdiction for NPDES permitting in California, applicants for projects subject to the Storm Water General Permit (referenced under Regional Water Quality Control Board above) are required to file a Notice of Intent (NOI) with the SWRCB indicating the intent to comply with the General Permit and to prepare a SWPPP.
- California Department of Transportation (Caltrans): Single-trip transportation permits for oversized or excessive loads on State highways. Permits are issued in coordination with the California Highway Patrol.
- California Public Utilities Commission (CPUC): Sole authority for approval of electrical system improvements to be constructed, owned or operated by PG&E, including substations, switching stations, and interconnections, under CPUC General Order No. 131-D.

CHAPTER 3 – ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION:

On the basis of this initial evaluation:


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

X 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 proposed 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 measure 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 adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measure that are imposed upon the proposed project, nothing further is required.

Signature  Date: May 6, 2022
 Noelle Tomlinson, Planner
 Kings County Community Development Agency

CHAPTER 4 – EVALUATION OF ENVIRONMENTAL IMPACTS

4.1. AESTHETICS

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Have a substantial adverse effect on a scenic vista?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
<i>c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>

Environmental Setting

The project site is set in a very sparsely populated rural area in which the dominant land use is fallow and cultivated fields on virtually level terrain. The lands to the north are characterized by the flat expanse of the Tulare Dry Lakebed, and lands to the south are primarily planted in tree crops. The Kettleman Hills are visible in the distance to the west.

Project site itself consists of a fallow field with no buildings or trees (see Figures AES-1 and AES-2 – Site Photos). A dry former irrigation canal runs across the northwest corner of the site adjacent to Utica Avenue. The lands immediately surrounding the project site consist mainly of fallow and cultivated agricultural lands along with related irrigation canals, ditches, power lines, and farm roads. Other land uses in the project vicinity include one agricultural dwelling with outbuildings located 0.5 mile to the northwest, and the Sandridge Farm complex (with no residences) located one mile east. There are no other dwellings or ranch complexes within a 5-mile radius of the project site. Interstate 5 passes through the project vicinity approximately 3 miles west, and a PG&E high-voltage transmission corridor runs parallel to Interstate 5 approximately 2 miles west of the project site.

The foothills and mountains of the Coast Ranges are visible from the project site in the distance to the west. The Kettleman Hills rise to an elevation of about 950 feet at a distance of approximately 7.5 miles from the project site. Beyond these foothills, the first ridge of the Diablo Range reaches elevations of approximately 4,300 feet at a distance of about 27 miles west. At these distances, the foothills and mountains make up a very small portion of the overall field of view from the project site.



Matchline

Photo 1: Southeastward view overlooking project site from northwest corner of site

Matchline



Photo 2: Southwestward view over lands adjacent to and west of site

Photo date: January 13, 2022

Utica



Matchline

Photo 3: Northwestward view over lands on north side of Utica Avenue, diagonally opposite project site to northwest

Matchline



Photo 4: Northeastward view over lands north of Utica Avenue, directly opposite project site

Photo date: January 13, 2022

Regulatory Context

State of California

California Scenic Highway Program

California’s Scenic Highway Program was created in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. A highway may be designated as “scenic” depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers’ enjoyment of the view.

Within Kings County, there is one highway segment which is designated by the state as an eligible scenic highway. This segment comprises an 8-mile stretch of SR-41 extending southwest of SR-33 to the Kern County line and then on San Luis Obispo County. This scenic highway segment is located 11 miles southwest of the Utica Avenue Solar Project site at its nearest point. None of the roadways in the project vicinity are designated or proposed scenic routes (Caltrans 2011).

Kings County

2035 Kings County General Plan

The Open Space Element of the 2035 Kings County General Plan describes the important scenic resources of the County. The key landscape features in the project area include the Kings River to the northeast and the foothills and mountains in the western portion of County. The project site is approximately 8 miles south of the Kings River, which is contained in an artificial channel with no riparian vegetation in the reach nearest to the project site. The natural channel and adjacent riparian corridor of the Kings River terminates approximately 17 miles north of the project site at the SR-41 bridge. At this distance, the project site is not integral to, nor does contribute to, the scenic value of the river or its riparian corridor (Kings County 2010c).

The following General Plan policies related to aesthetics are relevant to the Utica Avenue Solar Project:

Open Space Element

B. Scenic Resources

OS Policy B1.3.1

Require new development to be designed so that it does not significantly impact or block view 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.

Environmental Evaluation

a) *Would the project have a substantial adverse effect on a scenic vista?*

Less-than-Significant Impact. The Utica Avenue Solar Project site consists of essentially flat agricultural land that is typical of the valley floor, with no topographic variation or features to provide visual interest or vantage points for panoramic views. The only potential scenic vistas in the project vicinity are of the Kettleman Hills and Diablo Range beyond to the west. The low profile of the foothill and mountain ridgelines can be discerned on the distant horizon approximately 7 miles and 27 miles, respectively, from the Utica Avenue Solar Project site, and thus comprise a very small portion of the overall westerly view from the project vicinity. The Utica Avenue Solar Project's solar arrays will not exceed 9 feet in height, thus would not block publicly accessible views of the western hills from Utica Avenue, particularly since the project would be located south of the Utica Avenue and thus would not block westward views from the roadway toward the Coast Ranges. Therefore, the impacts of the Utica Avenue Solar Project on scenic vistas would be *less than significant*.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. There are no State or County-designated or proposed scenic highways or routes in the vicinity of the Utica Avenue Solar Project site (the nearest proposed scenic highway segment is 11 miles southwest of the project site), nor are there any recognized scenic resources or vistas in the immediate area (Caltrans 2011, Kings County 2010c). Additionally, there are no rock outcroppings or significant trees on the project site or in the surrounding area. Similarly, there are no historic buildings on the Utica Avenue Solar Project site or in the vicinity that are listed in the Kings County General Plan Resource Conservation Element (Kings County 2010b) or elsewhere. In summary, there are no known scenic resources that would be substantially damaged by the construction of the Utica Avenue Solar Project, and there would be *no impact* on such scenic resources.

c) *In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less-than-Significant Impact. The Utica Avenue Solar Project would involve installation of solar arrays on the 29.5-acre project site. The solar arrays would be relatively low in profile, reaching a height of up to 9 feet at maximum tilt. The project inverters, transformer, switchgear, and battery containers would also have a maximum height of up to 9 feet. The solar facility would be surrounded by perimeter fencing with an overall height of about 7 feet.

The Utica Avenue Solar Project would replace the fallow fields of the site with the relatively low profile structural elements of a solar generating facility. The rows of solar panels would be similar in scale to rows of permanent tree crops which characterize the lands to the south. The hard edges of the solar equipment would contrast with the softer edges of rural setting, but would not introduce a new dominant visual element that is substantially out of scale with its surroundings. In addition,

over 90 percent of the project would be retained in vegetated ground cover, which would help visually integrate the project with its rural surroundings.

As discussed under ‘Environmental Setting’ above, the visual quality of the project site and its surroundings is relatively low. The land itself is flat and featureless, and the area is not part of a recognized scenic resource. The number of visual receivers in the area who would experience the visual changes resulting from the project, is also low. The only existing residence is located one-half mile from the project site, and there are no other dwellings within a 5-mile radius of the site. Therefore, no residential views would be affected by the project. The only public road that passes alongside the project site is Utica Avenue, which runs along the northern project boundary. Motorists traveling along Utica Avenue would have brief near-ground views of project’s solar arrays and related electrical facilities. Utica Avenue is very lightly traveled, so the number of passing motorists who would have visual contact with the project along this roadway would be small, and the time of contact would be fleeting.

The Utica Avenue Solar Project would result in a visual change of the project site from fallow field to solar generating facility. While this would represent a visual change to the project site, it would not result in a substantial visual change to the surrounding area. Given the relatively small scale of the project, the low visual quality of the site and its surroundings, and the very low number of visual receivers who would experience the change in visual setting, the Utica Avenue Solar Project would not substantially degrade the visual character or quality of public views of the site and its surroundings. Therefore, the visual impacts associated with the Utica Avenue Solar Project would be *less than significant*.

d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The topics of lighting and glare are discussed separately below.

Lighting

Less-than-Significant Impact. Under existing conditions, the project vicinity is subject to intermittent night lighting from headlights from vehicles traveling on Utica Avenue and to a lesser extent the headlights from the constant stream of traffic on Interstate 5. The Utica Avenue Solar Project will introduce new sources of light to the area, although permanent exterior lighting will be confined to the site entrance and the on-site transformer and switchgear yard. Lighting within the solar fields will be confined to the inverter pads, which will be activated only when needed by switch or motion sensors. There will be no lighting along any internal access driveways, or around the project perimeter. Permanent lighting would be no brighter than required to meet safety and security requirements, and would be hooded and directed inward and downward to avoid direct illumination of adjacent properties and public rights-of-way.

During the construction phase, the staging area would have security lighting. Temporary night lighting would be needed if and when construction activity extends into the nighttime hours. As with lighting during facility operations, the temporary lighting would provide the minimum illumination needed and would be directed away from facility boundaries.

Potentially sensitive receptors to unwanted illumination from the project include only the nearest existing dwelling located one-half northwest of the project site which would not be adversely affected by project lighting at this distance. The motorists who would travel along Utica Avenue at night and pass by the project would notice the additional light sources associated with the project, but the volume of this nighttime traffic is very low and the effect would not be significant. Since all lighting within the Utica Avenue Solar Project would be directed away from the roadway, the project lighting would not create direct illumination that could pose a safety hazard to passing traffic on Utica Avenue. Therefore, the lighting impacts resulting from the Utica Avenue Solar Project would be *less than significant*.

Glare

Less-than-Significant Impact. Glare is an intense light effect resulting primarily from the reflection of sunlight off reflective surfaces when the angle of the sun to the surface is such that sunlight is reflected toward the receiver, causing potential discomfort or distraction of the receiver, or potential impairment of vision under extreme conditions. The main source of potential glare from the project is solar panels, but other sources can include vehicle windshields and reflective building materials, as well as direct illumination.

All of the solar panels installed at the Utica Avenue Solar Project will be composed of photovoltaic cells. Solar PV employs glass panels that are designed to maximize absorption and minimize reflection to increase electrical production efficiency. Untreated silicon reflects about one-third of incoming sunlight. To limit reflection, solar PV modules are constructed of dark, light-absorbing materials, and are given an anti-reflective coating or textured surface. With the addition of the anti-reflective coating or treatment, the reflectivity can be reduced to less than 4 percent of incoming sunlight (EE Times 2012). By comparison, the reflectivity of standard glass is over 20 percent, or about double that of uncoated solar panels. By contrast, concentrating solar thermal systems, which employ arrays of highly polished mirrors to refocus the solar radiation on a receiver tube or tower, reflect about 90 percent of the incoming sunlight (FAA 2018).

PV solar systems are designed to maximize absorption of sunlight by keeping the panel surfaces oriented directly to the sun as much as possible. When the sun is high in the sky, sunlight is reflected skyward. However, when the sun is low in the sky (i.e., at dawn or dusk), the angle of reflectance increases, thereby increasing the potential for reflection at or near ground level. There is some potential for minor short-duration ground-level reflection with fixed-tilt solar arrays, which are oriented lengthwise in an east-west direction. When the sun is very low in the sky at sunrise and sunset (i.e., in the east or west), there is a potential for sunlight to be reflected obliquely from the east-west oriented panels at a similarly low angle to observers at ground level. The potential for ground-level reflection is somewhat less in tracking systems, which are arranged in north-south oriented rows and allow panels to follow the sun across the sky from east to west. Since tracking systems minimize the angle of incident sunlight at the panel surface, the angle of reflectance is also smaller thus tending to direct reflected sunlight skyward even when the sun is low in the sky. Since tracking systems are arranged in north-south oriented rows, the potential for sunlight to be obliquely reflected to ground level receivers is further reduced since the sun is never low in the sky in a northerly or southerly direction.

Since solar panels are designed specifically to maximize absorption of sunlight and minimize loss of incident sunlight through reflection, the potential for glare is also greatly reduced even during occasional periods when sunlight from module surfaces may be reflected to ground-level receivers.

Therefore, regardless of whether the solar arrays are arranged as fixed-tilt or single-axis trackers, the very low level of reflectance from the solar modules in either configuration would not result in intense glare that would adversely affect views in the area or cause discomfort to receivers.

Residences in the vicinity of solar facilities can be subject to potential low-intensity glare from solar panels. However, since the only residence in the vicinity is at least one-half mile from the Utica Avenue Solar Project site, and is visually screened from the project by intervening landscape trees, the project would produce no potential glare effects which would adversely affect this residential receiver.

Automobiles passing by the project solar facilities could be subject to low-intensity glare from nearby solar panels at certain times of day. As discussed above, the potential for glare would be greatest at sunrise and sunset when oblique reflections could be received at or near ground level. However, due to the low level intensity of reflection from the PV solar panels and the short duration of driver exposure to any low-intensity reflected light, the very low volume of traffic passing directly by the project on Utica Avenue would not be subject to significant visual impairment or a safety hazard due to potential glare.

In summary, the potential for glare effects from the project solar facilities to adversely affect daytime views or cause visual impairment would be *less than significant*.

REFERENCES – AESTHETICS

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- FAA 2018 Federal Aviation Administration (FAA). 2010. *Technical Guidance for Evaluating Selected Solar Technologies on Airports*. April. https://www.faa.gov/airports/environmental/policy_guidance/media/FAA-Airport-Solar-Guide-2018.pdf
- Kings County 2010b Kings County. 2010. *2035 Kings County General Plan – Resource Conservation Element*. Adopted January 26, 2010. <http://www.countyofkings.com/home/showdocument?id=3112>
- Kings County 2010c Kings County. 2010. *2035 Kings County General Plan – Open Space Element*. Adopted January 26, 2010. <http://www.countyofkings.com/home/showdocument?id=3114>

4.2. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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, including the Forest and Range Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) <i>Conflict with existing zoning for agricultural use, or a Williamson Act contract?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) <i>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))?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) <i>Result in the loss of forest land or conversion of forest land to non-forest use?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Agricultural Setting

The project site consists of a permanent fallow field or pasture with no access to irrigation water supply which would support cultivation of row crops or tree crops. The lands immediately surrounding the project site are also in pasture or fallowed. Lands to the south which have access to irrigation water are planted in row crops and tree crops.

Geomorphology and Soils

The parent materials of the soils in the project area originate from marine sediments of the Coast Ranges formed millions of years ago when these lands were on the seabed. These formations, which primarily consist of fine-grained shales, were uplifted over time, and were then subject to erosional forces which transported these sediments downstream to the west side of the valley where they formed large alluvial fans. The project site is on a lower alluvial fan terrace near the margin of the historic Tulare Lake bed and is comprised of older alluvium characterized by deep sandy soils (GGs 2022).

NRCS Soil Survey

The most recent comprehensive soil survey of Kings County was completed in 1985 by the National Resources Conservation Service (NRCS), formerly the Soil Conservation Service (SCS). According to the Kings County Soil Survey, the soils on the Utica Avenue Solar Project site consist largely of Milham sandy loam (91.5%), with a small 2.5-acre area of Rambla loamy sand (8.5%) along the eastern and northern margins of the project site. The Milham soil is described as very deep and moderately well-drained, saline-alkali soils. The shrink-swell (expansion) potential of this soil is low to moderate, runoff is slow, permeability is slow, and hazard to erosion is slight, and wind erodibility is moderate. The Rambla soil is described as very deep and saline-alkaline. The expansion potential of this soil is low, runoff is slow, permeability is very slow, hazard to erosion is slight, and wind erodibility is low. The saline-alkaline condition of the project soils causes high corrosivity to steel and concrete. The site soils are listed in Table 5 along with their NRCS land capability classification, Story Index ratings, and Important Farmland Designations under the Department of Conservation Farmland Monitoring and Mapping Program (FMMP), along with brief notes on soil limitations as noted by NRCS.

NRCS Land Capability Classification

Under the soils classification system of the NRCS, soils are classified according to eight broad ‘Land Capability’ classes, with Class I and II soils being the most fertile and well suited for cultivation, and Class VII and VIII soils having severe limitations for cultivation. According to the NRCS Soil Survey of Kings County, the Milham sandy loam has a Land Capability Class rating of IIs (irrigated) and VIIs (non-irrigated). The Rambla loamy sand soil has a Land Capability Class rating of IIIw (irrigated) and VIIw (non-irrigated). Class VII soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to pasture, grazing, forestland, or wildlife habitat. Class III soils have severe limitations that restrict the choice of plants or require special conservation practices, or both. The letter “s” indicates that the soil has soil limitations in the root zone such as salinity. The letter “w” indicates excess water such as a high water table. Both site soil units have slow permeability (NRCS 1986). The agricultural capability of the soil units on the site are summarized in Table AG-1.

TABLE AG-1
AGRICULTURAL CAPABILITY OF SOILS ON UTICA AVENUE SOLAR PROJECT SITE

Soil Unit	NRCS Map Unit Symbol	Acres in Utica Avenue Site (Approx.)	NRCS Land Capability		Storie Index Rating ¹	Important Farmlands Category (Site-Specific)	NRCS Soil Limitations
			Irrigated	Non-Irrigated			
Milham sandy loam	144	27.0	IIs	VIIs	76	Grazing Land ²	S = soil limitations within the rooting zone such as salinity.
Rambla loamy sand	139	2.5	IIIw	VIIw	51	Grazing Land ²	W = excess water such as high water table. Excess soil; excess sodium.
Total Acres		29.5					

¹ Storie Index rating does not consider availability of water supply for irrigation.

² Mapped by FMMP as Grazing Land where land has not been irrigated for at least 4 years (see Figure AG-1).

Sources: NRCS 1986; CDOC 2020.

Storie Index Ratings

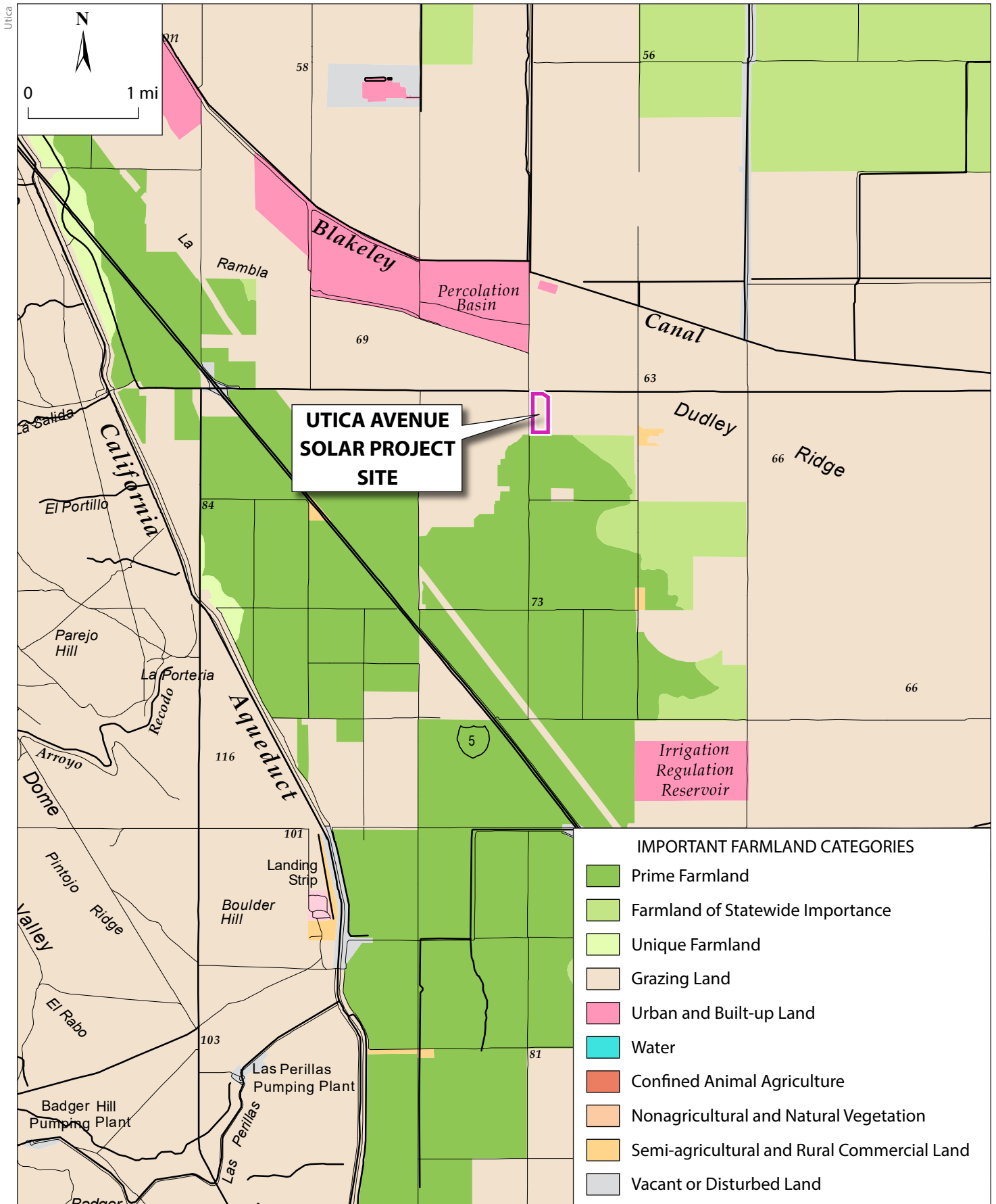
The second land capability system applied by NRCS, called the Storie Index, is specific to California. The Storie Index rates the suitability of soils for general intensive agriculture, and assumes all soils to be under irrigation. Soils with a Storie Index rating of 80 or greater are classified as Grade 1 or prime soils. For the soils of the Utica Avenue Solar Project site, the Storie Index ratings and corresponding numeric grades are as follows: Milham sandy loam – 76 (Grade 2); and Rambla loamy sand – 51 (Grade 3). Due to the salinity of the Rambla soil, planting is limited to salt-tolerant species (NRCS 1986). (As discussed below, the project site does not have access to irrigation water supplies; therefore, the Storie Index Ratings, which assume irrigation, do not reflect the actual suitability of the soils for cultivation. The NRCS classification of VII for both soils without irrigation is a more accurate indicator of the agricultural capability of the soils on the project site; that is: “unsuitable for cultivation.”

Irrigation Water Supply Constraints

The project site is located in the Dudley Ridge Water District (DRWD) which provides imported surface water supplies from the State Water Project (SWP) to landowners in the District. In 1998, the project site was annexed to the Dudley Ridge Water District as part of an approximately 3,942-acre annexation of lands owned by Sandridge Partners. The project site was “subordinately” annexed, meaning that it was only eligible to receive water supply from the Water District if there was excess water available in any given year that was not allocated to other lands in the District. No excess surface water has been available since the 1980s to allow delivery of water to the project site. In addition, the nearest District water conveyance facility is located about two miles from the project site, so water delivery to the site would be infeasible in any case. In addition, the groundwater underlying the Water District (including the project site) is not usable for irrigation due to low yields and poor quality. The California Department of Water Resources (DWR) characterized the District’s groundwater situation in Bulletin 118-98 as “groundwater unavailable or unusable” (DRWD 2020). In summary, the project site has no agricultural water available, either from surface water or groundwater sources, for purposes of crop irrigation.

Farmland Mapping and Monitoring Program

The California Department of Conservation (CDOC) administers and maintains the statewide Farmland Mapping and Monitoring Program (FMMP), under which farmland is mapped by several categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Grazing Land. The first three of these categories are identified as “Farmland” in CEQA Guidelines Appendix G (see item ‘a’ under Environmental Evaluation below). Figure AG-2 is based on the most recent edition of the Important Farmland Map published by CDOC for Kings County. As shown, the entire 29.5-acre project site is mapped as “Grazing Land,” which is defined as land on which the existing vegetation is suited to the raising of livestock (CDOC 2020). Grazing Land is not included among the categories that define “Farmland” in CEQA Guidelines Appendix G.



Source: CDOC, 2018

Important Farmlands
Figure AG-1

Regulatory Context

State of California

Williamson Act

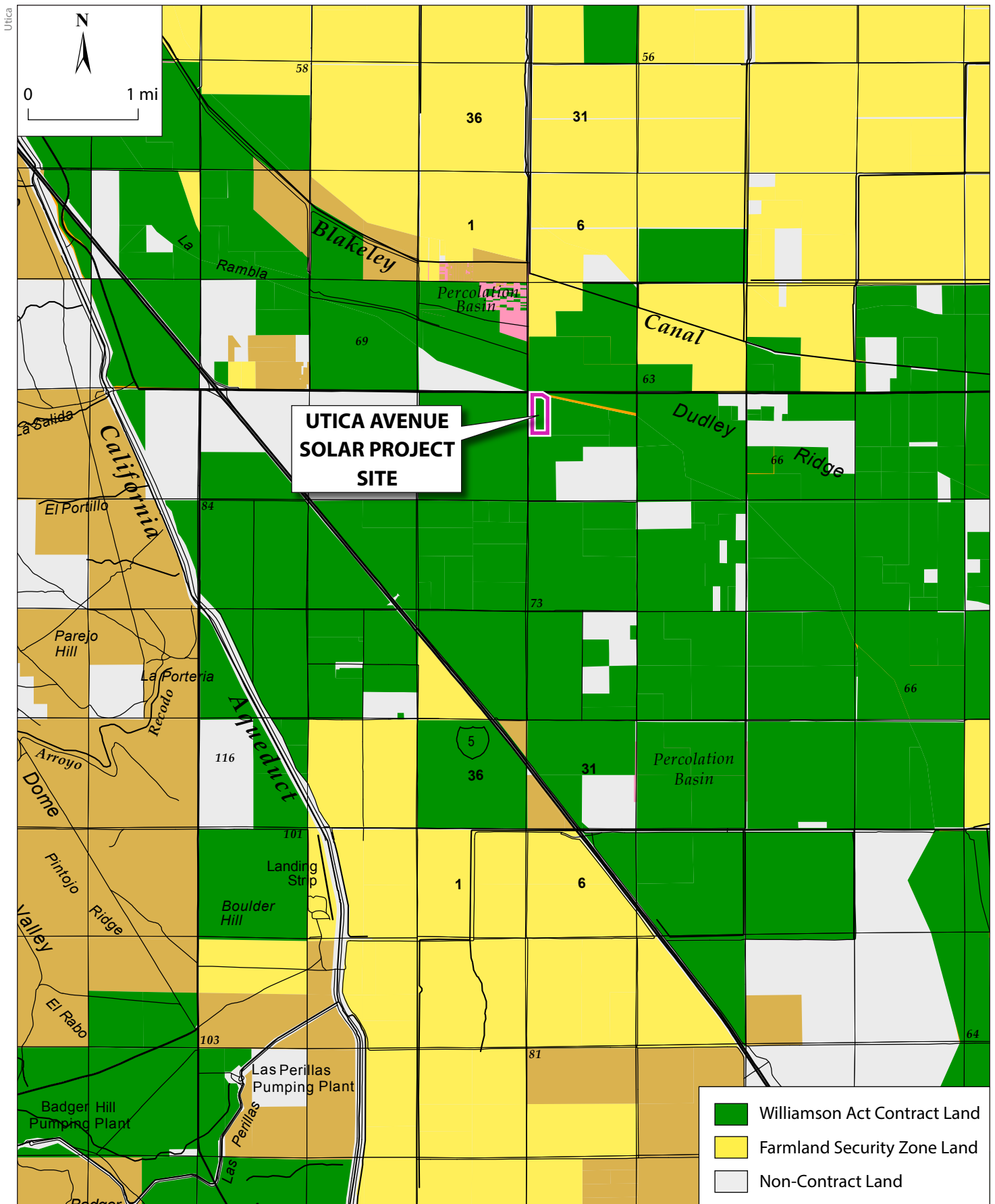
The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting the use of those lands to agricultural or compatible uses. There are two types of contracts available, including Land Conservation contracts, which have a term of 9 years, and Farmland Security Zone (FSZ) contracts, which have a term of 18 years. In return for placing their lands under these contracts, the restricted parcels are assessed at reduced valuations and therefore are subject to lower property taxes.

The Williamson Act stipulates that local governments adopt rules governing the administration of agricultural preserves, including rules related to compatible uses, provided the rules are consistent with the following principles of compatibility (Gov. Code § 51231).

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

- (1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserve.*
- (2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.*
- (3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.*

The Kings County Assessor's records indicate that the Utica Avenue Solar Project site is currently under a Land Conservation Contract pursuant to the Williamson Act (see Figure AG-2). The Kings County Board of Supervisors has not made a determination that solar development of Williamson Act contracted lands in the southern part of the County is consistent with the Government Code principles of compatibility as set forth above. Therefore, development of the Utica Avenue Solar Project may not occur with the Williamson Act Contract in place on the site, and would require that the Williamson Act contract be cancelled prior to site development. The cancellation of Williamson Act contracts in the "County of Kings Implementation Procedures for the California Land Conservation 'Williamson' Act of 1965, including Farmland Security Zones" (Kings County 2020). Appendix G of the Implementation Procedures sets forth the procedures for Williamson Act contract cancellations, including findings which must be made for the granting of such cancellations. For the Utica Avenue Solar Project, the principal finding to be made is "that the cancellation is in the public interest." For Williamson Act contract cancellations, only the approval of the County Board of Supervisors is required, unlike cancellation of Farmland Security Zone contracts which require the approval of the Board of Supervisors and the California Department of Conservation.



Source: CDOC, 2015

Williamson Act Contract Lands
Figure AG-2

It is noted that partial cancellations of Williamson Act contracts are permitted. In the current case, this means that although the existing Williamson Act contract covers the entire 151.5-acre parcel containing the project site, only the 40-acre parcel encompassing the project site, which is to be split from the larger parcel under a pending Tentative Parcel Map, would be subject to cancellation. The existing Williamson Act contract would remain in effect on the remaining 111.5-acre parcel created by the Parcel Map.

Kings County

Kings County Priority Agricultural Land Model

The Kings County Community Development Agency has developed a model which considers additional factors in defining the value of farmlands in order to rank County farmlands on a priority basis. The factors considered in the model include soil classification, crop value, availability of water resources, the need for open space buffers between urban areas, and the planned orderly growth of communities. The resulting mapping of Priority Agricultural Land, as mapped in the General Plan Resource Conservation Element (Figure RC-13) shows that the Utica Avenue Solar Project Site is mapped “Low-Medium Priority” (Kings County 2010b). On November 12, 2020, the map category applied to the Utica Avenue Solar Project site was revised to “Low Priority” by the Kings County Community Development Agency upon presentation of evidence from the Dudley Ridge Water District that the project site has no available source of irrigation water, and this justified its re-designation to “Low Priority.” (See Letter from Dudley Ridge Water District contained in Appendix D of this document.)

2035 Kings County General Plan

The Land Use Map of the 2035 Kings County General Plan Land Use Element shows the land use designation on the Utica Avenue Solar Project site as “General Agriculture – 40 acre.” The General Agriculture designation falls under the broader General Plan category of Agricultural Open Space. In addition to a range of agricultural uses and ancillary activities, the General Plan LU Policy B7.1.3 allows solar voltaic generating facilities within the Agricultural Open Space areas of the County (Kings County 2010a).

Kings County Development Code

As designated in the Kings County Zoning Plan, the entire Utica Avenue Solar Project site is zoned “AG-40 General Agricultural-40” (Kings County 1964). As provided in Article 4 of the Kings County Development Code, commercial solar photovoltaic electrical generating facilities are permitted in this zoning district subject to a granting of a Conditional Use Permit by the Kings County Planning Commission (Kings County 2016).

Article 11, Section 1112(B)(2) of the Kings County Development Code requires that commercial-scale solar photovoltaic electrical facilities conform to specified standards. Most of these standards relate to agricultural land (Kings County 2016). The required standards, and the project’s conformity with the standards, are addressed in item ‘b)’ in the Environmental Evaluation that follows.

Kings County Right-to-Farm Ordinance

The Kings County Code of Ordinances Section 14-36.1, the “Notice of Disclosure and Acknowledgment of Agricultural Land Use Protection and Right to Farm Policies of the County of Kings” (Right-to-Farm) requires the approvals of rezonings, land divisions, zoning permits, and residential building permits include a condition that notice and disclosure be provided, which is to be recorded with the property title, that specifically acknowledges and notifies all future owners that they are in proximity to agricultural uses, and lists the types of operations and possible nuisances or inconveniences associated with farming such as equipment and animal noises; farming activities conducted on a 24-hour, 7-day a week basis; odors from manure, fertilizers, pesticides, chemicals, or other sources; the aerial and ground application of chemicals and seeds, dust; flies and other insects; and smoke. The ordinance states that the County does not consider normal farming operations involving these activities and effects to be a nuisance, and that current owners and future purchasers should be prepared to accept such annoyances or discomfort from normal, usual, and customary agricultural operations, facilities, and practices. This Right-to-Farm disclosure and acknowledgement establishes the primacy of agricultural operations over other land uses, and would reduce the potential for conflict which could adversely affect the continued viability of such adjacent agricultural operations (Kings County 2002).

Environmental Evaluation

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

Less-than-Significant Impact. The entire 29.5-acre Utica Avenue Solar Project site is mapped as “Grazing Land” under DOC’s Farmland Mapping and Monitoring Program (FMMP), and no lands within the site are mapped in any of the categories that define “Farmland” under CEQA Guidelines Appendix G (CDOC 2020). Therefore, the Utica Avenue Solar Project would not result in the conversion of Farmland to non-agricultural use and no impact would occur. No mitigation is required.

- b) ***Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

Less-than-Significant Impact. The following discussion begins with a consideration of the Williamson Act, which is followed by a discussion of the applicable provisions of the Kings County Development Code, which constitutes the County’s zoning ordinance.

Williamson Act

The Utica Avenue Solar Project site is currently under a Land Conservation Contract under the Williamson Act. The Kings County Board of Supervisors has not made a determination that solar development of Williamson Act contracted lands in the southern part of the County is consistent with the principles of compatibility pursuant to Government Code Section 51238.1(a). Therefore, development of the Utica Avenue Solar Project may not occur with the Williamson Act contract currently in place on the site, and would require that the Williamson Act contract be cancelled prior

to site development. The cancellation of Williamson Act contracts is provided for in the “County of Kings Implementation Procedures for the California Land Conservation ‘Williamson’ Act of 1965, including Farmland Security Zones” (Kings County 2020). Appendix G of the Implementation Procedures sets forth the procedures for Williamson Act contract cancellations, including findings which must be made for the granting of such cancellations. For the Utica Avenue Solar Project, the principal finding to be made is “that the cancellation is in the public interest.” Given that the proposed project is a renewable energy project which would advance the statewide greenhouse gas reduction goals as enumerated in AB 32 and subsequent statutes, orders, plans, standards, and guidelines, it is expected that the Kings County Board of Supervisors would find the subject cancellation to be in the public interest. Upon cancellation of the Williamson Act contract in effect on the project site, the project would conform to this Development Code standard.

In summary, the Utica Avenue Solar Project would not conflict with the Williamson Act, and therefore would have *no impact* in this regard.

County Zoning

As designated in the Kings County Zoning Plan, the entire site is zoned “AG-40 General Agricultural-40.” As provided in Article 4 of the Kings County Development Code, commercial solar photovoltaic electrical generating facilities are permitted in this zoning district subject to a granting of a Conditional Use Permit by the Kings County Planning Commission. Therefore, the Utica Avenue Solar Project would be consistent with the County’s agricultural zoning for the site upon the granting of the subject Conditional Use Permit for the project.

Article 11, Section 1112(B)(2) of the Kings County Development Code (which is the County zoning ordinance) requires that commercial-scale solar photovoltaic electrical facilities conform to specified standards. Most of these standards relate to agricultural land. The required standards, and the project’s conformance with those standards, are addressed in turn below.

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

Discussion. The General Plan Resource Conservation Element (Figure RC-13) shows that the Utica Avenue Solar Project Site is mapped “Low-Medium Priority” (Kings County 2010b). On November 12, 2020, the map category applied to the Utica Avenue Solar Project site was revised to “Low Priority” by the Kings County Community Development Agency upon presentation of evidence from the Dudley Ridge Water District that the project site has no available source of irrigation water, and this justified its re-designation to “Low Priority.” (See Letter from Dudley Ridge Water District contained in Appendix D of this document.)

- b. *The proposed site shall be located within 1 mile of an existing 60 KV or higher utility electrical line. Small community commercial solar projects (less than or equal to 3 MW) may be located more than 1 mile from a 60 kV or higher transmission line subject to the following findings:*
 - 1) *The project site is located on low or very low priority farmland.*

- 2) *The project site is not restricted by a Williamson Act or Farmland Security Zone contract.*
- 3) *The project will connect to existing utility infrastructure without building new power lines.*
- 4) *The project will not result in any additional easements on agricultural land, other than access easements or easements within the public Right-of-Way.*

Discussion. The project site is not located within 1 mile of an existing 60-kV line or higher. Therefore, the project site is only eligible for a solar facility with a generating capacity of up to 3 MW, as proposed. As a 3 MW solar project, the four required findings can be made, as follows. First, the site is located on low priority farmland as discussed under “Agricultural Setting” above. Second, while the site is currently under a Williamson Act contract, the applicant intends to file a petition for cancellation which the Board of Supervisors is expected to approve based on a finding that the cancellation is in the public interest. Third, the solar facility will connect directly to the existing PG&E 12-kV power distribution line which runs along the south side of Utica Avenue. Fourth, the project will not result in additional easements on agricultural land. Therefore, all of the findings required for approval of the proposed 3 MW solar facility can be made.

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

Discussion. All of the lands within the Utica Avenue Solar Project site are mapped as “Grazing Land” on the most recent FMMP mapping by CDOC. Therefore, the project would not result in the conversion of any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and no agricultural mitigation would be required. As such, this finding is not applicable to the proposed project.

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

Discussion. As required under Development Code Section 112.B.2.d, the project applicant would prepare a Soil Reclamation Plan along with Financial Assurance to ensure its implementation. Prior to the issuance of a building permit, the applicant will submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the site at the end of the project’s useful life. The Plan will contain an analysis of pre-project general pre-construction conditions of the project site, and the site will be photographically documented by the applicant prior to the start of construction. The Plan will contain specific measures to restore the soil to approximate its pre-project condition, including (1) removal of all above-ground and below-ground project fixtures, equipment, and non-agricultural driveways, (2) tilling to restore the sub-grade material to a density and depth consistent with its pre-project condition, (3) revegetation using a Kings County-approved grasses and forbs seed mixture designed to maximize revegetation with noninvasive species shall be

broadcast or drilled across the project site, and (4) application of weed-free mulch spread, as needed, to stabilize the soil until germination occurs and young plants are established to facilitate moisture retention in the soil. Whether the project area has been restored to pre-construction conditions shall be assessed by Kings County staff. Additional seedlings and applications of weed-free mulch shall be applied to areas of the project site that have been determined to be unsuccessfully reclaimed (i.e., restored to pre-project conditions) until the entire project area has been restored to conditions equivalent to pre-construction conditions. All waste would be recycled or disposed of in compliance with applicable law. The applicant will verify the completion of reclamation within 18 months after expiration of the project use permit with the Planning Division staff.

Prior to the issuance of a building permit, the applicant will post a performance or cash bond, submit a Certificate of Deposit, submit a letter of credit, or provide such other financial assurances acceptable to the County, in an amount provided in an Engineer's Cost Estimate, approved by the Kings County Community Development Agency, to ensure completion of the activities under the Soil Reclamation Plan. Every 5 years from the date of completion of construction of the project, the applicant will submit an updated Engineer's Cost Estimate for financial assurances for the Plan, which will be reviewed every 5 years by the Kings County Community Development Agency to determine if the amount of the assurances is sufficient to implement the Plan. The amount of the assurances must be adjusted if, during the five-year review, the amount is determined to be insufficient to implement the Plan.

Since the project site has no surface water rights *per se*, there are no surface water rights to be retained. (The project site is only eligible to receive imported SWP surface water supplies from the Dudley Ridge Water District in years when there is excess water that not needed elsewhere within District, which has not occurred since the 1980s)(DRWD 2020).

Based upon the facts presented above, the Utica Avenue Solar Project will comply with this provision of the Kings County Development Code.

- e. *The project shall include a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption.*

Discussion. The project would prepare and implement a Pest Management Plan and Weed Abatement Plan, as required under Section 112.B.2.e of the County Development Code. The Weed Abatement Plan would specify that native seed mixes used to revegetate the project site are free of weeds. The plan would also ensure that combustible vegetation on and near the project boundary would be actively managed during the construction and operational phases to minimize fire risk. Vegetation height would be kept low to the ground through sheep grazing and by mowing and trimming with mechanical equipment. The gravel driveways to be constructed around the project perimeter would provide fire breaks. Herbicides would be applied if warranted by site conditions as specified in the Weed Abatement Plan, but would be restricted to those considered environmentally safe. The Pest Management Plan would reduce the potential for pests to inhabit the project site. The Pest Management Plan would set action thresholds, identify pests, specify prevention methods as a first course of action, specify control methods as a second course of action, and establish a quantitative performance goal of nuisance reduction to adjacent farmland. Rodenticide would be selected and used in a manner that minimizes impacts to protected biological species. Since the project would implement

these measures under the Pest Management Plan and Weed Abatement Plan for the project, this standard would be met.

- f. *The project shall space internal access driveways per Kings County Fire Department standards.*

Discussion. The Fire Department’s “Photovoltaic Solar Panel – Additional Requirements” set forth the following standards for internal access driveways:

“Life safety and fire suppression access roads shall be not less than 20 feet in width around the perimeter of the site and shall include interior fire access roads of not less than 20 feet in width that are spaced so that there is not greater than 400 feet in separation between fire access roads on the interior of the site” (KCFD 2019).

As shown in Figure 3 – Site Plan, the project includes perimeter roads and parallel internal access lanes with a minimum width of 20 feet at intervals of less than 400 feet. Therefore, the project would conform to this standard.

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

Discussion. As required by Development Code Section 1112.B.2.g, solid waste management plan will be prepared for the project to prescribe internal procedures for site maintenance and collection and disposal of solid waste during project construction and operation. The non-hazardous waste generated during construction and operation would be segregated on-site for recycling or disposal at a Class III landfill. Hazardous wastes generated during project construction and operation would be either recycled or disposed of at a Class I disposal facility, as required. With the preparation and implementation of a solid waste management plan, as required, the Utica Avenue Solar Project would conform to this standard.

- h. *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 shall be proposed for cancellation.*

Discussion. The project site is currently under a Williamson Act contract; however, the applicant intends to file a petition for cancellation which the Board of Supervisors is expected to approve based on a finding that the cancellation is in the public interest. The approval of the subject CUP would be contingent upon approval of the cancellation of the Williamson Act contract on the project site. Upon cancellation of the Williamson Act contract, the project would conform to this standard of the Development Code.

In summary, the project is consistent with the zoning for the Utica Avenue Solar Project site, and would be consistent with all of the Development Code provisions for the granting of Conditional Use Permits for solar generating facilities. Therefore, the Utica Avenue Solar Project would result in *no impact* with respect to conflicts with the applicable zoning as set forth in the County Development Code.

- c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

No Impact. Neither the Utica Avenue Solar Project site nor other lands in the vicinity are zoned forest land, timberland, or Timberland Production under the cited statutes. No portion of the Utica Avenue Solar Project site is zoned for forestland or timberland, according to the Kings County Zoning Plan (Kings County 1964). As such, the Utica Avenue Solar Project would have *no impact* with respect to conflict with existing zoning for such land, or in terms of causing the rezoning of such lands.

- d) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. There is no forest land on the Utica Avenue Solar Project site or in the site vicinity. As such, the Utica Avenue Solar Project would have *no impact* in terms of loss or conversion of forest land.

- e) **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

Less-than-Significant Impact. The Utica Avenue Solar Project would not induce conversion of other farmlands to non-agricultural uses by way of providing excess infrastructure capacities that could facilitate development on adjacent or nearby lands, or by way of introducing a land use that is incompatible with agricultural production. The project would involve no other changes that could result in the conversion of farmland to non-agricultural use.

As noted in item ‘d’ above, there is no forest land in the project vicinity, so the project would not involve other changes that could result in the conversion of forest land to non-forest uses.

In summary, the Utica Avenue Solar Project would involve no other changes to the existing environment which could result in the conversion of Farmland or forest land, and therefore the project would have a *less-than-significant impact* in this regard.

REFERENCES – AGRICULTURE AND FORESTRY RESOURCES

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Kings County 1964	Kings County. 1964. <i>Zoning Plan – County of Kings California</i> . Adopted April 7, 1964. [Available for review at Kings County Community Development Agency.]
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NRCS 1986	U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 1986. <i>Soil Survey of Kings County California</i> . September. http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA031/0/kings.pdf

4.3. AIR QUALITY

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

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Conflict with or obstruct implementation of the applicable air quality plan?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>c) Expose sensitive receptors to substantial pollutant concentrations?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>d) Result in other emissions (such as those leading to odors) affecting a substantial number of people?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>

Introduction

This section is based on the air quality assessment report prepared by Illingworth & Rodkin (I&R) in March 2022. The I&R technical air quality report is contained in Appendix A of this document. (Please refer to the I&R report for detailed discussions of climate and air basin characteristics, existing air quality conditions, health effects of air pollutants, regulatory setting, regional attainment of air quality standards, air quality plans, and detailed technical analysis of air quality impacts.)

In preparing the air quality assessment for the Utica Avenue Solar Project, Illingworth & Rodkin followed the San Joaquin Valley Air Pollution Control District (SJVAPCD) guidance for air quality analysis contained in its Guide for Assessing and Mitigating Air Quality Impact (GAMAQI)(SJVAPCD 2015).

Air Quality Setting

The primary air pollutants that would be emitted by the Utica Avenue Solar Project include ozone (O₃) precursors (NO_x and ROG), carbon monoxide (CO), and suspended particulate matter (PM₁₀ and PM_{2.5}). Other regulated (or “criteria”) pollutants, such as lead (Pb) and sulfur dioxide (SO₂), would not be substantially emitted by the proposed project or project-generated traffic, and air quality standards for them are being met throughout the San Joaquin Valley Air Basin.

Existing Air Quality

The San Joaquin Valley experiences poor air quality conditions, due primarily to elevated levels of ozone and particulate matter.

Ozone (O₃)

While O₃ serves a beneficial purpose in the upper atmosphere by reducing ultraviolet radiation potentially harmful to humans, when it reaches elevated concentrations in the lower atmosphere, it can be harmful to the human respiratory system and to sensitive species of plants. (A detailed discussion of health effects of O₃ can be found in CARB 2022a.) O₃ is formed in the atmosphere by a complex series of photochemical reactions that involve “ozone precursors” that comprise two families of pollutants: oxides of nitrogen (NO_x) and reactive organic gases (ROG). NO_x and ROG are emitted from a variety of stationary and mobile sources, primarily vehicle exhaust.

Ozone concentrations in the San Joaquin Valley are typically higher than in coastal areas because of the greater frequency of hot days and stagnant conditions that are conducive to ozone formation. Ozone precursor pollutants are also carried to the valley from upwind urban areas.

Carbon Monoxide (CO)

Primary sources of CO in ambient air are exhaust emissions from on-road vehicles, such as passenger cars and light-duty trucks, and residential wood burning. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause dizziness and fatigue, and causes reduced lung capacity, impaired mental abilities and central nervous system function, and induces angina in persons with serious heart disease. (A detailed discussion of health effects of CO can be found in CARB 2022b.)

Nitrogen Dioxide (NO₂)

Nitrogen dioxide is a combustion by-product, but it can also form in the atmosphere by chemical reaction. Nitrogen dioxide is a reddish-brown colored gas often observed during the same conditions that produce high levels of O₃ and can affect regional visibility. The major health effect from exposure to high levels of NO₂ is the risk of acute and chronic respiratory disease. (A detailed discussion of health effects of NO₂ can be found in CARB 2022c.) Nitrogen dioxide is one compound in a group of compounds consisting of oxides of nitrogen (NO_x). As described above, NO_x is an O₃ precursor compound.

Particulate Matter (PM)

Regulated fractions of particulate matter include PM₁₀ which consists of particulate matter that is 10 microns or less in diameter, and PM_{2.5} which consists of particulates that are 2.5 microns or less in diameter. Both PM₁₀ and PM_{2.5} can be inhaled and cause adverse health effects. PM_{2.5} (including diesel exhaust particles) is thought to have greater effects on health because minute particles are able to penetrate to the deepest parts of the lungs. (A detailed discussion of health effects of PM₁₀ and PM_{2.5} can be found in CARB 2022d.)

Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as mining and demolition and construction activities, are more local in nature, while others, such as vehicular traffic, are more regional in their effect.

Toxic Air Contaminants

Besides the "criteria" air pollutants, there is another group of substances found in ambient air referred to as Toxic Air Contaminants (TACs). Particulate matter from diesel exhaust is the predominant TAC in urban air and is estimated to represent about 70 percent of the cancer risk from TACs. The vast majority of diesel exhaust particles (over 90 percent) consist of PM_{2.5}, which are the particles that can be inhaled deep into the lung. (A detailed discussion of health effects of diesel exhaust can be found in CARB 2022e.)

Regulatory Context

Federal and State

Air Quality Planning

At both the State and federal levels, air quality standards have been established for a range of air pollutants. These standards specify the concentrations of each criteria pollutant that the public may be exposed to without adverse health effects. Air quality monitoring data for each criteria air pollutant are used to determine if an air basin is in violation of an ambient air quality standard. Areas that do not violate federal and state ambient air quality standards are considered to have "attained" the standards. The San Joaquin Valley as a whole does not meet State or federal ambient air quality standards for ground level O₃ and the State standards for PM₁₀ and PM_{2.5}. Accordingly, under the Federal Clean Air Act, the US EPA has classified the region as *extreme nonattainment* for the 8-hour O₃ standard and *nonattainment* for the 24-hour PM_{2.5} standard. The US EPA classifies the region as *attainment* or *unclassified* for all other air pollutants, including carbon monoxide (CO) and nitrogen dioxide (NO₂). At the State level, the region is considered *severe non-attainment* for ground level O₃ and *non-attainment* for PM₁₀ and PM_{2.5}, and is considered *attainment* or *unclassified* for all other pollutants.

In response to not meeting the air quality standards for ozone and PM, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has prepared required attainment plans for each pollutant including the 2016 Ozone Plan and the 2012 PM_{2.5} Plan. The ozone plan was approved by the federal EPA in 2019, and the ozone plan was approved by CARB in 2019. Both the ozone and PM_{2.5} attainment plans include all measures (i.e., federal, state and local) that would be implemented through rule making or program funding to reduce air pollutant emissions.

San Joaquin Valley Air Pollution Control District

SJVAPCD Rules and Regulations

In order to reduce emissions of ozone precursors (i.e., ROG and NO_x) and PM₁₀ from new land use development projects, and achieve the attainment plans for each pollutant, the SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) in 2005. The rule requires projects to reduce both construction and operational period emissions by specified amounts by applying the SJVAPCD-approved mitigation measures and/or paying fees to support off-site mitigation programs that reduce emissions. Fees apply to the unmitigated portion of the emissions and are based on estimated costs to reduce the emissions from other sources plus expected costs to cover administration of the program. Off-site

emission reduction projects to be funded through ISR include retrofitting heavy-duty engines, replacing agricultural machinery and pumps, paving unpaved roads and road shoulders, trading out combustion-powered lawn and agricultural equipment with electrical and other equipment, as well as a number of other projects that result in quantifiable emissions reductions of PM₁₀ and NO_x. In accordance with ISR, the project applicant will submit an application for approval of an Air Impact Assessment (AIA) to the SJVAPCD.

SJVAPCD controls PM₁₀ from fugitive dust through several rules collectively known as Regulation VIII (Fugitive PM₁₀ Prohibitions). The purpose of these rules is to reduce ambient concentrations of PM₁₀ by requiring actions to prevent, reduce or mitigate anthropogenic (human caused) fugitive dust emissions. This applies to activities such as construction, bulk materials handling, and material transport on paved and unpaved roads, and agricultural activities. Development projects are required to provide dust control plans that meet the regulation requirements. The Air District's required dust control measures are summarized in item 'b' below. Other Air District rules that apply to construction activities include: Rule 4101 which prohibits visible emissions; Rule 4102, regarding creation of a nuisance; Rule 4601 which limits volatile organic compound emissions from architectural coatings, storage and cleanup; and Rule 4641 which limits emissions from asphalt paving materials.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives and policies related to air quality that are relevant to the Utica Avenue Solar Project:

Air Quality Element

C. Air Quality Management

AQ GOAL C1 Use Air Quality Assessment and Mitigation programs and resources of the SJVAPCD and other agencies to minimize air pollution, related public health effects, and potential climate change impacts within the County.

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 C1.1.2: Assess and mitigate project greenhouse gas/climate change impacts using analysis methods and significance thresholds as defined or recommended by the SJVAPCD, KCAG or California Air Resources Board (ARB) depending on the type of project involved.

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 Policy C1.1.5: Assess and reduce the air quality and potential climate change impacts of new development projects that may be insignificant by themselves but, taken together, may be cumulatively significant for the County as a whole.

F. Hazardous Emissions and Public Health

AQ GOAL F1 Minimize exposure of the public to hazardous air pollutant emissions, particulates and noxious odors from freeways, major arterial roadways, industrial, manufacturing, and processing facilities.

AQ OBJECTIVE F2.1 Reduce emissions of PM₁₀, PM_{2.5} and other particulates from sources with local control potential or under the jurisdiction of the County.

AQ Policy F2.1.2: Require all access roads, driveways, and parking areas serving new commercial and industrial development are constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.

Environmental Evaluation

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The Air District’s guidance document (GAMAQI) does not include methodologies for assessing the effect of a project on consistency with clean air plans developed by the SJVAPCD. Regional clean air plans developed by SJVAPCD rely on local land use designations to develop population and travel projections that are the basis of future emissions inventories. Air pollution control plans are aimed at reducing these projected future emissions. The project land uses would not alter population and vehicle related emissions projections contained in regional clean air planning efforts in any measurable way, and would not conflict with achievement of the control plans aimed at reducing these projected emissions. Therefore, the project would not conflict with or obstruct implementation of efforts outlined in the region’s air pollution control plans to attain or maintain ambient air quality standards. This would be a *less-than-significant* impact.

As discussed above, in 2005 the SJVAPCD adopted the Indirect Source Review (ISR) Rule in order to fulfill the District’s emission reduction commitments in its PM₁₀ and Ozone attainment plans. The District has determined that implementation and compliance with the ISR would reduce the cumulative PM₁₀ and NO_x impacts of growth anticipated in the air quality plans to a less-than-significant level. As discussed under item ‘b’ below, the project proponent will be required to file an application for ISR Review to confirm that the project will meet its emissions reduction requirements. The final emissions calculations for the project will be performed in an Air Impact Assessment (AIA), as required under ISR to determine the specific ISR reductions (i.e., in tons) that are to be achieved through on-site and/or off-site measures. Upon implementation of the project’s ISR emission reduction measures, as applicable, the project would fulfill its share of achieving the District’s emission reduction commitments in the PM₁₀ and Ozone attainment plans. Therefore, the

Utica Avenue Solar Project would result in a *less-than-significant impact* since it would not conflict with or obstruct implementation of the applicable air quality plans.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-Significant Impact. The SJVAPCD has developed criteria to determine if a development project could result in potentially significant regional emissions. According to Section 7.14 of the GAMAQI (“Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant?”), any proposed project that would individually have a significant air quality impact (i.e., exceed significance thresholds for ROG or NO_x) would also be considered to have a significant cumulative air quality impact. The GAMAQI further states that “a Lead Agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located” (SJVAPCD 2015, p. 66). For local impacts of PM₁₀ from unrelated construction projects, the GAMAQI recommends a qualitative approach where construction activities from unrelated projects in the area should be examined to determine if enhanced dust suppression measures are necessary.

Project-Specific Emissions

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to the project operation. During construction, the project would affect local particulate concentrations primarily due to fugitive dust sources and would contribute to ozone and PM₁₀/PM_{2.5} levels from exhaust emissions. Over the long-term, the project would result in an increase in emissions of ozone precursors such as ROG and NO_x, primarily due to increased motor vehicle trips (employee trips, site deliveries, and on-site maintenance activities). The construction and operational emissions associated with the Utica Avenue Solar Project are discussed below.

Construction Dust

Construction activities would generate particulate dust and other pollutants, which would temporarily affect local air quality in the surrounding area. Grading and site disturbance (e.g., vehicle travel on exposed areas) would likely result in the greatest emissions of dust and PM₁₀/PM_{2.5}. Windy conditions during construction could cause substantial emissions of PM₁₀/PM_{2.5}.

There is one residential receiver in the general vicinity of the Utica Avenue Solar Project site. This residence is a single rural dwelling located on the north side of Utica Avenue approximately 0.5 mile northwest of the project site. There are no other residences or other sensitive receivers within 5.0 miles of the project site.

To control dust emissions, the District emphasizes implementation of effective and comprehensive control measures. Regulation VIII essentially prohibits the emissions of visible dust (limited to 20-percent opacity) and requires that disturbed areas or soils be stabilized. Prior to construction, the applicant would be required to submit a Dust Control Plan that meets the regulation requirements. As specified in District Rule 8021, these plans are subject to the review and approval by SJVAPCD before any ground disturbing activity can begin.

The provisions of Regulation VIII and its constituent rules pertaining to construction activities generally require:

- Effective dust suppression (e.g., watering) for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the workday or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.
- Cease outdoor construction activities that disturb soils during periods with high winds.
- Record keeping for each day dust control measures are implemented.
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Landscape or replant vegetation in disturbed areas as quickly as possible.
- Prevent the tracking of dirt on public roadways. Limit access to the construction sites, so tracking of mud or dirt on to public roadways can be prevented. If necessary, use wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Suspend grading activity when winds (instantaneous gusts) exceed 25 mph or dust clouds cannot be prevented from extending beyond the site.

Anyone who prepares or implements a Dust Control Plan must attend a training course conducted by the Air District. Construction sites are subject to SJVAPCD inspections under this regulation. Compliance with Regulation VIII, including the effective implementation of a Dust Control Plan that has been reviewed and approved by the SJVAPCD, would reduce dust and PM₁₀ emissions to a *less-than-significant* level.

Construction Exhaust Emissions

Equipment and vehicle trips associated with construction would emit ozone precursor air pollutants on a temporary basis. Construction equipment would also emit diesel particulate matter (DPM), which is a Toxic Air Contaminant (TAC), which can adversely affect local air quality. (See item 'c' below for a discussion of potential TAC impacts.)

Emissions of air pollutants that could affect regional air quality were addressed by modeling emissions and comparing them to the SJVAPCD significance thresholds. Construction period air pollutant emissions occurring within the air basin were modeled using the CalEEMod model. Estimated emissions from construction are shown in Table AQ-1 on the following page.

Construction build-out scenarios were developed based on the construction schedules, and anticipated construction vehicle and equipment use. The emissions computed using CalEEMod for this assessment address use of construction equipment, worker vehicle travel, on-site vehicle and truck use, and off-site truck travel by vendors or equipment/material deliveries. Both criteria air pollutant exhaust and fugitive dust (i.e., PM₁₀ and PM_{2.5}) were computed by CalEEMod. (Note that the uncontrolled CalEEMod modeling does not include the effects of SJVAPCD Regulation VIII that would substantially reduce fugitive PM₁₀ and PM_{2.5} emissions.) The air quality calculations are included as attachments to the Air Quality Assessment, which is contained in Appendix A of this document. Attachment 1 includes the construction assumptions that were used to model emissions. Attachment 2 includes the CalEEMod modeling outputs for both uncontrolled and controlled emissions.

Unmitigated and uncontrolled construction emissions from the project are shown in Table AQ-1. As shown, uncontrolled construction emissions would not exceed the applicable Air District thresholds for PM₁₀ (exhaust plus fugitive) in 2022. However, these emissions are subject to Air District rules and regulations which would result in controlled emissions from construction that would be lower than the uncontrolled emissions, as shown in Table AQ-1.

TABLE AQ-1
PROJECT CONSTRUCTION EMISSIONS IN TONS PER YEAR (TPY)

Construction Year	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
2022 Uncontrolled	0.08	0.58	0.72	2.57	0.29
2022 Controlled*	0.08	0.58	--	1.62	0.19
Significance Thresholds	10	10	100	15	15
Uncontrolled emissions exceed threshold?	No	No	No	No	No

* Values reported for “Controlled” PM₁₀ and PM_{2.5} include the application of controls on fugitive dust in the form of watering and on-site vehicle speed limits. The estimates of fugitive dust emissions do not include the effect of measures implemented under Regulation VIII.

Source: Illingworth & Rodkin, 2022

Table AQ-1 does not report annual construction period emissions with application of District Rule 9510 (ISR) or Regulation VIII controls. Controlled construction emissions are below the Partial Exemption limits of ISR (i.e., development projects that have a mitigated baseline below 2.0 tons per year of NO_x and 2.0 tpy of PM₁₀ are exempt from all emission reduction requirements of the ISR Rule). Therefore, requirements of ISR to further reduce NO_x and PM₁₀ emissions are not anticipated. However, Regulation VIII measures that reduce fugitive dust would apply to construction activities, as discussed above.

Construction period emissions of ROG, NO_x, CO, and PM₁₀ would be below the thresholds used by SJVAPCD to determine the significance of construction air quality impacts under CEQA. Thus, while the residual construction-related emissions of ozone precursors and particulates (i.e., emissions below the CEQA thresholds) may result in a small decrease in overall air quality, and may therefore have a small adverse health affect (as described earlier in this section under “Air Quality Setting”), the overall health impact would not be significant.

Project Operation

The operation of the Utica Avenue Solar Project would result in emissions of regional air pollutants, primarily from project-generated traffic and maintenance equipment. The CalEEMod model was also used to predict annual emissions from operation of the Utica Avenue Solar Project. Since 2023 is the first full year that the Utica Avenue Solar Project would be fully operational, that year was used as the analysis year. Maintenance vehicle and some off-road equipment usage would occur on-site, as well as workers traveling and occasional equipment or vendor deliveries would result in some emissions. The annual emissions from project operation are shown in Table AQ-2.

**TABLE AQ-2
 ANNUAL PROJECT OPERATIONAL EMISSIONS IN TONS PER YEAR (TPY)**

Phase	ROG	NO _x	CO	PM ₁₀ ¹	PM _{2.5} ¹
Project Operations	<0.01	0.01	0.04	0.01	<0.01
Significance Threshold	10	10	100 ²	15	15
Exceeds Threshold?	No	No	No	No	No

¹ Includes both exhaust and fugitive dust emissions.

² Significant if emissions exceed 100 tons per year and then contribute to violation of the NAAQS/CAAQS.

Source: Illingworth & Rodkin, 2022

As shown in Table AQ-2, the annual emissions from the project operation would not exceed the applicable Air District thresholds for ROG, NO_x, PM₁₀, or PM_{2.5}. Therefore, the air quality impact of project operation, in terms of regional pollutants, would be *less than significant* under CEQA.

Stationary combustion equipment that could emit air pollution during facility operation is not proposed for the project. Photovoltaic energy projects, such as this one, do not usually include these pollutant sources. If stationary sources are included in the project at a later date, they may require permits from SJVAPCD. Such sources could include combustion emissions from standby emergency generators (rated 50 horsepower or greater). These sources would normally result in minor emissions, compared to those from traffic generation and off-road maintenance equipment reported above. Sources of stationary air pollutant emissions complying with all applicable SJVAPCD regulations generally will not be considered to have a significant air quality impact. Stationary sources that are exempt from SJVAPCD permit requirements due to low emission rates would not be considered to have a significant air quality impact.

As previously mentioned, the project is subject to SJVAPCD’s ISR Rule 9510 to reduce NO_x and PM₁₀ emissions. Operational emissions are well below the Partial Exemption limits of ISR (i.e., development projects that have a mitigated baseline below 2.0 tons per year of NO_x and 2.0 tpy of PM₁₀ are exempt from all emission reduction requirements of the ISR Rule). Therefore, requirements of ISR to further reduce NO_x and PM₁₀ emissions are not anticipated. As such, Table AQ-2 does not include any reductions under ISR.

In summary, the operational emissions of ROG, NO_x, PM₁₀ and PM_{2.5} would be below the significance thresholds applied by SJVAPCD to determine the significance of operational air quality impacts under CEQA. Thus the project's air quality impact from operational emissions would be *less than significant*.

Project Decommissioning

The Utica Avenue Solar Facility would be decommissioned at the end of its productive life after 20 years of operation. The activities associated with deconstruction would be comparable to construction, but emissions are expected to be substantially lower given anticipated reductions in vehicle and equipment emissions that will be phased-in over time per State and federal regulations, and also because of the generally lower intensity of equipment use associated with decommissioning. Thus emissions during decommissioning are not expected to exceed SJVAPCD significance thresholds for any criteria pollutants. Fugitive PM₁₀ emissions are likewise expected to be below the applicable significance thresholds, although the Regulation VIII dust control requirements would still apply, as they would for construction. Therefore, the emissions associated with project decommissioning would be *less than significant*.

Cumulative Emissions

Regional Air Pollutant Emissions

As discussed, cumulative ozone impacts would be considered significant if the project-specific emissions exceed the SJVAPCD significance thresholds for ozone precursors ROG or NO_x, or the project is not consistent with the regional clean air plan. As discussed in item 'b' (and shown in Table AQ-1) above, project-specific construction emissions of ozone precursor pollutants (ROG and NO_x) and PM were found to be less-than-significant without mitigation. The project would be responsible for fulfilling its share of achieving the Air District's emission reduction commitments in the PM₁₀ and Ozone attainment plans through its obligation to implement ISR emission reduction measures under Air District Rule 9510, as applicable. Therefore, the project would fully comply with the applicable air quality plans and would not conflict with or obstruct their implementation. Therefore, the project contribution to cumulative regional air quality impacts would be *less than significant*.

Local Air Pollutant Emissions

Construction period PM₁₀ emissions would be localized. With implementation of SJVAPCD Regulation VIII, construction period impacts would be less than significant. Additional construction that may occur in the area concurrently with the project would be subject to SJVAPCD Regulation VIII, as well as the District's Indirect Source Review Rule 9510, which would reduce cumulative construction emissions to less-than-significant levels. In summary, the cumulative project impacts to localized air quality impacts from criteria pollutants for which the region is in non-attainment would be *less-than-significant*.

Cumulative Toxic Air Pollutant Impacts

As discussed above, the project would not have a significant impact related to community health risk from project construction or operation. The project would also not contribute to a cumulatively considerable community risk impact in the project vicinity.

Summary

Based on the above analysis, the Utica Avenue Solar Project would not result in a cumulatively considerable net increase in air emissions and therefore the impact would be *less than significant*.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-than-Significant Impact. Land uses that are considered sensitive to localized increases in emissions of air pollutants include hospitals, care facilities, schools, parks, and residential areas. The nearest sensitive receptor to the Utica Avenue Solar Project site is a rural residence located approximately 2,700 feet northwest of the project site at its nearest point.

The two main types of pollutants that can occur in high localized concentrations are carbon monoxide from vehicular emissions and Toxic Air Contaminants (TACs) from diesel exhaust. Other pollutants, such as lead (Pb) and sulfur dioxide (SO₂) would not be substantially emitted by the project, and air quality standards for them are being met throughout the San Joaquin Valley Air Basin. The potential for the project to result in substantial concentrations of CO or TACs is discussed below.

Carbon Monoxide

Project traffic would slightly increase concentrations of carbon monoxide along roadways providing access to the project. Since the major source of carbon monoxide (CO) is automobile traffic, elevated concentrations of CO occur near areas of high traffic volume and congestion. Emissions and ambient concentrations of CO have decreased greatly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and reformulated motor vehicle fuels. No exceedances of the State or federal CO standards have been recorded at any of San Joaquin Valley's monitoring stations in the past 15 years. The San Joaquin Valley Air Basin has attained the State and National CO standards.

In order to determine where a project has the potential to result in a violation of a CO standard, the SJVAPCD applies the following screening criteria: 1) the level of service (LOS) on one or more streets or intersections would be reduced to LOS E or F by the project; and 2) the project would substantially worsen the LOS at a street or intersection in the vicinity operating at LOS F under pre-project conditions. As discussed in section 4.17. *Transportation*, all roadway segments that would be affected by project traffic would operate at LOS C or better during the peak of construction activity when the greatest traffic volumes would be generated by the project. Since neither of the SJVAPCD screening criteria would thus be met, the Utica Avenue Solar Project would not result in a violation of the CO standard and therefore would result in a *less-than-significant impact* in terms of exposing sensitive receptors to substantial concentrations of carbon monoxide.

Toxic Air Contaminants

The Toxic Air Contaminant (TAC) that is relevant to the Utica Avenue Solar Project is Diesel Particulate Matter (DPM), which would be emitted by diesel-fueled equipment and vehicles during construction, and by diesel-fueled vehicles used during project operations including delivery trucks, maintenance vehicles, and some worker vehicles.

The highest daily levels of DPM would be emitted during construction activities from use of heavy-duty diesel equipment such as bulldozers, excavators, loaders, graders and diesel-fueled haul trucks. However, these emissions would be intermittent, and would vary throughout the project site area, and would be of a temporary duration (approximately 3 months of total construction activity). During project operations, low-level DPM emissions would result from worker vehicles and maintenance activities, but they would be constant over the lifetime of the project. Operational DPM emissions would mainly result from the use of pickup trucks with portable water trailers (and pumps) which would be used for panel cleaning.

Levels of DPM emissions can be generally inferred from PM₁₀ emissions, of which diesel exhaust constitutes a substantial component. Table AQ-1 above shows that PM₁₀ emissions from solar project construction would be well below the applicable significance threshold with implementation of required mitigation. Table AQ-2 above shows that PM₁₀ emissions from operational activities would also be well below the significance threshold.

Because of the relatively small levels of DPM emissions during project construction and operation, and due to the substantial distances to the nearest sensitive receptors (e.g., the nearest residence is approximately 2,700 feet from the nearest project boundary), DPM emissions from project construction would disperse to negligible levels at the nearest receptor location. Thus the health impacts associated with exposure to DPM from project construction and operation are not anticipated to be significant. Therefore, the Utica Avenue Solar Project would result in a *less-than-significant impact* in terms of exposing sensitive receptors to substantial concentrations of Toxic Air Contaminants.

Cumulative Toxic Air Pollutant Impacts

With respect to cumulative emissions of Toxic Air Contaminants (TACs), it is important to note that Diesel Particulate Matter (DPM) concentrations diminish rapidly from the source. Pollutant dispersion studies by the California Air Resources Board (CARB) have shown that there is about an 80 percent drop-off in DPM concentrations at approximately 1,000 feet from the source (CARB 2005, p. 14). As discussed in Section 4.3. *Air Quality*, the construction and operation of the Utica Avenue Solar Project would result in relatively low levels of DPM emissions. Due to the substantial distance to the nearest sensitive receptor (e.g., the nearest residence is at least 0.5 mile from the nearest project boundary), DPM emissions from project construction would disperse to negligible levels at the nearest receptor location. The DPM emissions from the Jackson Ranch, located 2.5 miles west of the noise-sensitive rural dwelling, would similarly disperse to negligible levels at this receptor location. Thus the health impacts associated with exposure to DPM from construction and operation from the combination of the Utica Avenue Solar Project and the Jackson Ranch project are not anticipated to be significant. Since there are no other cumulative projects within several miles, it is not expected the cumulative TAC emissions from all of the known and foreseeable projects in the vicinity would result in a significant increase in cancer risk at the nearest sensitive receptor subject to cumulative emissions from these other projects and the Utica Avenue Solar Project. Therefore, the cumulative health risk impact associated with the Utica Avenue Solar Project would be *less than significant*, and the project contribution to the cumulative health risk impact would *not be considerable*.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-Significant Impact. During construction, the various diesel powered vehicles and equipment in use on the Utica Avenue Solar Project site would create localized odors. These odors would be temporary and would dissipate relatively quickly and thus would not likely be noticeable for extended periods of time beyond the project boundaries. Most if not all diesel odors carried off-site would disperse into the atmosphere before reaching the nearest sensitive receptor located at least 0.5 mile away. There are no other emissions sources associated with the Utica Avenue Solar Project. Other than emissions discussed under previous items in this section, the Utica Avenue Solar Project would not result in other emissions, including emissions leading to odors, adversely affecting a substantial number of people; therefore, the impact would be *less than significant*.

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4.4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>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?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) <i>Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) <i>Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) <i>Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section summarizes the analysis and conclusions of the biological assessment report prepared by Live Oak Associates (LOA) in March 2022. The LOA report is contained in Appendix B of this document.

Biological Setting

Biotic Habitats/Land Uses

The 29.5-acre Utica Avenue Solar project site consists of ruderal (weedy) agricultural lands and includes a short segment of a dry former irrigation canal which crosses the northwest corner of the site. A 12-kV electrical distribution line runs along the northern site boundary. There are no buildings, sheds, wells, or other structures on the Utica Avenue Solar Project site.

Ruderal Field

Habitat on the site consists of a ruderal agricultural field, previously grazed by sheep, and the soils of the site appear to have been managed in the past, possibly through discing.

Plants observed onsite by LOA were notably dominated by stork's bill; other major species included unidentified annual grass seedlings, sunflower, and Russian thistle.

Animal species observed during LOA's field survey include the red-tailed hawk, American kestrel, mourning dove, American crow, common raven, mountain bluebird, horned lark, western meadowlark, and white-crowned sparrow. Most of these bird species were observed flying over the site. Additional animal sign that was observed included small mammal burrows; burrows and scat were consistent with Heerman's kangaroo rat, and burrows, scat, and tracks of coyote. There was no evidence of burrowing owls on the site, and the nearest potential nesting habitat for tree-nesting raptors are the power lines along Utica Avenue or the line of trees approximately 1,000 feet north of Utica Avenue.

On-Site/Off-Site Canal

An inactive irrigation canal runs through the northwest corner of the Project Site along the south side of Utica Avenue. This canal has been prevented from receiving upstream flow by a large earthen berm which blocks water from coming into the canal just off-site to the west, and upstream, of the site. This canal serves to collect incidental stormwater during portions of the year. During LOA's January 2022 site visit, the canal contained shallow water from the heavy rains of December 2021. A significant amount of Russian thistle skeletons were observed along the banks of the canal, along with additional Russian thistle skeletons which likely rolled into the canal following detachment from the soil elsewhere, collected within the canal channel. A few small tamarisks were noted but a riparian tree canopy was absent. Some unidentified grasses were also noted in and along the canal channel.

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. 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. (See LOA's biological report in Appendix B for a full description of applicable laws and regulations.) 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. Collectively, these plants and animals are referred to as "special-status species."

A number of special-status species occur in the project vicinity. The LOA biological report lists a total of 4 plant species and 33 animal species with potential to occur in the project area. All four of the listed plant species (San Joaquin woollythreads, Lost Hills crowscale, recurved larkspur, and Kings gold) are considered to be absent from the project site or are unlikely to occur on the site. Twenty-one animal species are either absent or are considered unlikely to occur on the Utica Avenue Solar Project site. These include: vernal pool fairy shrimp, valley elderberry longhorn beetle, Monarch butterfly, Delta smelt, California tiger salamander, California red-legged frog, giant garter snake, blunt-nosed leopard lizard, western spadefoot, San Joaquin whipsnake, western yellow-billed cuckoo, tricolored blackbird,

black tern, fulvous whistling duck, olive-sided flycatcher, Tulare grasshopper mouse, short-nosed kangaroo rat, Nelson’s antelope squirrel, giant kangaroo rat, Tipton kangaroo rat, and ringtail.

An additional 12 animal species may regularly or occasionally utilize the Utica Avenue Solar Project site for foraging, including: Swainson’s hawk, golden eagle, western snowy plover, northern harrier, white-tailed kite, mountain plover, burrowing owl, Townsend’s big-eared bat, pallid bat, California mastiff bat, San Joaquin kit fox, and American badger.

The three bat species listed above, including the Townsend’s big-eared bat, pallid bat, and California mastiff bat may forage over the site; however, roosting habitat is absent from the Utica Avenue Solar site for these species.

TABLE BIO-1
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS			
<i>Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts</i>			
Common and scientific names	Status	General habitat description	*Occurrence in the Project Site
San Joaquin woollythreads <i>(Monolopia congdonii)</i>	FE CRPR 1B.2	<u>Habitat</u> : Chenopod scrub, valley and foothill grassland. <u>Elevation</u> : 60-800 meters. <u>Blooms</u> : February-May.	Unlikely. All known occurrences in the vicinity of the site are in the Kettleman Hills to the west of the site and also to the west of I-5. Additionally, this species was not observed during the January 2022 survey, and even though the blooming season is February-May, this species would likely have been able to be observed in January.
Lost Hills crownscale (AKA Lost Hills Saltbush) <i>(Atriplex coronate var. vallicola)</i>	CNPS 1B.2	<u>Habitat</u> : Chenopod scrub, valley grassland, and vernal pool habitats. <u>Elevation</u> : 50-635 meters. <u>Blooms</u> : April-September.	Absent. This species typically occurs in wetlands such as vernal pools, which were lacking from the site. Chenopod scrub and intact valley grassland habitat was also absent from the site. The soils of the site had been historically managed, and this species is not known to have occurred within three miles of the site.
Recurved larkspur <i>(Delphinium recurvatum)</i>	CNPS 1B	<u>Habitats</u> : Occurs on alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland. <u>Elevation</u> : 3-750 meters. <u>Blooms</u> : Perennial herb; March-June.	Absent. Habitat for this species is generally lacking. Soils of the site have been historically managed, and this species is not known to occur within eight miles of the site.
Kings gold <i>(Tropidocarpum californicum)</i>	CRPR 1B	<u>Habitats</u> : Chenopod scrub. <u>Elevation</u> : 65-180 meters. <u>Blooms</u> : Annual herb; February-March.	Absent. Chenopod scrub is absent from the site. Additionally, this species has not been documented within three miles of the site.

TABLE BIO-1 (CONT'D)
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS			
<i>Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts</i>			
Common and scientific names	Status	General habitat description	* Occurrence in the Project Site
Vernal pool fairy shrimp <i>(Branchinecta lynchi)</i>	FT	Occurs in vernal pools of California.	Absent. Suitable habitat in the form of vernal pools is absent from the Utica Avenue Solar site.
Valley elderberry longhorn beetle <i>(Desmocerus californicus dimorphus)</i>	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra Foothills.	Absent. Suitable habitat in the form of elderberry shrubs is absent from the Utica Avenue Solar site.
Monarch butterfly <i>(Danaus plexippus)</i>	CCT	Overwinter on the California coast in conifers such as Monterey pine trees or eucalyptus trees. Host plant is the milkweed.	Unlikely. Although the Monarch butterfly may fly through the site and even use milkweed should it occur on the project site, this is too far inland and does not support overwintering habitat for this species.
Delta smelt <i>(Hypomesus transpacificus)</i>	FT, CT	Euryhaline species found in open waters of bays, tidal rivers, channels, and sloughs occurring in waters with salinity generally less than 10 ppt, and more usually around 2ppt. Spawning occurs in freshwater further upstream. The majority occurs in Sacramento and Solano Counties in California; however, USFWS also indicates occurrences in other counties as well.	Absent. The site is well outside the Delta smelt's range. The closest potential feature is a canal south of Utica Avenue. This canal does not support flowing water as flows have been blocked upstream of the project site.
California tiger salamander <i>(Ambystoma californiense)</i>	FT, CT	Breeds in vernal pools and stock ponds of central California; adults aestivate in grassland habitats adjacent to the breeding sites.	Absent. No historic or current records of this species are known within the region. Intensively cultivated lands provide unsuitable habitat for this species. The nearest recorded observation of CTS is more than three miles from the project site.
California red-legged frog <i>(Rana draytonii)</i>	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than 4.5‰.	Absent. There is no suitable habitat for this species onsite or in the vicinity of the site. The closest potential feature is a canal south of Utica Avenue. This canal does not support flowing water as flows have been blocked upstream of the site. This species is not known from the valley floor since before 1960.

TABLE BIO-1 (CONT'D)
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS			
<i>Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts</i>			
Common and scientific names	Status	General habitat description	* 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.	Unlikely. Marginal breeding and overwintering habitat is available along the irrigation canals at the Utica Avenue Solar site. However, the nearest recorded observation is more than 3 miles from the site (CNDDB 2020).
Blunt-nosed leopard lizard <i>(Gambelia sila)</i>	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley from Merced south to Kern County.	Absent. Habitats required by this species are absent from the Utica Avenue Solar site and vicinity.
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.	Possible. Foraging habitat is available throughout the project area. Nesting habitat, however, is absent from the site. Trees of poor suitability to support a SWHA nest exist north of the site. Although the CNDDB (CDFW 2022) does not have any records for SWHA within 10 miles of the project site, a study by Hanson in 1998 did report a juvenile at a nest in a eucalyptus tree more than a mile north of the site.
Western yellow-billed cuckoo <i>(Coccyzus americanus occidentalis)</i>	FC, CE	Breeds in large blocks of riparian habitats, particularly cottonwoods and willows.	Absent. Dense riparian habitat required by this species is absent from the Utica Avenue Solar site.
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 bars.	Possible. Breeding and foraging habitat is available on and adjacent to the site. Additionally, the nearest recorded record of the western snowy plover is less than a half-mile from the site (CDFW 2022).
Tricolored Blackbird <i>(Agelaius tricolor)</i>	CC, CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Unlikely. Foraging habitat for this species is poor on the Project Site, although this species is known to migrate through the region.

TABLE BIO-1 (CONT'D)
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS			
<i>Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts</i>			
Common and scientific names	Status	General habitat description	* Occurrence in the Project Site
Nelson’s antelope squirrel <i>(Ammospermophilus nelsoni)</i>	CT	Frequents open shrublands and annual grassland habitats.	Absent. Habitats required by this species are absent from the Project Site and surrounding agricultural lands due to intensive agricultural use. The nearest recorded observation is from 1951 and is approximately 3 miles to the north of the site (CDFW 2022).
Giant kangaroo rat <i>(Dipodomys ingens)</i>	FE, CE	Inhabits grasslands on gentle slopes generally less than 10°, with friable, sandy-loam soils.	Absent. The nearest known habitat for the giant kangaroo rat is the Kettleman Hills Population Unit, more than four miles to the west of the Project Site; the Species Status Assessment Report for the Giant Kangaroo Rat (USFWS 2020) assigns a “Low” current condition rating to this Population Unit. Therefore, as the surrounding lands have been highly modified by agricultural use, GKR are not expected to occur on the site.
Tipton kangaroo rat <i>(Dipodomys nitratoides nitratoides)</i>	FE, CE	Inhabits arid land with grassland or salt scrub on level or near-level terrain on the San Joaquin Valley floor with alluvial fan and floodplain soils.	Absent. The site is within the historic distribution of TKR with the current distribution being more than 15 miles to the east of the site. The suitable alkali sink scrub habitat required for this species is not present on or near the site. This species’ distribution occurs mainly on the southern end of the San Joaquin Valley with the project site being near the northernmost edge of this species’ range.
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.	Possible. The site is within the High occurrence category and is approximately four miles from a satellite Recovery Area according to the Species Status Assessment Report for the San Joaquin Kit Fox (USFWS 2020). Therefore, the site has some potential to support SJKF, especially dispersing individuals, as the surrounding lands have been highly modified for agricultural use and, as a result, provide only marginal foraging and breeding habitat for the kit fox. There are no documented sightings of this species on the Project Site, however, there have been 24 documented sightings within a ten-mile radius of the Project Site between 1971 and 2001 (CNDDDB 2022). Therefore, kit foxes may occasionally forage within the Project Site, and may use the Project Site for dispersal movements.

TABLE BIO-1 (CONT'D)
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS			
<i>State Species of Special Concern (adapted from CDFW 2022 and USFWS 2022)</i>			
Common and scientific names	Status	General habitat description	* Occurrence in the Project Site
Western spadefoot (<i>Scaphiopus 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 for breeding are absent from the Utica Avenue Solar site.
San Joaquin whipsnake (AKA San Joaquin coachwhip) (<i>Masticophis flagellum ruddocki</i>)	CSC	Open, dry habitats with little or no tree cover. Found in valley grasslands and saltbush scrub in the San Joaquin Valley.	Unlikely. Habitats required by this species are marginal on the Project Site and the surrounding lands have been influenced by agriculture.
Black tern (<i>Chlidonias niger</i>)	CSC	Nests in freshwater marshes and rice fields.	Absent. The Project Site is not within the current range of the black tern; therefore, it is not expected to occur onsite, but maybe expected to migrate through the region. In addition, potentially suitable nesting habitat for this species is not present on the site.
Fulvous whistling-duck (<i>Dendrocygna bicolor</i>)	CSC	Occurs in California as a summer migrant which occurs in freshwater and coastal marshes, including rice fields.	Absent. The site is located just out of this species' range classified as "irregular use"; additionally, potentially suitable habitat for this species is absent from the site. Therefore, while it may be expected to fly over the site from time to time during migration, it is not expected to remain on the site for any great length of time.
Golden Eagle (<i>Aquila chrysaetos</i>)	CP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Possible. Suitable foraging habitat exists onsite; however, breeding habitat is absent from the site.
Northern harrier (<i>Circus cyaneus</i>)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Possible. Foraging habitat exists on the Project Site; however, breeding habitat is absent.
White-tailed kite (<i>Elanus leucurus</i>)	CP	Open grasslands and agricultural areas throughout central California.	Possible. Suitable foraging habitat occurs for this species within the Project site; however, breeding habitat is absent.
Mountain plover (<i>Charadrius montanus</i>)	CSC	Forages in short grasslands and freshly plowed fields of the Central Valley.	Possible. The Project site provides potential winter foraging habitat for this species; however, the species does not breed in this region.
Burrowing owl (<i>Athene cucularia</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.	Possible. Although burrowing owls and their sign were not observed during the 2022 site assessment, potentially suitable habitat for this species is present on the site; therefore, burrowing owls may move onto the site in the future. Additionally, the CNDDDB (CDFW 2022) identified a record of burrowing owl approximately 2 miles from the site.

TABLE BIO-1 (CONT'D)
SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS			
<i>State Species of Special Concern (adapted from CDFW 2022 and USFWS 2022)</i>			
Common and scientific names	Status	General habitat description	* Occurrence in the Project Site
Olive-sided flycatcher <i>(Contopus cooperi)</i>	CSC	Breeds in late-successional conifer forests with open canopies.	Absent. The Project Site is not within the current range of the olive-sided flycatcher; therefore, it is not expected to occur onsite, but maybe expected to migrate through the region. In addition, potentially suitable nesting habitat for this species is not present on the site.
Tulare grasshopper mouse <i>(Onychomys torridus tularensis)</i>	CSC	Arid shrubland communities in hot, arid grassland and scrub desert associations. These include blue oak woodlands at 450 m (1476 feet); upper sonoran subshrub scrub community; alkali sink and mesquite associations on the valley floor; and grasslands associations on the sloping margins of the San Joaquin Valley and Carrizo Plain region.	Absent. Suitable shrubland habitat is not present within the Project site. Additionally, the site appears to have been previously disturbed.
Short-nosed kangaroo rat <i>(Dipodomys nitratoids brevinasus)</i>	CSC	Occurs in lighter, powdery soils such as the sandy bottoms and banks of arroyos and other sandy areas with slightly to highly saline soils on gently sloping and rolling low hill-tops with shrubs.	Absent. Habitat in the San Joaquin Valley floor which may have historically been suitable for this species has largely been removed due to intensive agricultural use.
Townsend's Big-eared bat <i>(Corynorhinus townsendii)</i>	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	Possible. Suitable foraging habitat is present within the Project site; however, roosting habitat is absent.
Pallid bat <i>(Antrozous pallidus)</i>	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	Possible. Suitable foraging habitat for this species is present within the Project Site; however, roosting habitat is absent.
California mastiff bat <i>(Eumops perotis ssp. californicus)</i>	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	Possible. Suitable foraging habitat for this species is present within the Project Site; however, roosting habitat is absent.
American badger <i>(Taxidea taxus)</i>	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Possible. No burrows of the size and shape characteristic of this species were observed on the Project Site. It is possible this species may establish burrows within the project site.
Ringtail <i>(Bassariscus astutus)</i>	CP	Riparian and heavily wooded habitats near water.	Absent. Habitat for this species is absent from the Project site.

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

Present: Species observed within the project site at time of field surveys or during recent past.
 Likely: Species not observed within the project site, but it may reasonably be expected to occur there on a regular basis.
 Possible: Species not observed within the project site, but it could occur there from time to time.
 Unlikely: Species not observed within the project site, and would not be expected to occur there except, perhaps, as a transient.
 Absent: Species not observed within the project site, and precluded from occurring there because habitat requirements not met.

TABLE BIO-1 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 Fully Protected
		CSC	California Species of Special Concern
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California		
1B	Plants Rare, Threatened, or Endangered in California and elsewhere		
5	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		
6	Plants about which we need more information – a review list		
7	Plants of limited distribution – a watch list		

Source: Live Oak Associates, 2022

A detailed discussion of the species with potential to use the project site as breeding habitat (burrowing owl), and as a transit corridor (San Joaquin kit fox) follows. This discussion also includes Swainson’s hawk, a potential forager on the site, due to its status as a listed Threatened Species in California.

Burrowing Owl

The burrowing owl is designated as a California Species of Special Concern, and has no federal listing status. This designation was based on the species’ declining population within the state over the past 40 years. The population decline is mainly due to habitat destruction resulting from development and agricultural practices.

Burrowing owls are unique in that they are the only owl that regularly lives and breeds in underground nests. In California, these birds typically occur in the Central and Imperial Valleys, primarily utilizing ground squirrel burrows (or the burrows of other animals, e.g., badgers, prairie dogs and kangaroo rats) found in grasslands, open shrub lands, deserts, and, to a lesser extent, grazed and agricultural lands.

The only recorded observation of burrowing owls within a 5-mile radius of the project site was from a location 2 miles to the northwest. In January 2022, the project site was evaluated by LOA biologists for potential to support burrowing owls. Although no burrowing owls or their sign were observed, potentially suitable habitat for this species is present on the site. Thus burrowing owls could move onto the site in the future.

San Joaquin Kit Fox

The San Joaquin kit fox is a federally-listed Endangered species, and a California-listed Threatened species. The smallest North American member of the dog family (Canidae), the kit fox historically occupied the dry plains of the San Joaquin Valley, from San Joaquin County to southern Kern County. Local surveys, research projects, and incidental sightings indicate that kit fox currently occupy available habitat on the San Joaquin Valley floor and in the surrounding foothills.

Kit foxes prefer open, arid habitats with loose soils. In the southern and central portion of the Central Valley, kit foxes are found in valley sink scrub, valley saltbrush scrub, upper Sonoran subshrub scrub, and annual grassland. Kit foxes may also be found in grazed grasslands, urban settings, and in areas adjacent to tilled or fallow fields. They require underground dens to raise pups, regulate body temperature, and avoid predators and other adverse environmental conditions. In the central portion of their range, they usually occupy burrows excavated by small mammals such as California ground squirrels. Kit fox are primarily carnivorous, feeding on squirrels, black-tailed hares, desert cottontails, rodents, insects, and ground-nesting birds.

Project site consists of ruderal fields or pasture land which is generally unsuitable for foraging kit fox. Kit fox infrequently use the lands in the project vicinity as is evident from the lack of sightings within at least 6.0 miles of the Utica Avenue Solar project site over the past 30 years. No kit fox, or their sign, were observed during the site survey by LOA biologists in January 2022. Based on the site's location and the distribution of kit fox occurrences in its vicinity, the project site may only rarely be used for regional movements of individual kit fox.

Swainson's Hawk

The Swainson's hawk is designated as a California Threatened species, and has no federal listing status. 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.

Swainson's hawks are large, broad-winged, broad-tailed hawks and have a high degree of mate and territorial fidelity. In the Central Valley they arrive at their nesting sites in March or April. The nest is likely to be a large stick nest (3 to 4 feet in diameter) constructed in a tree. In the Central Valley, Swainson's hawks typically nest in large trees within or peripheral to riparian systems adjacent to suitable foraging habitats. Other suitable nest sites include lone trees, groves of trees such as oaks, other trees in agricultural fields, and mature roadside trees. The young hatch sometime between March and July and do not leave the nest until some 4 to 6 weeks later. 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.

The nearest previously observed Swainson's hawk nest was located one mile north of the Utica Avenue Solar Project site in 1998. No other observations have been reported within a 10-mile radius of the project site. The nearest trees which could support a Swainson's hawk nest are located at least 1,000 feet north of the project site, and these trees have poor suitability for nesting of Swainson's hawks.

Other Migratory Birds

Other migratory birds include most bird species with the exception of house sparrow and European starling, among a few other non-native birds. Migratory birds and their nests are protected under the Federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code (Sections 3503 and 3513). Between approximately February 1 and August 31, migratory birds nest throughout California and the Central Valley on the ground and in grasses, shrubs, and trees.

Ground nesting birds such as burrowing owl and killdeer, among other disturbance-tolerating birds, may utilize the ground vegetation of the Utica Avenue Solar Project site for nesting. Although there are no trees on or near the project site, there are trees in the general vicinity which may be used by tree-nesting birds.

Jurisdictional Waters

Jurisdictional waters include rivers, creeks, and drainages that are under the regulatory authority of the U.S. Army Corps of Engineers (USACE), the CDFW, and/or the California Regional Water Quality Control Board (RWQCB). The USACE regulates the filling or grading of jurisdictional waters (i.e., “Waters of the U.S.”) 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. The nearest known water of the U.S. is the Kings River, which is approximately 8.0 miles north of the project site at its nearest point.

The only hydrologic feature occurring within the study area is the dry former irrigation canal along the site’s northern boundary. Neither this canal nor other canals and ditches in the vicinity receive water from the Kings River. Artificial waterways such as canals are typically not claimed by the agencies unless they receive water from a Known Water of the U.S., and then return water to a Known Water of the U.S. As such, the former irrigation canal which passes through the northwest corner of the project site does not qualify as a Water of the U.S. and thus does not fall under the jurisdiction of the USACE.

The California Regional Water Quality Control Board (RWQCB) has jurisdiction over “Waters of State” under the Porter-Cologne Water Quality Control Act. Since the State definition of “waters” is broader than the federal definition, the segment of on-site irrigation canal may be considered a water of the State.

The 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. The CDFW typically only asserts jurisdiction over ponds, lakes, and natural drainages or manmade features that replace natural drainages and, therefore, is unlikely to regulate alterations to the segment of artificial canal that passes through the northwest corner of the Utica Avenue Solar Project site.

For a detailed discussion of jurisdictional waters, see the LOA biological report in Appendix B of this document.

Wildlife Movement Corridors

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with

valleys, rivers and creeks supporting riparian vegetation, and ridgelines. The intense farming throughout the San Joaquin Valley over the last century has long altered the more traditional regional movement patterns of wildlife. While regionally occurring wildlife does, in fact, move across the broad range of the Valley, they do so less effectively than they once did, relying more extensively on various linear features such as canals, ditches and creeks. Regionally, the areas which provide for regional wildlife movement include areas of the foothills of the Sierra Nevada and the Coast Ranges that have not been substantially altered.

The project site consists of a ruderal field adjacent to canal habitat. Canals and ditches adjacent to and near the project site can function as movement corridors for the regular home range or dispersal movements of native wildlife, including special status species. The USFWS' *Recovery Plan for Upland Species of the San Joaquin Valley* (Recovery Plan) does not show movement corridors within or near the project site. The Recovery Plan shows the foothills to the west as a north-south movement corridor (USFWS 1998).

Designated Critical Habitat

The USFWS often designates areas of "critical habitat" when it lists species as threatened or endangered. Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. There are no designated critical habitat areas in the project vicinity.

Natural Communities of Special Concern

Natural communities of special concern are those that are of limited distribution, have significant biological diversity, or provide important habitat for special status species. The California Department of Fish and Wildlife is responsible for the classification and mapping of all natural communities in California. Natural communities are assigned state and global ranks according to their degree of imperilment. Examples of natural communities of special concern in the vicinity of the project site include vernal pools, such as those found east of the Kings River and north of the Tulare Dry Lakebed, and various types of riparian forest, such as those found along the Kings River north of SR-41. The vegetation associations present on the project site are dominated by non-native species, and are not considered natural communities of special concern.

Habitat Conservation Plans (HCPs)

The only HCP that may apply to the Utica Avenue Solar Project is PG&E's "San Joaquin Valley Operations and Maintenance Habitat Conservation Plan." This HCP covers 23 wildlife species and 42 plant species for 33 routine operations and maintenance activities for PG&E's electric and gas transmission and distribution systems within nine counties in the San Joaquin Valley, including Kings County. The HCP prescribes best management practices to ensure that PG&E's operational and maintenance activities comply with the federal and state Endangered Species Acts. The proposed project is within the boundaries of the HCP. Although the HCP mainly covers operational and maintenance activities, it also covers small construction projects such as minor extensions of electrical lines (J&S 2006).

There are no other HCPs or Natural Community Conservation Plans that cover the project area. However, the USFWS has adopted the *Recovery Plan for Upland Species of the San Joaquin Valley* which covers 34 species of plants and animals that occur in the San Joaquin Valley. The majority of these species occur in arid grasslands and scrublands of the San Joaquin Valley and the adjacent foothills and

valleys. The plan includes information on recovery criteria, habitat protection, umbrella and keystone species, monitoring and research program, adaptive management, and economic and social considerations. The only species addressed in the recovery plan that potentially occurs in the project vicinity is the San Joaquin kit fox, although no sightings of this species have been recorded within a 10-mile radius since 2001. The Recovery Plan does not identify the project area or any other lands in the vicinity as areas that should be protected as Specialty Reserve Areas, Wildlife-Compatible Farmland to be Maintained, or Areas Where Connectivity and Linkages Should be Promoted (USFWS 1998).

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives, and policies related to biological resources that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

D. Natural Plant and Animal Habitats

RC GOAL D1 Preserve land that contains important natural plant and animal habitats.

RC OBJECTIVE D1.1 Require that development in or adjacent to important natural plan area and animal habitats minimize the disruption of such habitats.

RC Policy D1.1.1: Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix C. If the results of the project screening indicates the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix C) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate. Mitigation may include habitat improvement or protection, acquisition of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.

RC Policy D1.1.2: Require project applicants to consult with the California Department of Fish and Game and the United States Fish and Wildlife Service and to obtain appropriate authority for any such take pursuant to Endangered Species Act requirements if new development or other actions are likely to result in incidental take of any threatened or endangered species.

RC GOAL D2 Maintain the quality of existing natural wetland areas as required by the California Department of Fish and Game, the United States Fish and Wildlife Service and the United States Army Corp of Engineers.

RC OBJECTIVE D2.1 Maintain compatible land uses in natural wetland habitats designated by state and federal agencies.

RC Policy D2.1.1: Follow state and federal guidelines for the protection of natural wetlands. Require developers to obtain authorization from the appropriate local, state, or federal agency prior to commencement of any wetland fill activities.

RC Policy D2.1.2: Use the California Environmental Quality Act (CEQA) process to assess wetland resources, and require mitigation measures for development which could adversely impact a designated wetland.

RC Policy D2.1.3: “Prior Converted Croplands” as defined by state and federal regulations shall be exempt from consideration as wetlands under the County planning process.

E. Threatened and Endangered Species

RC GOAL E1 Balance the protection of the County’s diverse plant and animal communities with the County’s economic needs.

RC OBJECTIVE E1.1 Require mitigation measures to protect important plant and wildlife habitats.

RC Policy E1.1.1: Complete the inquiry process outlined in Appendix C in the initial project review for development permits to determine whether the project is likely to have a significant adverse impact on any threatened or endangered species habitat locations, and to assure appropriate consideration of habitat preservation by development. Maintain current copies of California Department of Fish and Game and United States Fish and Wildlife Service maps showing locations of known threatened and endangered species habitat. If shown to be necessary, require the developer to consult with the California Department of Fish and Game, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers as to potential impacts, appropriate mitigation measures, and required permits.

RC Policy E1.1.2: Require as a primary objective in the review of development projects the preservation of healthy native oaks and other healthy native trees.

RC Policy E1.1.3: Maintain to the maximum extent practical the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).

Environmental Evaluation

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

Less-than-Significant Impact with Mitigation Incorporated. The Utica Avenue Solar Project would have a potentially significant impact upon four species of wildlife, including: San Joaquin kit fox, a federally-listed Endangered species and a California-listed Threatened species; Swainson’s hawk, a California-listed Threatened species; burrowing owl, a California Species of Special Concern; and American badger, a California Species of Special Concern. The project could also have a potentially significant impact upon nesting raptors and migratory birds, which are protected under the Migratory Bird Treaty Act. The potential project impact to each of these special status species is discussed below, along with mitigation measures that would reduce the impacts to *less-than-significant* levels.

San Joaquin kit fox

Kit fox infrequently use the heavily farmed areas in the project vicinity as is evident from the lack of sightings within at least 9 miles of the Utica Avenue Solar project site over the past 20 years. Based on the site’s location and the distribution of kit fox occurrences in its vicinity, the project site may only rarely be used for regional movements of individual kit fox. The irrigation canal along the northern border of the Project Site may act as movement corridor; however, should a kit fox utilize this or other nearby canals as corridors, the fox would have to travel through marginal to poor habitat before reaching the project site, which itself holds marginal habitat value. Kit foxes from populations reported from the surrounding areas may pass through and possibly forage within the project site from time to time during regular dispersal movements. The Utica Avenue Solar Project is expected to result in a less-than-significant impact on kit fox foraging and denning habitat, and it is not expected to impede regional movement patterns of this species.

Although the Utica Avenue Solar Project site does not provide suitable kit fox habitat, any kit foxes traversing the area during the construction phases could be harmed, injured or killed. Therefore, there is a potentially significant impact to individual kit foxes, should they traverse the project site during construction. The potential impacts to San Joaquin kit fox would be reduced to a *less-than-significant* levels through implementation of the following mitigation measure.

Mitigation Measure BIO-1: San Joaquin Kit Fox Protection. *In order to minimize the potential for impacts to San Joaquin kit fox, the following measures shall be implemented in conjunction with the construction of the Utica Avenue Solar Project:*

- a. **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 shall be conducted in accordance with the “U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance” (USFWS 2011). The primary objective is to identify San Joaquin kit fox habitat features (e.g., potential dens and*

refugia) on the project site and evaluate their use by San Joaquin kit fox. If an active San Joaquin 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.

- b. Kit Fox Avoidance Measures. Should San Joaquin kit fox be found using the Utica Avenue Solar Project site during preconstruction surveys, the construction activity shall avoid the habitat occupied by kit fox and the Sacramento Field Office of the USFWS and Fresno Field Office of CDFW shall be notified.*
- c. Employee Education Program. Prior to the start of construction, the applicant shall retain a qualified biologist to conduct an on-site training session to educate all construction staff on the San Joaquin kit fox. This training shall include a description of the San Joaquin kit fox, a brief summary of their biology, and a list of minimization measures and instructions on what to do if a San Joaquin kit fox is observed within the Utica Avenue Solar Project site.*
- d. Minimization of Potential Disturbance to Kit Fox. Whether or not kit foxes are found to be present, all permanent and temporary construction activities and other types of project-related activities shall be carried out in a manner that minimizes potential disturbance to San Joaquin kit fox. 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 San Joaquin kit fox; restriction of rodenticide and herbicide use; and proper disposal of food items and trash. The full list of protection measures required by the USFWS during construction and operation contained in USFWS Standardized Recommendations (USFWS 2011), and is presented in Table BIO-2. The protection measures set forth in Table BIO-2 are fully incorporated into this mitigation measure by reference.*
- e. Mortality Reporting. The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be notified in writing within three working days in case of the accidental death of 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.*
- f. Wildlife-friendly Fencing. The perimeter fencing surrounding each phase of the Utica Avenue Solar Project shall consist of wildlife-friendly or permeable fencing that allows San Joaquin kit fox and other wildlife to move through the site unimpeded. The bottom of the perimeter fencing shall be 5 to 7 inches above the ground, as measured from the top of the ground to the lowest point of the fence. The bottom of the fence edges shall be knuckled (wrapped back to form a smooth edge) to allow wildlife to pass through safely. The fencing shall not be electrified.*

Table BIO-2

**U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS
FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE
CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS**

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted under measure 13 referenced below.
3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should 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 should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
5. No firearms shall be allowed on the project site. (This prohibition does not apply to law enforcement personnel such as Sheriff's Deputies or the Fire Marshal.)
6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the USFWS. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS

(Continued on next page.)

Table BIO-2 (Cont'd)

U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin 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 measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc., should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to “temporary” disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the USFWS, California Department of Fish and Wildlife (CDFW), and revegetation experts.
11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for guidance.
12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530) 934-9309. The USFWS should be contacted at the numbers below.
13. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.
14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

Nesting Raptors and Migratory Birds

In addition to the Swainson's hawk and burrowing owl (discussed below), several other raptor species such as the northern harrier, white-tailed kite, red-tailed hawk, and golden eagle are known to forage in the project area. Additionally, the project site provides nesting habitat for several migratory bird species, including, but not limited to, the snowy plover, black-necked stilt, common raven, common raven, loggerhead shrike, house finch, and Brewer's blackbird. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The canal habitat, as well power poles and barren ground on the project site provide potential nesting habitat for these species. If birds were to nest in these areas prior to construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3 of the LOA report in Appendix B for further discussion) and would represent a significant impact.

The potential impacts to nesting raptors and migratory birds would be reduced to a *less-than-significant* levels through implementation of the following mitigation measure.

Mitigation Measure BIO-2: Protection for Nesting Raptors and Migratory Birds. *In order to minimize construction disturbance to active raptor and other migratory bird nests, the following measures shall be implemented in conjunction with the construction of the Utica Avenue Solar Project:*

- a. *Pre-construction Surveys. If tree removal, site preparation, grading, or construction is planned to occur within the breeding season (February 1 - August 31), a qualified biologist shall conduct pre-construction surveys for active migratory bird nests within 10 days of the onset of these activities. If construction activity is planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.*
- b. *Monitoring Active Nests. Should any active nests be discovered in or near planned construction zones, a qualified biologist shall continuously monitor identified nests for the first 24 hours prior to any construction related activities to establish a behavioral baseline. Once work commences, continuously monitor all nests to detect any behavioral changes as a result of the project. If behavioral changes are observed, stop the work causing that change and consult with the California Department of Fish and Wildlife for additional avoidance and minimization measures.*
- c. *Exclusion Zones for Active Nests. Alternatively, should any active nests be discovered in or near the planned construction zones, the biologist shall establish a 250-foot construction-free buffer around the nest for non-listed birds, a 500-foot buffer for unlisted raptors, and a half-mile for listed bird species. This buffer shall be identified on the ground with flagging or fencing, and shall be maintained until the biologist has determined that the young have fledged. Variance from these setback distances may be allowed if a qualified biologist provides compelling biological or ecological reason to do so and if CDFW is notified in advance of implementation of a no disturbance buffer variance.*
- d. *Tailgate Training for Workers. All construction and operations workers on the Utica Avenue Solar Project site shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is*

located, and the importance of capping pipes and pipe-like structures standing upright in order to avoid birds falling into the pipes and getting stuck.

- e. Capping of Hollow Poles and Posts. Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow tubes or poles be utilized on the Utica Avenue Solar Project site, the poles shall be capped immediately after installation to prevent entrapment of birds.

Burrowing Owl

Nesting Habitat

During the biological surveys of the Utica Avenue Solar Project site conducted by LOA in January 2022, no burrowing owls or their sign were observed on the project site. However, suitable on-site habitat is present in the form of small animal burrows and foraging habitat within the ruderal field on the project site.

The development of the Project Site could result in the loss of foraging and breeding habitat for burrowing owls. Since abundant suitable foraging and breeding habitat exists in the lands surrounding the Utica Avenue Solar Project site and in the general vicinity to support burrowing owls, the loss of 29.5 acres of foraging and breeding habitat as result of project development would not constitute a significant impact.

These small raptors are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. For any burrowing owls nesting on the project site at the time of project construction, ground disturbing activities associated with construction of the Utica Avenue Solar Project may result in the mortality of burrowing owls, as they are known to retreat into their burrows ahead of approaching heavy equipment. Mortality of individual birds would be a violation of state and federal law, and would constitute a significant environmental impact.

The potential impacts to individual nesting burrowing owls which may be present on the project site prior to construction would be reduced to a *less-than-significant* levels through implementation of the following mitigation measures.

Mitigation Measure BIO-3: Burrowing Owl Protection. *In order to minimize the potential for impacts to burrowing owls, the following measures shall be implemented, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:*

- a. Pre-Construction Surveys. *Pre-construction surveys shall be conducted for burrowing owls by a qualified biologist no more than 14 days prior to the onset of ground-disturbing activity. Pre-construction surveys shall be repeated if construction halts for more than 14 days. These surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012) or the most recent CDFW guidelines. The surveys shall cover all areas of suitable habitat within the planned construction zones.*
- b. Avoidance of Active Nests During Breeding Season. *If pre-construction 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 shall be established around all active owl nests. The buffer zones shall be enclosed with temporary*

- fencing, and construction equipment and workers shall not be allowed to enter the enclosed setback areas. These buffer zones shall 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, but only under the conditions described below.*
- c. *Avoidance of Occupied Burrows During Non-Breeding Season, and Passive Relocation of Resident Owls.* *During the non-breeding season (September through January), any burrows occupied by resident owls in areas planned for construction shall be protected by a construction-free buffer with a radius of 150 to 250 feet around each active burrow, with the required buffer distance in each case to be determined by a qualified biologist. Passive relocation of resident owls is not recommended by CDFW where it can be avoided. If passive relocation is not avoidable, resident owls may be passively relocated according to a relocation plan prepared by a qualified biologist.*
- d. *Tailgate Training for Workers.* *All construction workers shall attend a tailgate training session conducted by a qualified biologist. The training is to include a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if a burrowing owl is observed within or near a construction zone.*

Swainson's Hawk

Impacts to Swainson's Nesting Habitat

As discussed under 'Biological Setting,' there are no Swainson's hawk nests on Utica Avenue Project site or in the vicinity. The nearest previously observed nest was located one mile north of the Utica Avenue Solar Project site in 1998. No other observations have been reported within a 10-mile radius of the project site. The nearest trees which could support a Swainson's hawk nest are located at least 1,000 feet north of the project site, and these trees have poor suitability for nesting of Swainson's hawks. Swainson's hawks may nest in suitable trees located within a half mile of the project site (the typical construction-free buffer distance from active nest sites). Construction activities occurring near an active Swainson's hawk nest could adversely affect nesting success or result in mortality of individual birds and would be considered a significant impact under CEQA. Therefore, the potential impact to nesting habitat for Swainson's hawk due to construction of the Utica Avenue Solar Project would represent *a potentially significant impact*. Implementation of the following mitigation measure would reduce potential impacts to Swainson's hawk nesting habitat to *less-than-significant* levels.

Mitigation Measure BIO-3: Swainson's Hawk Protection. *In order to minimize the potential for impacts to Swainson's hawks, the following measures shall be implemented, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:*

- a. *Pre-Construction Surveys.* *During the nesting season prior to the construction on the Utica Avenue Solar Project site within a half-mile of a potential nest tree, preconstruction surveys shall be conducted within the construction zones and adjacent lands to identify any nesting pairs of Swainson's hawks. These surveys will conform to the guidelines 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. No preconstruction surveys are required for construction activity located farther than a half-mile from a potential nest tree.*

- b. Establish Buffers. *Should any active nests be discovered in or near proposed construction zones, the qualified biologist shall establish a suitable construction-free buffer around the nest. This buffer shall be identified on the ground with flagging or fencing, and shall be maintained until the biologist has determined that the young have fledged.*
- c. Tailgate Training. *All workers on the construction of the project shall attend tailgate training that includes a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if a Swainson's hawk is observed on or near the construction zone.*

Project Impacts to Swainson's Hawk Foraging Habitat

Swainson's hawks may occasionally forage on the Utica Avenue Solar Project site. However, there is abundant foraging habitat for Swainson's hawks in the project vicinity. Given the absence of known Swainson's hawk nests within a 10-mile radius of the project site, the loss of foraging habitat resulting from the Utica Avenue Solar Project would represent a *less-than-significant* impact to foraging habitat for Swainson's hawk.

American Badger

Given the observations of American badgers, a California Species of Special Concern, on lands in the region with similar habitats to those of the Utica Avenue Solar Project site, the potential exists that the American badger may reside within the Utica Avenue Solar site or in the vicinity. No badgers or badger burrows were observed in the area during any of the surveys of the project site. However, the surveys took place during the day when badgers are not typically active above ground. Potential badger habitat was found on the project site in the form of ruderal fields. While the occurrence of badgers is expected to be unlikely, it cannot be ruled out. As such, there is a potential for significant impact to American badgers. The implementation of the following mitigation measure would reduce the potential impact to American badgers to *less-than-significant* levels.

Mitigation Measure BIO-5: American Badger Mitigation. *The following measures shall be implemented to minimize impacts to the American badger, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:*

- a. Preconstruction Surveys for American Badger. *During the course of pre-construction surveys prescribed for other species, a qualified biologist shall also determine the presence or absence of badgers prior to the start of construction. If badgers are found to be absent, a report shall be written to the applicant so stating and no other mitigations for the protection of badgers would be warranted.*
- b. Avoidance of Active Badger Dens and Monitoring. *If an active badger den is identified during pre-construction surveys within or immediately adjacent to an area subject to construction, a construction-free buffer of up to 300 feet shall be established around the den. Once the biologist has determined that the badger(s) have vacated the burrow, the burrow can be collapsed or excavated, and ground disturbance can proceed. Should the burrow be determined to be a natal or reproductive den, and because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor shall be present on-site during construction activities in the vicinity of the burrows to ensure the buffer is adequate to avoid direct impact to individuals or natal/reproductive den abandonment. The monitor*

shall be required on-site until it is determined that young are of an independent age and construction activities would not harm individual badgers.

- c. *Tailgate Training for Workers.* *All construction workers shall attend a tailgate training session conducted by a qualified biologist. The training is to include a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if an American badger is observed.*

Loss of Habitat for Special Status Plants

Four special-status vascular plant species are known to occur in the vicinity of the project site: San Joaquin woollythreads, Lost Hills crownscale, recurved larkspur, and Kings gold. Due to historical land management and soils of the site, habitat for these four plant species is absent from the Utica Avenue Solar Project site. Therefore, the impacts to regional populations of these species would be *less than significant*.

Loss of Habitat for Special Status Animals Absent or Unlikely to Occur in the Project Area

Of the 33 special status animal species potentially occurring in the region, 21 species would be absent or unlikely to occur within the Utica Avenue Solar Project site due to unsuitable habitat conditions. These include: vernal pool fairy shrimp, valley elderberry longhorn beetle, Monarch butterfly, Delta smelt, California tiger salamander, California red-legged frog, giant garter snake, blunt-nosed leopard lizard, western spadefoot, San Joaquin whipsnake, western yellow-billed cuckoo, tricolored blackbird, black tern, fulvous whistling duck, olive-sided flycatcher, Tulare grasshopper mouse, short-nosed kangaroo rat, Nelson’s antelope squirrel, giant kangaroo rat, Tipton kangaroo rat, and ringtail. Construction of the Utica Avenue Solar Project would have no impact on these species because there is little or no likelihood that they are present.

Loss of Habitat for Special Status Animals that May Occur as Occasional or Regular Foragers on the Project Site

There are 12 species that may occasionally utilize the Utica Avenue Solar Project site for foraging or dispersal movements. These species include: Swainson’s hawk, golden eagle, western snowy plover, northern harrier, white-tailed kite, mountain plover, burrowing owl, Townsend’s big-eared bat, pallid bat, California mastiff bat, San Joaquin kit fox, and American badger. LOA’s biologists determined that the Utica Avenue Solar Project site does not provide regionally important foraging habitat for these species (see LOA Biological Assessment in Appendix B of this document). Considerable habitat suitable for migratory movements and winter foraging would continue to be available for these species on other lands within the region following development of the project. Therefore, project development would result in a *less-than-significant impact* on these species.

- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

No Impact. As discussed in ‘Biological Setting’ above, LOA determined that the canals and ditches within and adjacent to the Utica Avenue Solar Project site do not meet the requirements of the USACE as jurisdictional wetland. The construction of the Utica Avenue Solar Project is not planned or expected to encroach upon or physically alter any on-site or off-site canals. The agricultural lands

that occupy the Utica Avenue Solar Project site are not considered sensitive habitats and do not provide significant habitat value to regional wildlife populations. Because riparian and other sensitive habitats are absent from the project site, construction of the Utica Avenue Solar Project and access corridor would have *no impact* on riparian habitat or other sensitive natural community.

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less-than-Significant Impact. As discussed in ‘Biological Setting’ above, the only hydrologic feature within the project site is a short segment of disused irrigation canal along the site’s northern boundary. This feature would not qualify as a water of the U.S. but may be considered a water of the State.

An existing earthen berm within the canal is proposed to be widened by approximately 20 feet to accommodate the vehicular access entrance to the project site. Widening of the berm would result in approximately 20 linear feet of fill in the canal. Fill of a short reach of the canal would not significantly alter its existing function or value. Therefore, this impact would be considered *less than significant*.

d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less-than-Significant Impact. It is likely that some species use the on-site segment of former irrigation canal and other ditches and canals in the vicinity, as well as potentially the project site itself as movement corridors, including San Joaquin kit fox. The project site likely has some small value for the regional movements of some wildlife species; however, the adjacent and nearby canal system has greater value when placed in a regional context. Since the development of the Utica Avenue Solar Project is expected to affect only a small portion of the inactive canal along the northern boundary of the site, it is expected that wildlife that currently uses the canal for movement will continue to use the canal system to move through the site and vicinity at project build-out.

To allow for ground movement of wildlife through the project site, all fencing enclosing the solar facility is planned to consist of “wildlife friendly” fencing with a continuous 5- to 7-inch separation from the top of the ground to the lowest point of the bottom of the fence along the entire fence. Such fencing will not be electrified.

In summary, wildlife currently using the Utica Avenue Solar Project site for movement are expected to continue to do so after project completion, given that wildlife friendly fencing will be installed around the Utica Avenue Solar Project and the adjacent canal system will be retained, thus allowing for wildlife movement through the site unimpeded. Therefore, the Utica Avenue Solar Project would result in a *less-than-significant impact* on regional or local wildlife movements.

With respect to native wildlife nursery sites, the aquatic habitat associated with the irrigation canals on and adjacent to the Utica Avenue Solar Project site could provide nursery sites for native wildlife.

Since these features would be largely avoided by the Utica Avenue Solar Project, the potential project impacts to wildlife nursery sites would be *less-than-significant*.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The “Resource Conservation Element” of the *2035 Kings County General Plan* contains several goals and policies pertaining to biological resources. The resource conservation goals of the Kings County General Plan relating to biological resources are summarized as follows: 1) protect the Kings River and associated riparian habitat; 2) preserve land that contains important natural plant and animal habitats; 3) maintain the quality of natural wetland areas; and 4) protect and manage riparian environments as valuable resources. The corresponding policies require biological assessments of proposed development projects, including coordination with the resource agencies and compliance with their permitting requirements, and mitigation for potential impacts to biological resources (Kings County 2010b). The project would assure consistency with the General Plan goals and policies on biological resource protection through completion of this environmental impact review pursuant to CEQA, including project incorporation of mitigations recommended by the resource agencies. Thus the Utica Avenue Solar Project would be consistent with the relevant General Plan goals and policies and would have *no impact* in terms of conflicts with those policies.

Kings County does not have any ordinances protecting biological resources, such as a tree preservation ordinance. However, General Plan Resource Conservation Policy E1.1.2 requires the preservation of healthy native trees as a primary objective in the review of development projects (Kings County 2010b). Since the Utica Avenue Solar Project site includes no trees, the project would have *no impact* in terms of a potential conflict with this tree preservation policy.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. As discussed in ‘Biological Setting’ above, the only HCP that may apply to the Utica Avenue Solar Project is PG&E’s “San Joaquin Valley Operations and Maintenance Habitat Conservation Plan.” The proposed project is within the boundaries of the HCP. Although the HCP covers operational and maintenance activities, it also covers small construction projects such as minor extensions of electrical lines (J&S 2006). The HCP would likely cover the project’s interconnection to PG&E’s system (at the adjacent 12-kV distribution line), but would not cover construction of Utica Avenue Solar Project itself. The mitigation measures identified above for protection of wildlife during project construction and operation would be compatible with the requirements of the HCP since they also ensure compliance with the federal and state Endangered Species Acts. Therefore, the project would have *no impact* in terms of potential conflict with this HCP.

The USFWS has adopted the *Recovery Plan for Upland Species of the San Joaquin Valley* which covers 34 species of plants and animals that occur in the San Joaquin Valley. The majority of these species occur in arid grasslands and scrublands of the San Joaquin Valley and the adjacent foothills and valleys. The only species covered in the recovery plan that potentially occurs in the project vicinity is the San Joaquin kit fox, although no sightings of this species have been recorded in the

project area since 2001, as discussed above. The Recovery Plan does not identify the project site or any other lands in the vicinity as areas that should be protected as Specialty Reserve Areas, Wildlife-Compatible Farmland to be Maintained, or Areas Where Connectivity and Linkages Should be Promoted (USFWS 1998). Because the San Joaquin kit fox has a small potential to occur on the site, the mitigation measures identified above in MM Bio-1 would mitigate any potential project impacts to kit fox. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of potential conflict with the “Recovery Plan.”

The Utica Avenue Solar Project site is not covered by any other existing Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP), or any other conservation plan adopted at the local, regional, state, or federal level. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of potential conflict with any such plans.

REFERENCES – BIOLOGICAL RESOURCES

- CDFG 2012 California Department of Fish and Game (CDFG). 2012. *Staff Report on Burrowing Owl Mitigation*. May 7.
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- J&S 2006 Jones & Stokes (J&S). 2006. *Final PG&E San Joaquin Valley Operation & Maintenance Habitat Conservation Plan*. December.
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<http://www.countyofkings.com/home/showdocument?id=3112>
- LOA 2022 Live Oak Associates (LOA). 2022. *Utica Avenue Solar Project – Biological Assessment, Kings County, California*. March. [Contained in Appendix B of this document.]
- USFWS 1998 U.S. Fish & Wildlife Service (USFWS). 1998. *Recovery Plan for the Upland Species of the San Joaquin Valley, California*. September. Available at
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- USFWS 2011 U.S. Fish & Wildlife Service (USFWS). 2011. *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior To or During Ground Disturbance*. Prepared by Sacramento Fish and Wildlife Office, January. http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/kitfox_standard_rec_2011.pdf

4.5. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §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) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Introduction

The evaluation in this section is based on the cultural resources report prepared by Basin Research Associates in May 2022. The Basin Research Associates report is kept administratively confidential by the Kings County Community Development Agency (CDA) pursuant to Government Code Section 6254, subdivision (r) and Section 6254.10.

The research conducted for the cultural resources report by Basin Research Associates included a prehistoric and historic site records search through the California Historical Resources Information System, Southern San Joaquin Valley Information Center, California State University (CSU) Bakersfield. In addition, Basin Research conducted a review of pertinent literature and archival records, and cultural resources compliance reports on other projects in the area, among other sources.

The Native American Heritage Commission (NAHC) was contacted for a review of the *Sacred Lands Inventory (SLF)* for the Utica Avenue Solar Project on January 20, 2022. The NAHC responded on April 20, 2022 and noted that the review of the SLF was negative. Ten tribes or knowledgeable individuals were contacted using the lists provided by Kings County and the NAHC to obtain additional information. Responses were received from two tribes including the Xolon Salinan Tribe and the Tachi Yokut Tribe. The Xolon Salinan Tribe indicated that the project site is not within the Tribe’s ancestral territories and thus had no comments at this time. The Tachi Yokut Tribe responded that the Tribe has history and knowledge of the project area and requested that the Tribe be retained for Native American Monitoring and be involved in the treatment and curation of any cultural resources and burials discovered. It is anticipated that Kings County will undertake consultation with the Tachi Yokut Tribe, a federally recognized tribe, located at the Santa Rosa Rancheria, Lemoore in accordance with previous outreach efforts.

Basin Research Associates conducted a systematic field inventory of the Utica Avenue Solar Project site in January 2022. The field inventory identified six isolated lithic finds (stone objects), none of which can be considered definitive cultural artifacts. The isolated finds were left in place and are considered background scatter and are not associated with cultural deposits.

Setting

Native American Resources

Ethnography

Prehistoric occupation and use of the general area dates from perhaps as early as 12,000 years ago. The wetland environment of the nearby Tulare Lake would have provided a favorable environment for prehistoric Native Americans due to the availability of resources such as fresh water, fish and large game. In the later period beginning about 1,500 years ago, subsistence began to focus on processing of acorns and other plant foods, with a decreased emphasis on hunting and fishing.

The project site was within the territory of the Southern Valley Yokuts tribe known as the *Tachi (Tache)*, whose territory extended from the north and west shores of Tulare Lake to the Kettleman Hills and foothills of the Coast Ranges. The *Tachi* village of *Walna-at*, one of eight in Tachi territory, was located southeast of Kettleman City. The current location of the Santa Rosa Indian Community of the Santa Rosa Rancheria, California (a.k.a. Santa Rosa Rancheria Tachi Yokut Tribe) conforms to the former site of the *Tachi* village of *Wai*. The community, a federally-recognized Indian tribe, is located approximately 21 miles northeast of the project site. The “Santa Rosa Rancheria” is a designated State of California Ethnic site.

Prehistoric Archaeology

The literature search by Basin Research found that no prehistoric resources have been recorded within 0.25 mile of the project site. Isolated finds are not eligible for listing on either the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR).

A major archaeological site – the Witt Archaeological Locality (WAL) – is located approximately 1.75 miles from the Utica Avenue Solar Project site at its nearest point. The Witt Site (CA-KIN-32) consists of 16 prehistoric archaeological sites/loci in the general area north of Utica Avenue with the majority of the sites/loci located on the north side of the Blakely Canal between approximately Mile 1.75 and Mile 5.75 northeast/east of the solar project site. Prehistorically, this area was prime marsh habitat. Unfortunately, these sites/loci have been impacted by agricultural activities as well as avocational surface collecting.

The Witt Site is recognized as one of the most significant sites in the region and is the only archaeological site in Kings County listed on the National Register of Historic Places (NRHP). Archaeological finds at the roughly 10-acre resource have included fluted projectile points, scrapers, crescents, and Lake Mojave series projectile points. Archaeological investigations conducted near the Witt Site indicated sustained occupation of the Tulare Lake Basin dating from the PaleoIndian Period (ca 12,000 to 8,000 years before present (BP) to historical contact in the late 1700s/early 1800s.

No other prehistoric or combined prehistoric/historic-era sites or isolates have been recorded in or within 0.25 mile of the Utica Avenue Solar Project site. No National Register of Historic Places or California Register of Historical Resources eligible or listed historic properties/cultural resources, or traditional cultural places (TCPs) have been identified in or adjacent to the Utica Avenue Solar project site.

The Native American Heritage Commission (NAHC) has indicated that a search of the Sacred Land File was negative for the presence of Native American resources in the immediate area of the Utica Avenue Solar site.

Historic-Era Resources

No known Hispanic Period or American Period dwellings or other significant structures, features (e.g., adobe dwellings, or other structures, features, etc.) have been identified in or adjacent to the Utica Avenue Solar Project site. The field inventory conducted by Basin Research Associates in January 2022 found no indications of surface or subsurface significant historic material on or adjacent to the Utica Avenue Solar Project site.

No local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified within or immediately adjacent to the Utica Avenue Solar Project site. No historic properties which have been listed, determined to be eligible or potentially eligible for inclusion on the National Register of Historic Places or the California Register of Historical Resources have been identified in or adjacent to the Utica Avenue Solar project site

Summary

Review of the archaeological and geoarchaeological data by Basin Research Associates suggests a low potential for exposing subsurface archaeological materials within the project site. This conclusion is based on the absence of recorded prehistoric and historic archaeological sites within and/or immediately adjacent to the project; the lack of any unexpected archaeological discoveries for the past 100+ years within or adjacent to the project; and, possible prior disturbance from agriculture. The presence of significant archaeological resources associated with the Witt Archaeological Location (WAL) to the north associated with Dudley Ridge and the former Tulare Lake shoreline suggests a prehistoric focus on the former Tulare Lake shoreline and marshy areas. These factors strongly suggest a Native American preference for the shoreline and associated marshes and a low to low-moderate potential for the discovery of significant surface or buried archaeological materials within the inland Utica Avenue Solar Project site. It is possible that isolated prehistoric and historic finds may be present within the project site based on the current field inventory.

Regulatory Context

State of California

California Environmental Quality Act (CEQA)

Public agencies under CEQA must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to California Public Resources Code (PRC) Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (CEQA Guidelines Section 15064.5(b).) PRC 21083.2 requires agencies to determine whether a proposed project would have an effect on “unique” archaeological resources.

Historical Resources

“Historical resource” (see PRC 21084.1 and CEQA Guidelines Section 15064.5(a)) includes a resource listed in or determined to be eligible for listing in the California Register of Historic Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP), as well as some California State Landmarks and Points of Historical Interest.

Properties of local historic significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be “historical resources” for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC 5024.1 and CEQA Guidelines Section 15064.5(a)(2)).

Generally, a lead agency considers a resource to be “historically significant” if the resource meets the criteria for listing on the CRHR, including the following:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. 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; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history (State CEQA Guidelines Section 15064.5(a)(3)).

In addition to resources listed on the CRHR or included in a local register of historical resources as defined by PRC 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC section 5024.1(g), the lead agency has discretion to treat an object, building, structure, site, area, place, record, or manuscript as a historical resource for CEQA purposes if the lead agency has substantial evidence showing that such a resource is historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC 21084.1 and CEQA Guidelines Section 15064.5(a)(3)).

CEQA states that if a proposed project would result in an impact that might cause a substantial adverse change in the significance of a historical resource, then an EIR must be prepared and mitigation measures considered. A “substantial adverse change” in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)).

Archaeological Resources

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described above, and “unique archaeological resources.” Under CEQA, an archaeological resource is considered “unique” if it can be clearly

demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC 21083.2(g)).

CEQA Guidelines (Section 15064.5(c)) provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological resource. If the site is not a historical resources, but meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC 21083.2. PRC Section 21083.2 states that if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to:

- (1) Planning construction to avoid archaeological sites.
- (2) Deeding archaeological sites into permanent conservation easements.
- (3) Capping or covering archaeological sites with a layer of soil before building on the sites.
- (4) Planning parks, greenspace, or other open space to incorporate archaeological sites.

When an archaeological resource is listed in or is eligible to be listed in the CRHR, PRC Section 21084.1 controls, and it states that “[a] project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project’s environmental analysis.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives, and policies related to cultural resources that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

I. Archaeological, Cultural, and Historical Resources

- RC GOAL I1 Preserve significant historical and archaeological sites and structures that represent the ethnic, cultural, and economic groups that have lived and worked in Kings County.

RC OBJECTIVE I1.1 Promote the rehabilitation or adaptation to new uses of historic sites and structures.

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.

RC Policy I1.1.4: Refer applications that involve the removal, destruction, or alteration of proposed or designated historic sites or County landmarks to the Kings County Museum Advisory Committee or its successor for recommended mitigation measures.

RC OBJECTIVE I1.2 Identify potential archaeological and historical resources and, where appropriate, protect such resources.

RC Policy I1.2.1: Participate in and support efforts to identify significant cultural and archaeological resources and protect those resources in accordance to Public Resources Code 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 I1.1.5: The County will respectfully comply with Government Code §6254.(r) and 6254.10 by protecting confidential information concerning Native American cultural resources. For example, adopting internal procedures such as keeping confidential archaeological reports away from public view or discussion in public meetings.

RC Policy I1.1.6: The County shall work in good faith with the Santa Rosa Rancheria Tachi Yokut Tribe (“Tribe”), the developer and other parties if the Tribe requests return of certain Native American artifacts from private development projects (e.g., for interpretive or educational value). The developer is expected to act in good faith when considering the Tribe’s request for artifacts. Artifacts not desired by the Tribe shall be placed in a qualified repository as established by the California State Historical Resources Commission (see Guidelines for the Curation of Archaeological Collections, May 1993). If no facility is available, then all artifacts shall be donated to the Tribe.

No historical sites are noted within the Utica Avenue Solar Project site or its immediate vicinity (see 2035 General Plan Resource Conservation Element – Figure RC-24 - Kings County Historical Sites).

Environmental Evaluation

a) *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

Less-than-Significant Impact with Mitigation Incorporated. Section 15064.5 of the CEQA Guidelines defines a historical resource as a resource which is eligible for listing on the California Register of Historical Resources (CRHR) as described in detail under ‘Regulatory Setting’ above. The Utica Avenue Solar Project site includes no historic properties determined to be eligible or potentially eligible for inclusion on the California Register of Historical Resources. According to the cultural resources report prepared by Basin Research Associates, there is a low potential for the discovery of significant subsurface materials from the historic era within the project site, although it is possible that isolated historical materials may be encountered during subsurface excavation.

Ground-disturbing activity during project construction and decommissioning could result in the inadvertent exposure of historical resources that could be eligible for inclusion on the CRHR. This potentially significant project impact to historic resources would be reduced to a *less-than-significant* level through the implementation of Mitigation Measure CR-1 below.

Mitigation Measure CR-1: Protection of Cultural Resources. *In order to avoid the potential for impacts to historic and prehistoric archaeological resources, the following measures shall be implemented, as necessary, in conjunction with the construction and decommissioning of the Utica Avenue Solar Project:*

- a. Cultural Resources Alert on Project Plans. *The project proponent shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources.*
- b. Pre-Construction Briefing. *The project proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction Cultural Sensitivity Training to construction staff (and also to staff at the time of decommissioning) regarding the discovery of cultural resources and the potential for discovery during ground disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found.*
- c. Stop Work Near any Discovered Cultural Resources. *The project proponent shall retain a professional archaeologist on an “on-call” basis during ground disturbing activity for construction and decommissioning of the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction or decommissioning. Should previously unidentified cultural resources be discovered during construction or decommissioning of the project, the project proponent shall cease work within 100 feet of the resources, and Kings County Community Development Agency (CDA) shall be notified immediately. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under CEQA.*
- d. Mitigation for Discovered Cultural Resources. *If cultural resources are identified, the*

archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System, Southern San Joaquin Valley Information Center. Limited archaeological testing of cultural deposits may be appropriate to determine the horizontal and vertical extent of the resource.

Project redesign may be recommended to avoid the resources and minimize adverse by project activities. If impacts to cultural resources cannot be avoided, they shall be evaluated for their eligibility for listing in the California Register of Historical Resources (i.e., to determine if they qualify as historical or unique archaeological resources under CEQA). If the resource(s) is not eligible, avoidance is not necessary. If the resource(s) is eligible, adverse effects shall be avoided (i.e., preservation in place), or, if avoidance is not feasible, the adverse effects shall be mitigated.

If avoidance is not feasible and the resource will be impacted by the project, the mitigation treatment for archaeological resources eligible for the California Register of Historic Resources is data recovery, recordation and curation. If data recovery excavation is appropriate, the excavation shall be guided by a treatment plan prepared by a professional archaeologist and approved by Kings County CDA prior to data recovery. 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 results and findings of the cultural resources investigation and method of curation or protection of the resources shall be documented in a professional report and submitted to the project applicant, the County of Kings and the Southern San Joaquin Valley Information Center (SSJVI). Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

- e. Native American Monitoring. Prior to any ground disturbance, the project proponent shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during both construction and decommissioning. Tribal participation would be dependent upon the availability and interest of the Tribe.
- f. Disposition of Cultural Resources. Upon coordination with the Kings County Community Development Agency, any pre-historic archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less-than-Significant Impact with Mitigation Incorporated. The Utica Avenue Solar Project site includes no known prehistoric archaeological resources determined to be eligible or potentially eligible for inclusion on the California Register of Historical Resources, or which would meet the definition of “unique archaeological resource” under CEQA.

According to the cultural resources report prepared by Basin Research Associates, there is a low potential for the discovery of significant subsurface cultural materials within the Utica Avenue Solar Project site, although isolated prehistoric finds are possible. Construction operations in areas of native soil could result in the inadvertent exposure of buried prehistoric archaeological materials that could be eligible for inclusion on the CRHR (PRC Section 5024.1) and/or meet the definition of a unique archeological resource as defined in Section 21083.2 of the Public Resources Code (PRC). This potential impact to archaeological resources would be reduced to a *less-than-significant* level through the implementation of Mitigation Measure CR-1 above.

Mitigation: *Implement Mitigation Measure CR-1: Protection of Cultural Resources.*

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-than-Significant Impact with Mitigation Incorporated. According to the cultural resources report by Basin Research Associates, no human burials have been recorded on the project site or immediate vicinity. Although considered unlikely, it is possible that human remains could be buried within the Utica Avenue Solar Project site.

Subsurface excavation for the Utica Avenue Solar Project could potentially result in the disturbance of buried human remains. This potential impact would be reduced to *less-than-significant* levels through implementation of Mitigation Measure CR-2 below.

Mitigation Measure CR-2: Protection of Buried Human Remains. *In order to avoid the potential for impacts to buried human remains, the following measures shall be implemented, as necessary, in conjunction with the construction of each phase of the Utica Avenue Solar Project:*

- a. *Pursuant to State Health and Safety Code Section 7050.5(e) and Public Resources Code Section 5097.98, if human bone or bone of unknown origin is found at any time during on- or off-site construction, all work shall stop in the vicinity of the find and the Kings County Coroner shall be notified immediately. If the remains are determined to be Native American, the Coroner shall notify the California State Native American Heritage Commission (NAHC), who shall identify the person believed to be the Most Likely Descendant (MLD). The project proponent and MLD, with the assistance of the archaeologist, shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Sec. 15064.5(d)). The agreed upon treatment shall address the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours for the MLD to make their wishes known to the landowner after being granted access to the site. If the MLD and the other parties do not agree on the reburial method, the project will follow Public Resources Code Section 5097.98(e) which states that ". . . the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."*

- b. *Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, the Kings County Community Development Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center.*

REFERENCES – CULTURAL RESOURCES

- Basin 2022 Basin Research Associates. 2022. *Cultural Resources Review Report – Utica Avenue Solar Project, Kings County, California*. May.
[Cultural Resources report is kept administratively confidential by Kings County Community Development Agency per Government Code Section 6254, subdivision (r) and Section 6452.10.]

4.6. ENERGY

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Energy Setting

State of California

In 2003, the three key energy agencies in California – the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and the California Power Authority (CPA) jointly adopted an “Energy Action Plan” (EAP) that established goals for California’s energy future and set forth a commitment to achieve these goals through specific actions. Revised and updated in 2005 and 2008, the Plan identifies priorities for meeting the State’s energy needs, including energy efficiency and greater reliance on renewable sources of power.

Energy consumption is closely related to greenhouse gas emissions, so reductions in GHG emissions are tied to reductions energy consumption from non-renewable sources. In an effort to avert the consequences of climate change, the California State Legislature enacted the California Global Warming Solutions Act (AB 32) in 2006. AB 32 established a state goal of reducing GHG emissions to 1990 levels by 2020 (a reduction of approximately 25 percent from forecast emissions levels), and required the California Air Resources Board (CARB) to establish a comprehensive program to implement this goal. In 2016, the legislature passed SB 32 which extended the goals of AB 32 and set a 2030 goal of reducing 2030 emissions by 40 percent from 2020 levels.

One of the key implementation programs under AB 32 is the Renewables Portfolio Standard (RPS) which has undergone several iterations mandating that renewable generation sources comprise an ever increasing share of electrical utilities’ total power generation by certain target dates. Qualifying renewable generation sources include solar, wind, small hydro, geothermal, and biomass. In September 2018, Governor Brown signed SB 100, which increased the required renewables content of electricity generation to 50 percent by 2025 and 60 percent by 2030, and which puts California on the path to implement a zero-carbon electricity grid by 2045.

As of 2020, renewable energy sources, including biomass, geothermal, small-scale hydro, solar, and wind, accounted for an estimated 33 percent of California’s power mix, with utility-scale solar generation accounting for 13.2 percent of the State’s power mix (CEC 2022b). In 2020, PG&E’s power mix included 30.6 percent from renewable sources, with solar accounting for 15.9 percent of the total (PG&E 2021).

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan includes the following objective and policies on energy that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

G. Energy Resources

RC OBJECTIVE G1.3 Conserve energy to lower energy costs and improve air quality.

RC Policy G1.3.1: Encourage developers to be innovative in providing landscaping that modifies microclimates, thus reducing energy consumption.

RC Policy G1.3.3: Participate, to the extent feasible, in local and State programs that strive to reduce the consumption of energy.

RC Policy G1.3.4: Coordinate with local utility providers to provide public education on energy conservation programs.

Environmental Evaluation

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-Significant Impact. The following is a discussion of the potential impacts related to energy consumption in the construction, operational, and decommissioning phases of the Utica Avenue Solar Project.

Construction

The construction of the Utica Avenue Solar Project would involve the short-term consumption of electricity for operation of tools, machinery, and lighting, and consumption of fuels for construction equipment, material truck deliveries, and vehicle trips generated by construction workers traveling to and from the project site. Energy would also be used in the manufacture of the solar modules and associated equipment, although the solar modules and other array components would be recyclable. As required by the CALGreen Code, 65 percent of construction and demolition waste would be diverted from the waste stream, allowing for reuse of these materials and thus saving energy that would otherwise be consumed in extraction, transport and processing of virgin materials (CSBC 2019).

The primary form of energy used during construction is petroleum-based fuels, primarily diesel. Natural gas is not used during construction-related activities, and the relatively small amounts of electricity used for power tools and lighting in building construction would not result in wasteful or

unnecessary electricity demands. Fuel consumption by equipment during construction-related activities was estimated based on construction CO₂ emissions calculated from CalEEMod outputs from the air quality analysis and converted to diesel. The results are shown in Table EN-1.

TABLE EN-1
PROJECT ENERGY CONSUMPTION AND PRODUCTION

Project Phase	Consumption			Annual Production		Consumption as % of Annual Production
	MT CO ₂ e	Fuel Equivalent ¹ (gallons)	MBtu Equivalent ²	MWh/yr	MBtu Equivalent ³	
Construction (total)	195	191,939	26,372	5,409 ⁴	18,456	142.9%
Operation (annual)	12	11,812	1,623			8.7%
Operation (20 years)	240	235,240	32,460			21.0%
Decommissioning (total)	195	191,939	26,372			142.9%
Project Lifetime (construction, operation, decommissioning)	630	619,912	85,204	108,180	369,110	23.1%

Conversion Factors

1. GHG to Fuel: 10.16 kgCO₂e/gal diesel = 0.9843 gal/kgCO₂e X 1,000 kg/MT = 984.3 gal/MT CO₂e
 2. Fuel to Energy: 137,381 Btu/gal / 1,000,000 Btu/MBtu = 0.1374 MBtu/gal
 3. Energy to Electricity: 3,412 Btu/kWh x 1,000 kWh/Mwh = 3,412,000 Btu/MWh / 1,000,000 Btu/MBtu = 3.412 MBtu/MWh
 4. Based on Kings County 2020 average annual generation for PV facilities of 1,803 MWh/MW/yr (CEC 2022).
- Sources: Illingworth & Rodkin 2022; US EIA 2021; US EIA 2022.

As shown in Table EN-1, the total fuel consumption during all phases of on-site and off-site vehicle and equipment usage during construction for the Utica Avenue Solar Project is estimated to be approximately 620,000 gallons; primarily diesel fuel. [Gasoline will likely comprise a minor portion of the overall fuel consumption, mainly for use in passenger vehicles by commuting construction workers. Although it is unknown exactly how much gasoline would be consumed relative to diesel fuel, it is known that gasoline is about 14 percent less carbon-intensive than diesel fuel (i.e., one gallon of diesel emits as much GHG as 1.14 gallons of gasoline)(US EIA 2016). Therefore, the above fuel consumption estimate for project construction represents the worst case.]

The construction fuel consumption total was converted to British Thermal Units (Btu) to allow comparison with project solar energy production, which was converted from MWh/yr to Btus. As shown in Table EN-1, the total energy consumed in project construction is equivalent to about 1.4 times one year’s electricity production at the Utica Avenue Solar Project. As also shown, the total lifetime energy use of the Utica Avenue Solar Project (including construction, decommissioning, and 20 years of operation) is approximately 23 percent of total energy production over the project’s useful life. Thus the overall energy efficiency of the Utica Avenue Solar Project would be approximately 77 percent over the project’s lifetime. By comparison, the energy efficiency of the most efficient combined-cycle natural gas fueled power plant in California is approximately 47 percent, which means that 53 percent of the energy input in the form of natural gas is wasted during electricity generation (CEC 2020c, p. 10). However, the 47 percent energy efficiency for natural gas plants does not take into account the energy consumed in plant construction or

decommissioning. If energy inputs for construction and decommissioning of the solar facility are ignored to allow for a more direct comparison, the 8.7 percent annual energy input vs. output for the solar facility would be 6 times more energy efficient than the most efficient natural gas-fueled power plant with energy input vs. output of 53 percent.

Additionally, the efficiency of fuel use during construction the Utica Avenue Solar Project would be increased through implementation of the San Joaquin Valley Air Pollution Control District's requirement for clean fleet construction equipment to minimize emissions under Rule 9510 (ISR) which would also indirectly result in greater fuel efficiency. Unnecessary idling of construction equipment and vehicles would be avoided through compliance with California Code of Regulations (CCR) Section 2485, which requires that non-essential idling for all diesel-fueled vehicles not exceed 5 minutes at any given location. The energy efficiency of fuel consumed by commuting workers and delivery vehicles would be ensured through federal fuel efficiency standards. For construction haul trucks, the State's regulation to reduce diesel emissions through replacement of older trucks with newer models with diesel emissions controls would also result in greater fuel efficiency for long-haul trucks. In addition, the project would be constructed in accordance with the California Building Standards Code and Energy Efficiency Standards, as enforced through plan review and site inspections by the County Building Official. Given that the project would comply with the above rules, regulations, and programs to maximize energy efficiency in vehicles and equipment used in construction, it is concluded that project construction would not result in the inefficient, wasteful, or unnecessary use of energy resources.

Project Operation

The operation of the Utica Avenue Solar Facility would not be energy-intensive since it would be operated remotely and would require occasional visits by operations personnel for inspections, maintenance and repair activities. Thus the project would involve relatively small amounts of fuel consumption for staff travel to and from the site, and for fueling maintenance vehicles and equipment. Electricity consumption for project lighting and operation would also be very light.

Decommissioning

At the end of the useful life of the Utica Solar Facility in 20 years, it is expected that the facility would be decommissioned over a period of three months. It is expected that the equipment and vehicles utilized in decommissioning would be subject to more stringent fuel economy requirements than those currently applicable, and that energy consumption would be lower than the estimate shown in Table EN-1, which assumes current fuel-efficiency rates. Therefore, the project's decommissioning energy impacts would be less than significant.

Summary

The primary purpose of the Utica Avenue Solar Project is to generate renewable solar energy in order to provide for the reduced statewide reliance on non-renewable fossil fueled generation. The operation of the solar facility would allow for the decommissioning of equivalent generation from a natural gas fired power plant. As shown in Table EN-1, the annual energy consumed for project operation would be equivalent to approximately 8.7 percent of annual energy production at the Utica Avenue Solar Project. In other words, the operating energy efficiency of the solar facility would be about 91.3 percent, which is extremely efficient compared to fossil-fueled power plants, of which even the most efficient plants achieve an energy efficiency of 47 percent, or substantially less

efficient than solar. Thus the project consumption of energy would not be wasteful or inefficient, and the project would result in a substantial offset of non-renewable fossil fuel generation with renewable solar generation. Therefore, the Utica Avenue Solar Project would not result in wasteful, inefficient, or unnecessary use of energy, and the impact to energy resources would be *less than significant*.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. At the local level, there are several policies contained in the *2035 Kings County General Plan* which directly address renewable energy or energy efficiency. In the Resource Conservation Element, RC Policies G1.2.1 through G1.2.6 promote the use of renewable energy sources such as solar, wind, and biomass projects, and provide guidance for their appropriate placement and project review. RC Policies G1.3.1 through G1.3.4 address energy conservation and project design measures for reducing energy demand (Kings County 2010b). The Utica Avenue Solar Project would advance the implementation of these policies by providing a new source of renewable energy.

At the State level, there are numerous plans, policies, and regulations that directly and indirectly address renewable energy and energy efficiency. For energy efficiency in building construction, the applicable energy conservation requirements are contained in the California Building Standards Code and Energy Efficiency Standards, which have been incorporated into the Kings County Building Code. The Utica Avenue Solar Project would incorporate the applicable energy efficiency standards in its construction, as enforced by the County Building Official.

The State’s primary mandate for renewable energy is embodied by AB 32 – The California Global Warming Solutions Act, which is implemented through its Scoping Plan. The 2017 Climate Change Scoping Plan adopted by the California Air Resources Board outlines the strategies for achieving the emissions reduction target mandated in AB 32. One of the key strategies is the Renewables Portfolio Standard (RPS), which now requires all electric utilities in California to include a minimum of 60 percent renewable generation sources in their overall energy mix by 2030, and establishes a target of 100 percent renewables by 2045. As a solar photovoltaic generating facility, the Utica Avenue Solar Project will help increase the proportion of renewables in the statewide energy portfolio and will also generate far more clean energy than it consumes, thereby furthering the implementation of RPS by the target years instead of obstructing its implementation. The addition of the project’s solar generation to the state’s electrical supply will help facilitate the retirement of existing older fossil-fueled generation plants, thereby avoiding or offsetting those sources of GHG emissions. Therefore, the Utica Avenue Solar Project would directly contribute to the achievement of the State’s renewable energy objectives, and thus would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and there would be *no impact* in this regard.

REFERENCES – ENERGY

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4.7. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect 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 checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Geologic Setting

Site Geology

The Utica Avenue Solar Project site is located in the Great Valley Geomorphic Province, a topographic and structural basin bounded on the east by the Sierra Nevada and on the west by the Coast Ranges. The Sierra Nevada are part of a fault block which dips gently to the southwest which forms the bedrock beneath the valley. This basement complex is composed of igneous and metamorphic rocks of pre-Tertiary age. These are in turn overlain by Quaternary period alluvium, including material from the Pleistocene Epoch (about 2.6 Million to about 11,700 years ago), which is covered by layer of Holocene Epoch (about 11,700 years ago to present) material of varying thickness.

Tectonics and Seismicity

There are no Alquist-Priolo Earthquake Fault Zones mapped in the vicinity of the Utica Avenue Solar Project site (CGS 2014b). However, there are several active faults in the Diablo Range to the west, including the San Andreas Fault Zone, the Nunez Fault Zone, and the Great Valley Fault System. (An

“active fault” is defined as a fault that has had surface displacement within the Holocene age, i.e., within the last 11,700 years.) The nearest segment of the San Andreas fault is located about 27 miles southwest of the project site and it is estimated to be capable of producing a magnitude 7.7 earthquake along the nearest segments to the project area. The Great Valley Fault System, which runs parallel to and east of the San Andreas Fault Zone, is composed of blind thrust faults, which do not intersect the ground surface but can cause significant shaking and ground deformation.

The most recent large earthquake near Kings County was the Kettleman Hills earthquake of magnitude 6.1 in August 1985, whose epicenter was located four miles from the Kings County border just north of Avenal. It was preceded by the 1982 New Idria earthquake (M 5.4), approximately 65 miles northwest of the project site, and the May 1983 Coalinga earthquake (M 6.5). The Coalinga earthquake occurred in Nunez Fault Zone, a 3-mile long fault zone located 2 miles northwest of Coalinga. The Nunez fault is a designated Alquist-Priolo Earthquake Fault Zone and is located about 38 miles northwest of the project site at its nearest point. All three of these earthquake incidents produced low level ground shaking and low local magnitude in Kings County (Kings County 2010e).

Geomorphology and Soils

The parent materials of the soils in the project area originate from marine sediments of the Coast Ranges formed millions of years ago when these lands were on the seabed. These formations, which primarily consist of fine-grained shales, were uplifted over time, and were then subject to erosional forces which transported these sediments downstream to the west side of the San Joaquin Valley where they formed large alluvial fans. The project site is on a lower alluvial fan terrace near the margin of the historic Tulare Lake bed and is comprised of older alluvium characterized by deep sandy soils (GGS 2022).

NRCS Soil Survey

The most recent comprehensive soil survey of Kings County was completed in 1985 by the National Resources Conservation Service (NRCS), formerly the Soil Conservation Service (SCS). According to the Kings County Soil Survey, the soils on the Utica Avenue Solar Project site consist largely of Milham sandy loam (91.5%), with a small 2.5-acre area of Rambla loamy sand (8.5%) along the eastern and northern margins of the project site. The Milham soil is described as very deep and moderately well-drained, saline-alkali soils. The shrink-swell (expansion) potential of this soil is low to moderate, runoff is slow, permeability is slow, and hazard to erosion is slight, and wind erodibility is moderate. The Rambla soil is described as very deep and saline-alkaline. The expansion potential of this soil is low, runoff is slow, permeability is very slow, hazard to erosion is slight, and wind erodibility is low. The saline-alkaline condition of the project soils causes high corrosivity to steel and concrete (NRCS 1986).

Paleontological Resources

Paleontological resources comprise fossils – the remains or traces of once-living organisms preserved in sedimentary deposits – together with the geologic context in which they occur. Fossils are scientifically important as they provide the only available direct evidence of the anatomy, geographic distribution, and paleoecology of organisms of the distant past. Significant paleontological resources may include vertebrate fossils and their associated taphonomic (fossilization) and environmental indicators; invertebrate fossils; and/or plant fossils.

The following evaluation of paleontological potential at the Utica Avenue Solar Project site is based on the Paleontological Resources Assessment prepared by PaleoSolutions in March 2022. (The paleontological report is kept administratively confidential in accordance with State law.)

The surface of the project area consists of two geologic units: recent dune sand and Pleistocene-aged non-marine sediments likely attributable to the Tulare Formation. These geologic units range in age from the Recent to the latest Pliocene, 2.5 million years ago (Ma) and are described below.

Dune sand (Qs). Dune sand is mapped at the surface across the northern half of the project site. These sediments are young in age, dating to recent times, and are too young to include paleontological resources. However, these sediments likely overlie older alluvium and the Tulare Formation, both of which have high paleontological potential (see below). The exact depth at which the high sensitivity sediments are present beneath the dune sand is unknown at this time; however, given the proximity of the surficial exposures of older alluvium in the southern portion of the project site, it may occur at quite shallow depths.

Pleistocene non-marine sediments (Qc). Pleistocene non-marine sediments are mapped at the surface across the southern half of the project site and likely directly underlie the dune sand mapped in the northern half of the site. These sediments are referred to as older alluvium and consist of alluvial fan deposits composed of silt, sand, and gravel eroded from the Kettleman Hills and other highlands to the west. These sediments are likely underlain by the Tulare Formation (see below) across the project site.

Pleistocene non-marine sediments were deposited during the Pleistocene, which ranges from 11,700 to 2.58 Ma, making this unit old enough to preserve paleontological resources. There are three fossil localities in the vicinity of the Tulare Dry Lakebed in Kings County from Pleistocene-aged alluvial sediments. The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, bison, deer, and small mammals, but other taxa, including horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported, as well as reptiles such as frogs, salamanders, and snakes and birds. Given the extensive record of significant fossils recovered from Pleistocene-aged sediments, this unit is considered to have high paleontological potential.

Tulare Formation (QP). The Tulare Formation crops out around the base of the Kettleman Hills, approximately 4 miles west of the Project area. The Tulare Formation dates from the Pleistocene to the latest Pliocene (0.6-2.5 Ma) and consists of alternating beds of poorly consolidated sand and gravel. The Tulare Formation is known to preserve significant paleontological resources across the San Joaquin Valley including the Kettleman Hills just to the west of the Project area. The Tulare Formation has yielded additional significant fossils, such as fish, freshwater dolphins, birds, tortoises, and invertebrates like freshwater clams and snails. Given the extensive record of significant fossil localities in the Tulare Formation, some in the vicinity of the project site, the Tulare Formation is considered to have high paleontological potential.

Regulatory Context

State of California

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces. Cities and counties must regulate certain development projects within the zones, including the preparation of geologic investigations in order to demonstrate that development sites are not threatened by future surface displacement. The nearest Alquist-Priolo Earthquake Fault Zone that is mapped in the vicinity is the San Andreas Fault Zone located approximately 27 miles southwest of the Utica Avenue Solar Project at its nearest point.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act is intended to protect the public from the effects of strong groundshaking, liquefaction, landslides, or other ground failure/hazards caused by earthquakes. This act requires the State Geologist to delineate seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. There are no Seismic Hazard Maps that include the Utica Avenue Solar Project site.

California Building Code

The 2019 California Building Code (CBC) is Part 2 of the California Building Standards Code (CBSC) which is codified as Title 24 of the California Code of Regulations (CCR). The CBC is based on the 2018 International Building Code and includes additional provisions and modifications specific to California. The CBC pertains to building design and construction and is separate from other parts of the CBSC such as the electrical code, plumbing code, mechanical code, fire code, energy code, etc. In terms of providing seismic safety, the primary objective of the CBC standards is to ensure public safety and minimize property damage in the event of an earthquake. The 2019 version of the California Building Standards Code assigns a seismic design category (SDC) to each structure. The SDC is assigned as a means of capturing both the seismic hazard, in terms of mapped acceleration parameters (spectral values), site class (defining the soil profile), and the occupancy category (based on its importance or hazardous material contents). The SDC affects design and detailing requirements as well as the structural system that may be used and its height.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan includes the following goals, objectives and policies related to geology, soils, and paleontology that are relevant to the Utica Avenue Solar Project:

Health and Safety Element

A. Natural Hazards

- | | |
|-------------------|---|
| HS GOAL A2 | Minimize loss of life and personal property caused by geologic hazards. |
| HS OBJECTIVE A2.1 | Regulate new construction to achieve acceptable levels of risk posed by geologic hazards. |
| HS Policy A2.1.4: | Review all development proposals to determine whether a geotechnical soils report is required for new construction. |
| HS Policy A2.1.5: | Consider the environmental review process for land use projects' seismic hazards, including subsidence, liquefaction, flooding, local soils, and geologic conditions. |

Resource Conservation Element

B. Soil Resources

- | | |
|-------------------|---|
| RC GOAL C1 | Encourage the conservation of soil resources that are critical to the long-term protection and sustainability of the County's agricultural productivity and economy. |
| RC OBJECTIVE C2.2 | Ensure that land use decisions are compatible with the control of soil erosion and the maintenance of soil quality. |
| RC Policy A2.2.1: | Require erosion control measures for any development involving construction or grading near waterways, or on land with slopes over ten percent. Require that improvements such as roads and driveways be designed to retain natural vegetation and topography to the extent feasible. |
| RC Policy A2.2.2: | Continue to require the application of construction related erosion control measures, including Stormwater Pollution Protection Plans (SWPPP) for all new construction. |

Kings County has no policies or regulations which specifically address paleontological resources.

Kings County Code of Ordinances

Development Code

The Land Subdivisions are regulated by Article 23 of the Kings County Development Code. The Development Code requires that a preliminary soils report be prepared by a registered civil engineer for all subdivisions. If the preliminary soils report indicates the presence of critically expansive soils or other soil problems, a detailed soils investigation is required which recommends corrective action for any soils problems which are likely to result in structural damage. Article 23 of the Development Code provides that one of its objectives is to ensure that land developments incorporate proper grading and erosion control, and that the Public Works Director shall be responsible for evaluating the planned method of erosion and sedimentation control.

Kings County Building Code

The County Code of Ordinances, at Section 5-36, adopts and incorporates by reference the 2013 Edition of the California Building Code (CBC) as the Kings County Building Code, which is applicable to all building construction in Kings County. The CBC is described earlier in this section.

Environmental Evaluation

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact. The Utica Avenue Solar Project site is not included in an earthquake fault zone designated by the California Geological Survey pursuant to the Alquist-Priolo Act. In addition, the Health and Safety Element of the 2035 Kings County General Plan states “[t]he County has no known major fault systems within its territory” (Kings County 2010e). Since there are no known earthquake faults on or near the project site, there are *no impacts* associated with the Utica Avenue Solar Project relative to surface rupture of an earthquake fault.

ii) Strong seismic ground shaking?

Less-than-Significant Impact. The project area is located in one of the more seismically active areas of California, with several major faults within a 50-mile radius capable of generating maximum credible earthquakes with magnitudes of 6.5 or greater. Within the Utica Avenue Solar Project site, the intensity of ground shaking (or Peak Ground Acceleration – PGA) during an earthquake is estimated to be 0.460g (g = force of gravity)(CGS 2008). This represents the intensity of ground motion with a 2 percent chance of being exceeded in 50 years, or the intensity of ground shaking anticipated once in 2,500 years (CGS 2016). This level of ground acceleration is perceived as severe shaking and is associated with moderate to heavy damage potential.

Groundshaking resulting from a large or moderate earthquake centered on faults in the western foothills would cause dynamic loading resulting in stress to structures at the project site. However, structures designed and built in accordance with the California Building Code are expected to respond well. The CBC structural design standards provide for high degree of seismic strength and resistance to lateral forces (strong shaking) in order to minimize risks to public safety and damage to property. The California Building Code has been adopted as the Kings County Building Code, which is implemented and enforced by the Kings County Building Official and Building Inspectors through building permit reviews, approvals, inspections, and final sign offs.

The following passage from page 8 of the “Health and Safety Element” of the *2035 Kings County General Plan* is relevant to this discussion:

“Damage and injury resulting from geologic hazards can be reduced to acceptable levels through zoning and building permit review procedures and construction standards. New construction conforming to the standards of the California Building Code (CBC) will provide adequate protection.”

In summary, the potentially significant impacts due to groundshaking at the Utica Avenue Solar Project site would be reduced to *less-than-significant* levels through implementation of the applicable seismic design standards of the California Building Code, as enforced by the Kings County Building Division.

iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Seismic ground failures can include liquefaction and seismically-induced differential settlement, as discussed below.

Soil liquefaction is the phenomenon in which a saturated, cohesionless soil loses structural strength during an earthquake as a result of induced shearing strains, which essentially transforms the soil to a liquid state resulting in ground failure or surface deformation. Liquefaction can result in total and differential settlement of structures. Conditions required for liquefaction typically include fine, well-sorted, loose sandy soil, high groundwater, higher intensity earthquakes, and particularly long duration of ground shaking.

No regulatory mapping of liquefaction zones has been prepared by the California Geological Survey for the project area, with the nearest such mapping completed for Santa Clara County (CGS 2015b). The sandy loamy soils of the project site are considered to be susceptible to liquefaction. Groundwater levels in the project soils are reported to be greater than 6 feet below the ground surface (NRCS 1986). While there is some potential for liquefaction at the project site, any potential impacts to project structures would be addressed in the geotechnical engineering report required by Kings County, which would include detailed soil engineering recommendations to mitigate the potential for liquefaction.

In addition, the “Health and Safety Element” of the *2035 Kings County General Plan*, it states “[t]he risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal” (Kings County 2010e). The potential impacts to the Utica Avenue Solar Project due to liquefaction would be *less than significant*.

Seismic settlement can occur when saturated and unsaturated granular soils become rearranged during groundshaking resulting in a volume reduction and surface deformation. The magnitude of seismic settlement is a function of the relative density of the soil and the magnitude of cyclic shear stress caused by seismic ground motion. Seismic settlement has the greatest potential to occur in locations where loose granular materials such as sandy soils are present above the groundwater table. The relatively sandy loam soils that cover the project site are would be associated with potential for surface deformation resulting from seismic settlement. However, the potential for seismic settlement would be addressed through geotechnical studies which would identify soil engineering specifications to ensure that foundations and footings would be designed meet applicable standards to prevent settlements. As such, the potential impacts to the Utica Avenue Solar Project due to seismic settlement would be *less than significant*.

iv) Landslides?

No Impact. No regulatory mapping of landslide zones has been prepared by the California Geological Survey for the project area, with the nearest such mapping completed for Santa Clara County (CGS 2015a). The project area is not mapped as lying within a landslide hazard area by USGS landslide mapping which shows the nearest landslide areas in the foothills of the Diablo Range to the west (USGS 1997). The nearly level terrain of project area has a very low potential for landslides. In addition, the “Health and Safety Element” of the *2035 Kings County General Plan* indicates that project area is defined has having a “low” susceptibility to landslides (Kings County 2010e). As such, the Utica Avenue Solar Project is associated with *no impact* relative to landslides.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. All of the soils on the project site have slow runoff potential with a correspondingly low hazard of water erosion (NRCS 1986). However, the seasonal high wind conditions (typically from March to June) results in high potential for wind erosion within the project area (Kings County 2010b).

Grading, excavation, vegetation removal, and ground disturbance during construction would expose the soil to potential erosion from wind and rain. As described in Section 2.2. *Project Description*, existing vegetation within a given area of the project would only be removed when that area is scheduled for installation of solar arrays. Existing topsoil would not be removed, and once the installation of solar arrays in a given area is complete, the affected area would be revegetated with a native seed mix. In order to prevent erosion caused by stormwater runoff, soil stabilization and erosion control measures would be employed during grading and construction of each increment of solar development, as specified in Mitigation Measure HYD-1 (see Section 4.10. *Hydrology and Water Quality*, item ‘c’).

The specific erosion controls to be implemented at the project site will be specified in the Storm Water Pollution Prevention Plan (SWPPP), as required for all projects over 1 acre in size by the State Water Resources Control Board’s Construction Stormwater General Permit. The SWPPP for the project will specify Best Management Practices (BMPs) such as stormwater runoff control and hazardous waste management measures, and will include monitoring and reporting procedures.

Typical erosion control measures may include: scheduling construction activities to avoid forecasted rain events and implementing soil stabilization measures prior to rain events; designating restricted entry zones; sediment tracking control measures such as crushed stone or riffle metal plates at construction entrances; silt fencing along work areas adjacent to ditches and canals; and soil stabilization such as mulching or revegetation once activities in an area are complete or suspended. Specific BMPs for the Utica Avenue Solar Project will be determined during the final engineering design stages for the project. The project SWPPP will be prepared by a certified Qualified SWPPP Developer (QSD), who will ensure that the BMPs in the project-specific SWPPP will fully comply with the requirements of the General Permit. Regional Board staff is responsible for inspections of construction sites to ensure the effectiveness of BMPs specified in the SWPPP.

With the implementation of the measures specified in the SWPPP, the potential for the Utica Avenue Solar Project to result in erosion impacts would be reduced to *less-than-significant* levels.

[Note: The potential erosion and siltation impacts are discussed in greater detail in section 4.10. *Hydrology and Water Quality*.]

c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less-than-Significant Impact. As discussed above, the project site is not susceptible to landslides, liquefaction, or seismic settlement. The potential for lateral spreading and land subsidence is discussed below.

Lateral spreading (or liquefaction-induced lateral spreading) can occur with seismic ground shaking on slopes where saturated soils liquefy and flow toward the open slope face. The project site is relatively flat and does not include significant slopes with the exception of the channel banks of the former irrigation canal that runs across the northwest corner of the site. Although the sandy loam soils of the project site are susceptible to liquefaction, the groundwater depth at the project site is greater than 6 feet below the ground surface, so the potential for liquefaction is low. The bottom of the on-site channel is approximately 6 feet deep, so the conditions necessary for liquefaction and channel slope failure to occur (loose soils and high groundwater) are not present and the potential for lateral spreading would thus be low. In summary, the potential impact from lateral spreading on or near the Utica Avenue Solar Project site would be *less than significant*.

Ground Subsidence is typically caused when overdrafts of a groundwater basin reduces the upward hydraulic pressure that supports the overlying land surface, resulting in consolidation/settlement of the underlying soils. Subsidence has the potential to damage local, state, and federal infrastructure, including reducing the freeboard and flow capacity of the California Aqueduct and irrigation delivery canals and pipelines, as well as causing structural damage to bridges, roads, flood control facilities and other structures. Large areas of the San Joaquin Valley have been subject to subsidence due to overpumping of groundwater from many agricultural wells. The project area has been subject to minimal land subsidence (i.e., 0 to 0.5 feet between 2007 and 2011) compared to subsidence of up to 4.0 feet in eastern Kings and western Tulare counties during the same period (CWF 2014). As discussed in Section 4.10. *Hydrology and Water Quality*, groundwater pumping is not conducted in the project area due to low yields and poor quality of the groundwater. The Utica Avenue Solar

Project may rely on groundwater sources from elsewhere in the region, but the project water demand would be so low (5.9 acre-feet during construction and 0.3 acre-feet per year during project operation). In comparison, average irrigation demand for crops in the San Joaquin Valley is approximately 2.5 acre-feet per acre per year. Thus, even if all project water supplies were provided by groundwater, the minimal water volumes required by the project would not have a discernable effect on groundwater levels. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of land subsidence.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Less-than-Significant Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell during seasonal wetting and drying cycles. The ability of clayey soil to change volume with variations in moisture content can result in uplift or cracking of foundation elements or other rigid structures such as slabs-on-grade, rigid pavements, or other slabs or hardscape founded on these soils. The sandy loamy soils covering the Utica Avenue Solar Project site have a low to moderate shrink-swell potential (NRCS 1986). As such, there is a low potential for damage to project pads and foundations as a result of soils expansion beneath these structures. As required by Kings County, the potential for soils expansion would be further evaluated in geotechnical studies which would identify any soil engineering specifications required to ensure that foundations and footings would be designed meet applicable standards to prevent settlements. As such, the potential impacts to the Utica Avenue Solar Project due to expansive soils would be *less than significant*.

e) *Would the project 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 Utica Avenue Solar Project would not have permanent on-site staff and would not include an Operations and Maintenance (O&M) building. As such, Kings County would not require the project to include a septic tank and leachfield system to treat and dispose of wastewater. To serve the sanitary needs of personnel who would occasionally visit the site to conduct inspections, maintenance and repairs, the project would have portable chemical toilets which would be serviced by an outside contractor. Therefore, Utica Avenue Solar Project would have *no impact* in terms of capability of the site soils to adequately support septic systems.

f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less-than-Significant Impact with Mitigation Incorporated. As discussed in the Geologic Setting section above, the surface material on northern half of the project site is dune sand (Qs) which is too young to include paleontological resources. However, these sediments are underlain by older Pleistocene alluvium (Qc) which has a high paleontological potential. It is unclear exactly where the transition from low potential dune sand to high potential Pleistocene-aged deposits occurs in the subsurface. In this area, shallow excavations of less than approximately 3 feet below ground surface

(bgs) are unlikely to encounter paleontological resources, while excavations greater than approximately 5 feet bgs are likely to extend into sediments with high paleontological potential.

The surface material in the southern half of the project site is mapped as Pleistocene non-marine sediments (Qc) which are old enough to preserve paleontological resources. Therefore, shallow excavations in the southern portion of the site have the potential to make contact with paleontological resources. The potential impact to paleontological resources would be reduced to a *less-than-significant* level through implementation of Mitigation Measure GEO-1 below.

There are no unique geologic features which could be adversely affected by the Utica Avenue Solar Project.

Mitigation Measure GEO-1: Protection of Paleontological Resources. *In order to avoid the potential for impacts to paleontological resources, the following measures shall be implemented, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:*

Preparation of PRMMP. *Prior to commencement of any grading on the site, a professional paleontologist shall be retained to prepare a Paleontological Monitoring and Mitigation Plan (PMMP). The PMMP shall include provisions for paleontological monitoring of earthwork and ground disturbing activities into undisturbed geologic units with high paleontological potential to be conducted by a paleontological monitor meeting industry standards. The PMMP should also include provisions for a Worker’s Environmental Awareness Program (WEAP) training that communicates requirements and procedures for the inadvertent discovery of paleontological resources during construction, to be delivered by the paleontological monitor to the construction crew prior to the onset of ground disturbance.*

a. **Monitoring for Fossils.** *Since the project site includes two distinct geological surface deposits with different levels of sensitivity for paleontological resources, the monitoring program provides for different monitoring procedures for each, as follows:*

Northern Portion of Project Site. *The surface material in northern half of the project site is mapped as composed of dune sands (Qs) which have a low paleontological potential, but are underlain by older Pleistocene nonmarine sediments (Qc) with a high paleontological potential. Within this area, excavations less than 3 feet deep do not require monitoring; excavations between 3 and 5 feet deep shall be spot checked by a professional paleontologist; and excavations exceeding a depth of 5 feet shall be subject to full-time monitoring by a professional paleontologist. If the deposits mapped in this area are found by the paleontological monitor to be not conducive to fossil preservation, the monitoring program in this area should be reduced or suspended as recommended by the paleontologist in consultation with the Kings County Community Development Agency (CDA).*

Southern Portion of Project Site. *The surface material in the southern half of the project site area is mapped as composed of Pleistocene nonmarine sediments (Qc) which have a high paleontological potential. Within this area, all ground disturbance shall be subject to full-time monitoring by a professional paleontologist. If the deposits mapped in this area are found by the paleontological monitor to be not conducive to fossil preservation, the monitoring program in this area should be reduced or suspended as recommended*

by the paleontologist in consultation with the Kings County Community Development Agency (CDA). If it is determined that only sediments that are not conducive to fossil preservation are disturbed by excavation, the monitoring program should be reduced or suspended as recommended by the paleontologist and in consultation with the Kings County CDA.

- b. *Work Stoppage upon Discovery of Fossils.* If a potential paleontological resource is identified during grading, excavation, and construction activities at the project site, all work within 50 feet of the find shall cease, and work within this exclusion zone shall not recommence until the project paleontologist can assess the find and, if significant, salvage the fossil for laboratory preparation and curation at an accredited institution, such as the Natural History Museum of Los Angeles County. Treatment of any significant paleontological resources shall be undertaken in consultation with the Kings County CDA.

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4.8. GREENHOUSE GAS EMISSIONS

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Setting

The accumulation of greenhouse gases (GHGs) in the atmosphere has been determined to be a causative factor in climate change. The release of greenhouse gases creates a layer of gases around the earth which allows sunlight to pass through, but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels where they are kept in balance by natural processes such as carbon absorption by forests and oceans. The overabundance of GHGs in the atmosphere has increased the average temperature of the atmosphere near the earth’s surface and resulted in significant changes in global climate patterns. Impacts of global warming include a rising sea levels, reductions in Sierra snowpack, increase in extreme weather events, increased risk of large wildfires, and adverse changes to marine and terrestrial ecosystems.

Some GHGs are naturally occurring and are emitted through natural processes, like organic decay, while others are emitted solely from human activities. The predominant source of non-natural GHG emissions is the use of fossil fuels which produces carbon dioxide (CO₂) as a byproduct of combustion. Other GHGs include methane (CH₄), nitrous oxide (N₂O), hydroflourocarbons, perfluorocarbons, and sulfur hexafluoride. Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. The most persistent greenhouse gases have a stronger “Global Warming Potential” (GWP) than CO₂. High GWP gases include: CH₄ (methane) which has a GWP over 25 times greater than CO₂; and N₂O (nitrous oxide) which has a GWP which is 298 times greater than CO₂. The application of these ratios for the various greenhouse gases allows all GHG emissions to be converted to CO₂ equivalents (CO₂e), providing for an accurate estimate of aggregate greenhouse effect.

Regulatory Context

State of California

In an effort to avert the consequences of climate change, the California State Legislature enacted the California Global Warming Solutions Act (AB 32) in 2006. AB 32 established a state goal of reducing GHG emissions to 1990 levels by 2020 (a reduction of approximately 25 percent from forecast emissions

levels for 2020), and required the California Air Resources Board (CARB) to establish a comprehensive program to implement this goal. In 2016, the legislature passed SB 32 which extended the goals of AB 32 and set a 2030 goal of reducing 2030 emissions by 40 percent from 2020 levels.

One of the key implementation programs under AB 32 is the Renewables Portfolio Standard (RPS) which has undergone several iterations mandating that renewable generation sources comprise an ever increasing share of electrical utilities' total power generation by certain target dates. Qualifying renewable generation sources include solar, wind, small hydro, geothermal, and biomass. In September 2018, Governor Brown signed SB 100, which increased the required renewables content of electricity generation to 50 percent by 2025 and 60 percent by 2030, and which puts California on the path to implement a zero-carbon electricity grid by 2045.

San Joaquin Valley Air Pollution Control District

Under its mandate to provide local agencies with assistance in complying with CEQA in climate change matters, SJVAPCD has developed *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects under CEQA*. As a general principal to be applied in determining whether a proposed project would be deemed to have a less-than-significant impact on global climate change, the SJVAPC Guidance states that a project must be determined to have reduced or mitigated GHG emissions by 29 percent relative to Business-As-Usual conditions. Under the guidance, a project that meets this emissions reduction target is considered to meet the 29 percent State-wide GHG emission reduction target established in CARB's Scoping Plan for AB 32 implementation (SJVAPCD 2009). However, the use of the Air District's 29 percent reduction metric was substantially limited by the 2015 Newhall Ranch decision (*Center for Biological Diversity v. California Department of Fish and Wildlife*). In the Newhall Ranch decision, the appellate court held that while the 29 percent reduction is the statewide goal under AB 32, there is no substantial evidence to show that a nexus exists between the statewide goal and the percent reduction that a specific land use project would need to achieve in order to be consistent with the goals of AB 32. Therefore, if specific percentage reduction targets are to be applied, they must be demonstrably applicable to the land use type proposed.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan includes the following goal, objective, and policies related to greenhouse gas emissions that are relevant to the Utica Avenue Solar Project.

Air Quality Element

C. Air Quality Management

AQ GOAL C1 Use Air Quality Assessment and Mitigation programs and resources of the SJVAPCD and other agencies to minimize air pollution, related public health effects, and potential climate change impacts within the County.

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 C1.1.2: Assess and mitigate project greenhouse gas/climate change impacts using analysis methods and significance thresholds as defined or recommended by the SJVAPCD, KCAG or California Air Resources Board (ARB) depending on the type of project involved.
- 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 Policy C1.1.5: Assess and reduce the air quality and potential climate change impacts of new development projects that may be insignificant by themselves but, taken together, may be cumulatively significant for the County as a whole.

G. Climate Change

- AQ GOAL G1 Reduce Kings County’s proportionate contribution of greenhouse gas 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 greenhouse gas emission reduction targets consistent with the County’s proportionate fair share as may be allocated by ARB and KCAG.
- AQ Policy G1.1.1: As recommended in ARB’s Climate Change Adopted Scoping Plan (December 2008), the County establishes an initial goal of reducing greenhouse gas emissions from its internal governmental operations and land use activities within its authority to be consistent with ARB’s adopted reduction targets for the year 2020. The County will also work with KCAG to ensure that it achieves its proportionate fair share reduction in greenhouse gas emissions as may be identified under the provisions of SB 375 (2008 Chapter 728) for any projects or activities requiring approval from KCAG.

Environmental Evaluation

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

Less-than-Significant Impact. The Utica Avenue Solar Project would generate greenhouse gas (GHG) emissions through direct consumption of fossil fuels, primarily related to construction, traffic generation, facility maintenance, and decommissioning. The GHG emissions resulting from project construction, operation, and decommissioning were estimated by Illingworth & Rodkin using the CalEEMod model (see Appendix A of this document). The estimated emissions for the Utica Avenue Solar Project are presented in Table GHG-1. As shown in the table, annual average project GHG

emissions would be the equivalent of approximately 32 Metric Tons per year. The operation of solar facilities results in very low GHG emissions, given that the operational activities mainly consist of incidental maintenance. As such, the emissions from the initial construction activity and the post-project decommissioning activities are amortized over the anticipated 20-year life of the project and added to operational emissions to yield annual average GHG emissions from solar projects, as shown in GHG-1.

TABLE GHG-1
ESTIMATED PROJECT GREENHOUSE GAS EMISSIONS

Project	Construction and Decommissioning Emissions (MTCO ₂ e) ¹			Annual Emissions (MTCO ₂ e)		
	Construction Emissions (Total)	Decommissioning Emissions (Total) ²	Total Construction/Decommissioning Emissions	Construction/Decommissioning (Amortized) ³	Project Operation	Total Annual Emissions
Utica Avenue Solar	195	195	390	20	12	32

¹ MTCO₂e = Metric Tons CO₂ Equivalent

² Decommissioning emissions would likely be lower than construction emissions, but are assumed to be same for purposes of this analysis.

³ Construction and decommissioning emissions are amortized over the 20 year life of the project.

Source: Illingworth & Rodkin 2022.

Kings County has not adopted its own significance thresholds for GHG emissions. However, CEQA allows lead agencies to rely on thresholds adopted or recommended by other agencies or recommended by experts (CEQA Guidelines Section 15064.7). As noted under ‘Regulatory Context’ above, the validity of the SJVAPCD guidance on GHG thresholds has been cast into doubt by the 2015 Newhall Ranch appellate court decision. Thus, instead of applying percentage reduction targets to determine the significance of GHG emissions, per the SJVAPCD guidance, most California Air Districts utilize a mass emissions threshold, also known as a “bright-line” significance threshold which is expressed in terms of tons of annual emissions. Both the Bay Area Air Quality Management District (BAAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have adopted an emissions rate of 1,100 MTCO₂e/yr as the threshold of significance for defining GHG impacts for individual development projects under CEQA (BAAQMD 2017, SMAQMD 2020). In addition, the South Coast Air Quality Management District (SCAQMD) and the San Luis Obispo County Air Pollution Control District (SLOCAPCD) have established a bright-line screening threshold of 10,000 MTCO₂e/yr for industrial projects, and SCAQMD’s threshold specifically allows for amortization of construction emissions over 30 years, to be combined with annual operational emissions to determine total annual average GHG emissions (SCAQMD 2008, SLOCAPCD 2012). Also notable are the early recommendations by the California Air Pollution Control Officers Association (CAPCOA), which suggested a 900 MTCO₂e/yr threshold, which represents the most conservative threshold, and the California Air Resources Board (CARB), which recommended a threshold of 7,000 MTCO₂e/yr for industrial projects (CAPCOA 2008, CARB 2008). The Utica Avenue Solar Project’s estimated annual average emissions of 32 MTCO₂e/yr would fall well below all of the referenced thresholds adopted and recommended by other agencies and expert organizations. Therefore, the application of the bright-line methodology for determining the significance of the project’s GHG emissions, employing thresholds adopted or recommended by other agencies and organizations,

results in the conclusion that the project’s GHG emissions would have a less-than-significant impact on the environment.

Upon completion, the 3 MW Utica Avenue Solar Project would generate approximately 5,409 MWh/yr., which is based on the average generation of 1,803 MWh/MW/yr for Kings County solar PV generating facilities in 2020 (CEC 2022). This is equivalent to the electrical consumption of 788 average California homes (at 6,864 kWh/yr per home in 2020)(US EIA 2021). This electric power would be dispatched to the California Independent System Operator (CAISO) in accordance with a complex and dynamic formula that takes into account numerous variables in ongoing dispatching decisions to meet demand for electricity at any given time. One of those variables is compliance with the mandate to integrate electricity generated from renewable sources into the system at a predetermined rate, i.e., 60 percent renewables by 2030 as mandated by SB 100. Although the cost of fossil fuel sources (e.g., natural gas) is currently on par with renewable sources, fossil plants offer 24-hour reliability which solar cannot match. Thus it is expected that without the RPS mandate, these fossil sources would continue to be the dominant fuel source for electrical generation in California instead of being phased out. Therefore, renewable sources of electricity, such as solar generation, are considered to offset an equivalent amount of generation from other fuel sources, such as natural gas or coal, which would otherwise continue to be favored for dispatch to the grid by the CAISO in the absence of an RPS mandate. In other words, the installation and operation of solar facilities, like the Utica Avenue Solar Project, would result in a net reduction of fossil-based generation, and hence a net reduction in CO₂ emissions, relative to overall CO₂ emissions that would occur without the project.

In order to quantify the net reduction in CO₂ emissions that would be represented by the project, the CO₂ emissions from a hypothetical fossil plant with the same electrical output was considered for comparison. The carbon intensity for an average natural gas fueled power plant in the U.S. is currently 0.414 MTCO₂e/MWh (US EIA 2021). Based on this emissions factor, a gas-fired plant generating 5,409 MWh/yr (the equivalent of the Utica Avenue Solar Project) would produce annual GHG emissions of approximately 2,239 MTCO₂e/yr. Compared to the Utica Avenue Solar Project’s GHG annual emissions shown in Table GHG-1 (i.e., operational emissions plus amortized construction and decommissioning emissions) of 32 MTCO₂e/yr, the annual emissions from gas-fired power plant would be approximately 70 times greater. The Utica Avenue Solar Project would represent an annual net reduction of 2,207 MTCO₂e/yr, or a 98.6 percent net reduction in GHG emissions compared to the natural gas fueled alternative.

In summary, the Utica Avenue Solar Project would result in a relatively low level of GHG emissions during project construction and decommissioning; however, when combined with the near-zero emissions from electrical generation during project operation, the project would result in a net reduction of overall GHG emissions from electricity generation in California. Therefore, the greenhouse gas emissions generated by the project would have a *less-than-significant* effect on the environment.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. Kings County’s GHG policies are set forth in General Plan Air Quality Element in AQ Goal 1, AQ Objective G1.1, and AQ Policy G1.1.1., which encourage the reduction of greenhouse gas

emissions in the County’s internal governmental operations and land use activities within its authority (see ‘Regulatory Context’ above for full policy language). As discussed above, the Utica Avenue Solar Project would result in a net overall reduction in GHG emissions, and therefore the project would be consistent with this General Plan goal, objective, and policy. In the Resource Conservation Element, RC Policies G1.2.1 through G1.2.6 promote the use of renewable energy sources such as solar, wind, and biomass projects, and provide guidance for their appropriate placement and project review (Kings County 2010b). The Utica Avenue Solar Project would advance the implementation of these policies by providing a new source of renewable energy in compliance with applicable County conditions and standards, thereby helping to reduce GHG emissions. There are no other local plans, policies or regulations contained in the *2035 Kings County General Plan*, the *Kings County Development Code*, or other local guidelines or regulations which are directed toward the reduction of GHG emissions associated with land development projects. Therefore, the Utica Avenue Solar Project would not conflict with applicable local plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.

At the State level, the determination of significance under this criterion is based on whether the project would hinder or delay implementation of the statewide GHG reduction targets set forth in AB 32. The State’s strategies for achieving the mandated 2030 GHG emissions reduction target are outlined in the 2017 Climate Change Scoping Plan adopted by the California Air Resources Board. One of the key strategies is the Renewables Portfolio Standard (RPS), which now requires all electric utilities in California to include a minimum of 60 percent renewable generation sources in their overall energy mix by 2030. As a solar photovoltaic generating facility, the Utica Avenue Solar Project will help increase the proportion of renewables in the statewide energy portfolio, thereby furthering the implementation of RPS by the target year instead of hindering or delaying its implementation. The addition of the project’s solar generation to the State’s electrical supply will help facilitate the retirement of existing older fossil-fueled generation plants, thereby avoiding or offsetting those sources of GHG emissions. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of conflicting with a plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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4.9. HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>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?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>e) For a project located within an airport land use plan or, where such 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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Introduction

The following discussion of hazards and hazardous materials is partially based on the Phase I Environmental Site Assessment (ESA) prepared on the project site by Moore Twining Associates (MTA) in March 2022. The MTA report is contained in Appendix C of this document.

The Phase I ESA by MTA consisted of the following: visual inspections of the site and surrounding areas; reviews of historical aerial photographs, historical topographic maps, local permit records, and other property data sources; reviews of federal and state regulatory lists of known or potential hazardous waste sites or landfills. As part of the Phase I ESA, a government records report, prepared by Environmental Data Resources (EDR), was obtained. This report searches federal and state databases, including California Government Code 65962.5 list (Cortese List) and databases maintained by the Regional Water Quality Control Board, for potential sources of hazardous substances or petroleum that might affect the soil and/or groundwater quality of the project site and its vicinity.

Environmental Setting

The Utica Avenue Solar Project site is a rectangular-shaped property, approximately 29.5 acres in size, located south of Utica Avenue and east of the unimproved 22nd Avenue alignment in Kings County. The entire site consists of vacant land.

A dry irrigation canal runs east-west across the northwest corner of the site along Utica Avenue. A 12-kV electrical distribution line runs along the south side of Utica Avenue adjacent to the project site. There are no associated pole-mounted transformers in the site vicinity. There are no buildings, sheds, wells, or other structures on the Utica Avenue Solar Project site.

Historical records indicate that the site has been vacant except for a short period in the mid-1980s when it was irrigated for crops. There are no records or surface evidence of agricultural water wells on the site, either currently or in the past.

No oil or natural gas wells (operating or abandoned) are present on the Utica Avenue Solar Project site. Southern Kings County and western Fresno County include several oil and natural gas fields. The project site is located within the former Dudley Ridge Gas Field, which is identified as “abandoned” by California Division of Geological, Energy and Mineral Resources (CalGEM). All of the gas wells drilled in the Dudley Ridge Gas Field have either been plugged or are idle “dry holes.” Within one-half mile of the project site, there are 9 plugged gas wells, the nearest of which are located 200 feet east and 150 feet west of the project site. The nearest active oil wells are located approximately 5 miles west in the Kettleman North Dome Oil Field (CalGEM 2022).

There is no evidence that the Utica Avenue Solar Project site includes any potential contamination due to disposal, spillage, or leakage of hazardous materials or any other source. A review of federal, state, and local databases indicated that there are no known hazardous materials sites on the project site or surrounding area.

Regulatory Context

State of California

California Health and Safety Code

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, State, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code Section 25501 as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.”

Under Government Code Section 65962.5, both the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The project site is not listed by the DTSC or SWRCB as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code § 65962.5 (Cortese List). A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations within one mile of the Project site.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goal, objective and policy related to hazardous materials that are relevant to the Utica Avenue Solar Project:

Health and Safety Element

B. Community Health

HS GOAL B1 Promote the health and wellbeing of County residents, and support healthy living environments, physical activity opportunities, medical services, and readily available nutritious food sources.

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

RC Policy B1.5.1: Evaluate 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.

Kings County Code of Ordinances

Regulation of Flammable Liquid Storage

Section 10-23 of the County Code provides that above-ground storage and handling of flammable liquids in quantities greater than 52 gallons at distances of less than 50 feet from a building or property line shall require a permit from the County Fire Chief.

Kings County Division of Environmental Health Services (EHS)

The Kings County Department of Public Health Services, Division of Environmental Health Services (DEHS) has primary authority for administration and enforcement of hazardous materials regulations in Kings County. In accordance with state law requirements, in 1996 the County created the Certified Unified Program Agency (CUPA) to consolidate all County hazardous materials programs under one agency. The DEHS is the designated the lead agency for hazardous materials programs and acts as the single point of contact for issuance of permits. Site inspections of all hazardous materials programs (e.g., aboveground tanks and underground tanks, hazardous waste treatment, hazardous waste generators, hazardous materials management plans, etc.) are consolidated and accomplished by a single

inspection. All businesses that handle or store hazardous materials above 55 gallons for liquids, 400 pounds for solids; and 200 cubic feet for compressed gases are required to complete forms and file a Chemical Inventory with the DEHS. Lower thresholds are typically mandated for “Acutely Hazardous Substances.” A site map and emergency plan are also required to be submitted by all businesses that submit a Hazardous Materials Business Plan (HMBP) and Chemical Inventory. The program provides emergency response to chemical events to furnish substance identification; health and environment risk assessment; air, soil, water and waste sample collection; incident mitigation and cleanup feasibility options and on-scene coordination for state superfund incidents. The program also provides for the oversight, investigation and remediation of unauthorized releases from underground tanks.

Kings County Fire Department

The Kings County Fire Department has responsibility for managing responses to the release or potential release of hazardous materials, as part of its role as the Office of Emergency Management (OEM) for Kings County.

Environmental Evaluation

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact with Mitigation Incorporated. The Utica Avenue Solar Project would involve the use of hazardous materials during construction, project operation, and decommissioning, as discussed below.

Construction

The hazardous materials used during construction of the Utica Avenue Solar Project would include gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, welding and soldering supplies, pressurized gases, etc. All hazardous materials would be stored in containers that are specifically designed for the materials to be stored. The fuels stored on-site would be in a locked container (aboveground storage tank) within a fenced and secure staging area.

During construction, substantial quantities of gasoline, diesel fuel, and transformer insulating oil (mineral oil) will be transported to the site. A spill of these hazardous liquids en route to the project site could result in significant impacts to soil, surface water, groundwater, or the public. However, such materials are routinely and safely transported on public roadways. The transport of large quantities of hazardous materials is strictly regulated by the California Highway Patrol (CHP). Large quantities of hazardous materials used during project construction would be transported along regulated routes by a licensed transporter, and would not pose a significant hazard to the public or the environment.

During construction of the solar facilities, minor spills or discharges of hazardous materials could occur due to improper handling, storage, and/or disposal. Unless mitigated, this would represent a significant impact. In order to reduce the potential impacts from hazardous materials to less-than-significant levels, the following mitigation measure shall be implemented in conjunction with the project.

Mitigation Measure HAZ-1: Protection from Hazardous Materials. *In order to protect the public from potential release of hazardous materials, the following measures shall be implemented during project construction, operation, and decommissioning:*

- a. The project applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) in accordance with the requirements of, and to the satisfaction of, the Kings County Public Health Department Environmental Services Division;*
- b. The project applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the State Water Resources Control Board, and to the satisfaction of the Central Valley Regional Water Quality Control Board.*

The potential for minor spills would be largely avoided through implementation of the Hazardous Materials Business Plan (HMBP), as required under the Hazardous Materials Release Response Plan and Inventory Act of 1985. Under this state law, the applicant is required to prepare an HMBP to be submitted to the Kings County Public Health Department, Environmental Health Services Division, which is the Certified Unified Program Agency (CUPA) for Kings County. The HMBP would include a hazardous material inventory, emergency response procedures, training program information, and basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of at the proposed project site, and procedures for handling and disposing of unanticipated hazardous materials encountered during construction. The HMBP would include an inventory of the hazardous waste generated on site, and would specify procedures for proper disposal. As required, hazardous waste would be transported by a licensed hauler and disposed of at a licensed facility. According to the HMBP reporting requirements, workers must be trained to respond to releases of hazardous materials in accordance with State and federal laws and regulations governing hazardous materials and hazardous waste (e.g., HAZWOPER training required by OSHA). Any accidental release of small quantities of hazardous materials would be promptly contained and abated in accordance with applicable regulatory requirements and reported to the Environmental Health Services Division. As the CUPA for Kings County, the Environmental Health Services Division of the County Public Health Department is responsible for implementation and enforcement of HMBPs. Implementation of the HMBPs for each phase of the Utica Avenue Solar Project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.

As specified in Mitigation Measure HAZ-1, the project proponent will be required to prepare, or to have prepared, and to implement a Storm Water Pollution Prevention Plan (SWPPP) for the project, as required by the State Water Resources Control Board (SWRCB)(for a detailed discussion, see Section 4.10. *Hydrology and Water Quality*). The SWPPP will specify best management practices for control, containment of hazardous materials during construction, including housekeeping measures for control of contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides, as well as vehicle and equipment fueling and maintenance practices, and waste management and disposal control practices, among other things. The project SWPPP will be prepared by a certified Qualified SWPPP Developer (QSD), who will ensure that the BMPs in the project-specific SWPPP will fully comply with the requirements of the General Permit. The enforcement of project SWPPP is the responsibility of the Central Valley Regional Water Quality Control Board, whose responsibilities include conducting inspections of the project construction

sites to ensure effective implementation of Best Management Practices (BMPs) specified in the SWPPP prepared for the project.

Additionally, the use, storage, transport, and disposal of construction-related hazardous materials and waste would be required to conform to other applicable laws and regulations. These include the Hazardous Material Transportation Act, Resource Conservation and Recovery Act, California Hazardous Waste Control Act, Unified Program, and California Accidental Release Prevention Program. As the local Certified Unified Program Agency (CUPA), the Kings County Environmental Health Services Division (KCEH) coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials. For example, KCEH administers the Accidental Reporting Program, Hazardous Materials Business Plans, Above Ground Storage Tank Program, and Underground Storage Tank Program.

In summary, the implementation of Mitigation Measure HAZ-1 would ensure that hazardous materials used in project construction are handled, stored, and disposed of in accordance with the SWPPP required to be implemented in conjunction with the project, with oversight by the responsible agencies. Therefore, implementation of Mitigation Measure HAZ-1 would reduce potential for impacts to the public and the environment from routine transport, use, and disposal of hazardous materials during project construction to *less-than-significant* levels. (Note: The HMBP applies only to project operations, discussed below.)

Project Operation

Operation and maintenance of the Utica Avenue Solar Project would involve the transport, use, and disposal of minor amounts of hazardous materials, including motor vehicle fuel, lubricants, inverter coolant, cleaning chemicals, paint, pesticides, herbicides, and fire suppressant. Materials would be stored in temporary above-ground storage tanks or in secure sheds or fenced areas. During operation, certain project components, such as switchgears, transformers, and inverters, may contain small quantities of hazardous materials. The transformers within the solar facility would contain mineral oil, although transformer oil does not ordinarily require replacement. The transformers would be provided with secondary containment to minimize hazard from any leaks or spills. Large quantities of hazardous substances would not be routinely transported or used during operation, except for transformer oil during major maintenance activities.

During operation of the solar facilities, minor spills or discharges of hazardous materials could occur due to improper handling, storage, and/or disposal. Unless mitigated, this would represent a significant impact. In order to reduce the potential impacts from hazardous materials during project operations to less-than-significant levels, Mitigation Measure HAZ-1, as set forth above, would be implemented in conjunction with the project.

As described above for the construction phase, compliance with other applicable laws and regulations governing the handling, storage, containment, clean-up, and disposal of hazardous materials and hazardous waste would minimize the risk to the public and the environment of exposure to hazardous materials. Mitigation of such impacts would be ensured through implementation of Mitigation Measure HAZ-1.

Although not currently proposed, it is possible that the Utica Avenue Solar Project could employ thin-film modules containing Cadmium-Telluride (CdTe) which is classified as a hazardous material.

In any solar facility, it is expected that some modules will occasionally need replacement during the life of the facility. The potential hazards associated with CdTe PV modules are addressed in detail under item 'b' below.

The project's energy storage facility would include a number of prefabricated electrical enclosures containing battery banks and associated switchboards, inverters and transformers. All battery containers would be installed on concrete foundations designed to provide secondary containment. The enclosures would have appropriate fire suppression systems built to code. Each energy storage unit used on site will be designed in compliance with Section 608 of the International Fire Code, which has been adopted by the State of California to minimize risk of fire from stationary storage battery systems and contain fire in the event of such an incident. Under California law, the battery enclosures also must comply with Article 480 of the Electrical Code, which presents requirements for stationary storage batteries. Article 480 provides the appropriate insulation and venting requirements for these types of systems, further preventing associated risk of fire from the battery enclosures on the project site. Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized equipment along with mandated training for Fire Department personnel.

Herbicides would be used at the Utica Avenue Solar Project to control noxious weeds and invasive species, in accordance with the Pest Management and Weed Abatement Plan (PMWAP) to be prepared for the project in accordance with the Kings County Development Code. The herbicides would be applied by a licensed herbicide applicator, in compliance with the regulations of the U.S. EPA, and the California Department of Pesticide Regulation (DPR). As discussed in item 'b' below, modern herbicides and pesticides degrade rapidly and therefore are not considered to pose a contamination hazard according to the California Department of Toxic Substances Control (DTSC 2008). As also discussed in item 'b' below, past agricultural practices on the project site may have involved the use of environmentally persistent pesticides, but given that it has been at least 30 years since this site was cultivated, any residual concentrations of these "legacy" pesticides in soils at the site would be well below hazardous levels.

In summary, the implementation of Mitigation Measure HAZ-1 would ensure that hazardous materials used in project operation are handled, stored, and disposed of in accordance with the HMBP and SWPPP required to be implemented in conjunction with the project, with oversight by the responsible agencies. Therefore, implementation of Mitigation Measure HAZ-1 would reduce potential for impacts to the public and the environment from routine transport, use, and disposal of hazardous materials during project construction to *less-than-significant* levels.

Decommissioning

As described in Section 2.2. *Project Description*, when the Utica Avenue Solar facility reaches the end of its productive life, the solar arrays and supporting infrastructure would be disassembled and removed, with all materials recycled, reused, or disposed of as appropriate in accordance with the Decommissioning and Soil Reclamation Plan to be prepared as prescribed in Mitigation Measure AG-2. The materials to be removed would include solar arrays, inverters, transformers, cabling and wiring, perimeter fencing, batteries, and other project components. During decommissioning of the solar facilities, minor spills or discharges of hazardous materials could occur due to improper handling, storage, and/or disposal. Unless mitigated, this would represent a significant impact. In order to reduce the potential impacts from hazardous materials during project decommissioning to

less-than-significant levels, Mitigation Measure HAZ-1, as set forth above, would be implemented. At the time of decommissioning, the project SWPPP would be updated or replaced with a new SWPPP which would be tailored specifically to decommissioning activities.

As discussed above, it is possible but unlikely that the project would include solar modules containing CdTe. The potential hazards associated with removal of CdTe PV modules are addressed in detail under item 'b' below.

In conclusion, the handling, use, storage, transport, and disposal of hazardous materials during the construction, operation, and decommissioning of the Utica Avenue Solar Project could potentially result in significant hazards to the public and the environment. The implementation of Mitigation Measure HAZ-1, as set forth above, would reduce the potential hazard to the public or the environment from routine transport, use, or disposal of hazardous materials associated with the Utica Avenue Solar Project to *less-than-significant* levels.

b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less-than-Significant Impact with Mitigation Incorporated. There are four conditions associated with the Utica Avenue Solar Project that have the potential to release hazardous materials into the environment. These include: 1) accidental release of hazardous materials from solar panels; 2) hazards associated with storage batteries; 3) exposure to valley fever; and 4) exposure to residual agricultural chemicals. These conditions are discussed in turn below.

1. Hazardous Materials in Solar Panels

There are two dominant semiconducting materials used in photovoltaic technology including: crystalline silicon (c-si) which is the conventional material used in flat plate panels; and thin-film semiconductors such as amorphous silicon (a-si) and cadmium telluride (CdTe). The silicon based solar cells do not contain hazardous materials, although they may use lead-containing solders. Improper decommissioning of the panels with lead-containing solders could result in lead leaching into landfills and eventually into waterbodies. The applicant would recycle, reuse, or dispose of solar PV cells in compliance with all applicable local, state, and federal regulations.

CdTe is a hazardous substance when not imbedded within a PV module. (Cadmium compounds are classified by US EPA as a probable human carcinogen (US EPA 2016)). Although not currently planned, it is possible that the Utica Avenue Solar Project could include thin film modules with CdTe. At present, CdTe is only contained in modules manufactured by First Solar Inc.

During the manufacturing process, the CdTe semiconductor layer is sealed between two sheets of glass. CdTe contained within PV modules is highly stable and no emissions of any kind are generated when PV modules are used under normal conditions (Fthenakis 2003). The primary manufacturer and operator of solar facilities with CdTe PV modules, First Solar, has a program for recycling modules at the end of their 25-year life cycle. During the recycling and refining process, up to 90 percent of the semiconductor material is recovered for reuse in new modules (First Solar 2022).

In summary, the potential for emissions of CdTe is negligible during normal use of CdTe PV modules. Recycling of CdTe modules is preferable to disposal at a landfill, from a waste reduction and materials recovery standpoint, and a manufacturer's program is in place to accept used CdTe PV modules. However, since the evidence indicates there is a negligible human health risk associated with CdTe modules, mandatory recycling of these modules is not required.

Under California law, PV modules are classified as universal waste (e-waste), and are not considered to be hazardous waste. In late 2020, the California Office of Administrative Law (OAL) approved regulations, effective January 1, 2021, for managing PV modules as universal waste (DTSC 2022b). The adopted regulations include specific requirements for handling, transport, treatment, and disposal of discarded PV modules. All PV modules brought to the project site that are deemed unusable will be recycled at a private facility by the project operator, or handled and disposed of as universal waste.

In conclusion, the potential use and disposal of PV modules at the Utica Avenue Solar Project would not result in a significant risk of a release of hazardous materials that would be harmful to human health or the environment. Therefore, the potential for health hazard from PV modules would represent a *less-than-significant impact*.

2. Storage Batteries

The project would include energy storage facilities consisting of several prefabricated electrical enclosures containing battery banks and associated switchboards, inverters and transformers. The battery storage systems would be subject to potential explosion and fire hazards, and possible discharge of hazardous materials. The batteries would be enclosed in metal cargo containers which would be installed on concrete foundations designed to provide secondary containment. The enclosures would have appropriate fire suppression systems built to code. Each energy storage unit used on site will be designed in compliance with Section 608 of the International Fire Code, which has been adopted by the State of California to minimize risk of fire from stationary storage battery systems and contain fire in the event of such an incident. Under California law, the battery enclosures also must comply with Article 480 of the Electrical Code, which presents requirements for stationary storage batteries. Article 480 provides the appropriate insulation and venting requirements for these types of systems, further preventing associated risk of fire from the battery enclosures on the project site. Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized equipment along with mandated training for Fire Department personnel. Therefore, the potential hazard associated with storage batteries would represent a *less-than-significant impact*.

3. Valley Fever

The project site is located in an area that may harbor the fungus that causes Valley Fever, a lung disease common in the southwestern United States. Valley Fever is caused by the fungus *Coccidioides immitis*, which grows in soils in areas of low rainfall, high summer temperatures, and moderate winter temperatures. The fungus is prevalent in the soils of the San Joaquin Valley, including Kings County, where the average annual exposure rates are more than 100 in 100,000 people (CDPH 2019). The fungal spores become airborne when the soil is disturbed by winds, construction, farming, or other activities. Most people who inhale the spores do not get sick. Usually, susceptible individuals experience flu-like symptoms and will feel better on their own within

weeks, although some people require antifungal medication (CDC 2022). There is an increased risk of exposure to people working in construction and agriculture due to their proximity to potential release of airborne spores.

The fungal spores that cause Valley Fever are most prevalent in undisturbed soils. Since the land in Kings County consists predominantly of disturbed agricultural land, the risk of infection due to developments on agricultural land is considered low (Kings County 2009b). However, the fungal spores are too small to be seen and it is unknown if the soils of the project site contain Valley Fever spores. As such, there is a potential for on-site workers to become infected. The potential for airborne release of Valley Fever spores would be greatest during construction and decommissioning when soils are temporarily exposed and disturbed by grading and excavation activity. The health risk to workers from potential exposure to valley fever represents a potentially significant impact. In order to reduce the potential health impacts from Valley Fever to less-than-significant levels, the following mitigation measures shall be implemented in conjunction with the project.

Mitigation Measure HAZ-2: Preventing Valley Fever Exposure. *In order to protect the public and workers from Valley Fever, the following measures shall be implemented during project construction and decommissioning:*

- a. *Implement the Dust Control Plan required to be approved for the project by the San Joaquin Valley Air Pollution District under District Rule 8021 prior to ground disturbing activity.*
- b. *Provide workers with NIOSH-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or HEPA, as recommended in the California Department of Public Health publication “Preventing Work-Related Coccidioidomycosis (Valley Fever),” available at <http://www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf>.*

The implementation of these measures in conjunction with project construction and decommissioning would minimize the risk of exposure of workers to Valley Fever. Therefore, the potential hazard to the public from potential exposure to Valley Fever would be reduced to *less-than-significant* levels.

4. Residual Agricultural Chemicals

Organochlorine Pesticides from Past Agricultural Practices

In the past, agricultural practices commonly included the application of environmentally persistent pesticides such as DDT, Aldrin, dieldrin, and mirex. Collectively known as organochlorine pesticides (OCPs), these compounds were found to be toxic and bioaccumulative, and were banned from use, beginning in 1974 for DDT, and quickly thereafter for other OCPs in California. Due to the environmental persistence of these compounds, residual concentrations may still be present in the soils where they were applied. For example, the half-life of DDT in soil is 2-15 years depending on local climate conditions, while most other OCPs (and POPs – Persistent Organic Pesticides, like Toxaphene) have half-lives of up to 12 years. Thus, a compound with a 15-year half-life would be 50 percent degraded after 15 years, 75 percent degraded after 30 years, 87.5 percent degraded after 60 years, and so on. As noted above, a review of historical aerial imagery of the site indicates that it was cultivated for irrigated crops for a brief period in the mid-1980s and has not been in crop production at any time before or since. However, under a highly unlikely scenario where it is assumed that DDT was applied on the site, and that the last application was in 1974, and also

assuming the high end of the range for its half-life (i.e., 15 years), the concentration of DDT would have degraded to less than 20 percent of its original strength during the 48 years between 1974 and 2022. Soil sampling and testing performed by Moore Twining Associates (MTA) on other agricultural sites in Kings County (where organochlorine pesticides were historically applied) have shown that the soils on those sites are well below regulatory screening levels for organochlorine pesticides, as well as Toxaphene. Thus it is highly unlikely that legacy pesticides like DDT and Toxaphene would be present on the project site in hazardous concentrations.

While there is very low potential for these “legacy pesticides” to be present on agricultural lands in hazardous concentrations, it is considered more likely that high concentrations would be found in areas where the chemicals were loaded, stored, or mixed. Incidences of such contamination are associated with the “hot spots” resulting from occasional spillage at chemical storage sites and have not been found to be associated with areas where the chemicals were merely broadcast over the crops. Thus, unless chemical mixing has occurred, there is typically a very low potential for environmentally persistent pesticides/herbicides related to crop cultivation to exist in the near-surface soils at concentrations which would require regulatory action.

It is unknown whether OCPs or POPs were applied at the site before they were banned in the 1970s, although it is considered highly unlikely given that no crop cultivation occurred on the site prior to the 1980s. If they were applied, there is a very low likelihood that the soils are contaminated, particularly since there is no evidence that mixing of agricultural chemicals occurred on the Utica Avenue Solar Project site in the past. Thus it is highly unlikely that legacy pesticides like DDT and Toxaphene would be present on the project site in hazardous concentrations. Therefore, the potential impact due to exposure to residual agricultural chemicals is *less than significant*.

Recent Use of Agricultural Chemicals

Based on its review of historical aerial photography of the project site, MTA concluded that cultivation of crops on the project site occurred for a brief period in the mid-1980s, and that the site has been in pasture or fallow during the intervening 30+ years. Since no crops have been grown on the project site in at least 30 years, no pesticides would have been applied to the site during that period. The pesticides that are currently approved for agricultural use consist of non-persistent compounds that degrade rapidly (within a few days or weeks) after application. The longest-lived pesticides include paraquat and glyphosphate (Roundup), which have half-lives of approximately 1,000 days and 100 days, respectively (UCD 2022). Since no pesticides have been applied on the site since at least the late 1980s, any pesticide concentrations at the site from applications which may have occurred prior to that time have by now degraded to non-detectable levels. The Department of Toxic Substances Control (DTSC) does not recommend sampling for currently permitted pesticides since they have relatively short half-lives. While paraquat does have a longer half-life in soil, it has not been detected or rarely detected at trace levels at sites which DTSC has had oversight; therefore, routine analysis for paraquat is not required for field areas. Analysis for paraquat may be required in storage and mixing/loading areas (DTSC 2008). There is no evidence that mixing or loading of paraquat or other pesticides has been conducted on the project site. Given these facts, and based on DTSC’s guidance and experience, it is concluded that hazardous concentrations of paraquat are not present at the site.

It is also noted that the routine application of registered pesticides is not a Recognized Environmental Condition (REC) by the American Society for Testing and Materials (ASTM) if applied according to the labeling instructions (Lavey 2014).

Based on the information and analysis presented above, it is concluded that residual agricultural pesticides are not present on the Utica Avenue Solar Project site in hazardous concentrations. Therefore, the potential hazard to the public and workers from exposure to residual agricultural chemicals at the Utica Avenue Solar Project site represents a *less-than-significant* impact.

c) *Would the project 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. There are no schools within one-quarter mile of the Utica Avenue Solar Project site. The nearest schools are located in: Kettleman City (8 miles northwest), Avenal (15 miles northwest), and Stratford (18 miles north). The Utica Avenue Solar Project would result in *no hazardous materials impacts* to schools in the vicinity.

d) *Would the project 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. There are no hazardous materials sites on the Utica Avenue Solar Project site or surrounding properties listed on the Department of Toxic Substances Control's (DTSC's) Hazardous Waste and Substances Site List (Cortese List) compiled pursuant to Government Code Section 65962.5 (DTSC 2022a). A comprehensive search by MTA of all federal, state, and local database information systems likewise indicated no listed hazardous materials sites. A review of files for the Utica Avenue Solar Project site and adjacent properties at the Kings County Environmental Health Department (KCEHD), and State Water Resources Control Board (SWRCB) likewise identified no documentation for the project site or adjacent properties (MTA 2022). Therefore, the project would have *no impact* to the public or environment by being located on a listed hazardous material site.

e) *For a project located within an airport land use plan or, where such 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?*

Less-than-Significant Impact. The Utica Avenue Solar Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest public or public use airports include the Hanford and Coalinga municipal airports, both located 29 miles from the project site, and the Harris Ranch airfield, located 30 miles from the project site. The project site is not within an 'airport land use plan' for any of these airports.

The airfield at Naval Air Station Lemoore (NASL) is located 25 miles north of the Utica Avenue Solar Project site. The project site is not within the study area of the NAS Lemoore Joint Land Use Study (JLUS). The project site is located 23 miles south of the nearest accident potential zone mapped for NASL. The project site is entirely outside NASL flight approach/departure zone, the southern end of

which is approximately 12 miles north of the project site (JLUSPC 2011). Given the distance of the project site from NAS Lemoore, the project would not be subject to height restrictions for avoiding aviation hazards.

In summary, the Utica Avenue Solar Project would not result in a significant safety hazard to on-site employees due to the proximity of public airports or public use airports. As such, the potential for the project to be adversely affected by aviation hazards is *less than significant*.

f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less-than-Significant Impact. In 2015, the Kings County Board of Supervisors adopted the County of Kings Emergency Operations Plan (EOP). The EOP, which is overseen and managed by the Kings County Office of Emergency Services (OES), addresses the County's response to extraordinary emergency situations associated with large-scale disasters, technological incidents, and national security emergencies which can pose major threats to life, property and the environment. The EOP does not apply to normal day-to-day emergencies or the established departmental procedures for responding to such emergencies. The EOP assigns functions and tasks consistent with California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). In a large scale emergency, the plan would be activated by the Kings County OES which would take the lead in coordinating multiple jurisdictions in implementing the plan (Kings County 2015). The construction and operation of the Utica Avenue Solar Project would not impair or interfere with the operations of the OES or its support system, including the Kings County Fire Department and Sheriff's Office, and other agencies and organizations responsible for implementing the EOP. For example, the project entrance and internal driveways would be designed and constructed in accordance with all applicable design standards for emergency access (e.g., minimum lane width and turning radius to allow the passage of emergency vehicles). The project would also incorporate all applicable design and safety requirements in the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the County and KCFD. Compliance with these codes and standards is ensured through the County's and KCFD's development review and building permit process. Also, the Utica Avenue Solar Project would not be considered a critical facility to provide essential services during and after a disaster. As such, the Utica Avenue Solar Project would not impair implementation of, or physically interfere with the Kings County Emergency Operations Plan.

In times of emergency or disaster response, the nearby State highways would serve as primary evacuation routes, and designated County roadways in the area would serve as secondary routes. In the project vicinity, the primary evacuation routes include I-5 and SR-41, and the nearest secondary routes are Utica Avenue and 6th Avenue (Kings County 2010e). Utica Avenue would provide a local escape route for the project. The Utica Avenue Solar Project would not result in changes to the adjacent roadway network, and the solar facility's small operational workforce would not create or increase traffic congestion during times of emergency or disaster. During the construction phase, slow moving vehicles or trucks delivering large pieces of equipment or components could result in traffic slowdowns, although such conditions would be temporary and infrequent and would be managed pursuant to traffic controls specified in Mitigation Measure TR-1 (see Section 4.17. *Transportation*).

In summary, the Utica Avenue Solar Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or an emergency evacuation plan, and therefore the potential impact in this regard would be *less than significant*.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-than-Significant Impact. The Utica Avenue Solar Project site is not located in or near a state responsibility area or on lands classified as very high fire hazard severity zones. The map of Fire Hazard Severity Zones (FHSZ) in the State Responsibility Area (SRA) for Kings County prepared by the California Department of Forestry and Fire Protection (CAL FIRE) shows the project area as being within a Local Responsibility Area (LRA)(CAL FIRE 2007). The nearest areas mapped as being within the SRA are located southwest of State Route 33, approximately 15 miles southwest of the Utica Avenue Solar Project site. The nearest area within the SRA that is zoned as Very High Severity on the FHSZ map is located in the Diablo Range at the western edge of Kings County, at least 20 miles from the Utica Avenue Solar Project site.

CALFIRE’s map of Fire Hazard Severity Zones in Local Responsibility Area (LRA) for Kings County shows the project area as being “unzoned” for fire hazard. The nearest areas within the Kings County LRA that are zoned as High Severity are located in the Kettleman Hills at least 11 miles southwest of the project site, and there are no areas in the Kings County LRA that are zoned Very High Severity (CAL FIRE 2007). The Health and Safety Element of the Kings County General Plan includes a map of Potential Fire Hazards (Figure HS – 9) which shows the project site as mapped “within 2400 meters (1.5 miles) of a moderate threat” for potential fire, with lands adjacent to the site being subject to “little or no threat” for potential fire (Kings County 2010e). Therefore, the risk of wildland fire at the Utica Avenue Solar Project is *less than significant*.

[For detailed discussion see Section 4.20. *Wildfire*.]

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- | | |
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4.10. HYDROLOGY AND WATER QUALITY

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
b) <i>Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impact sustainable groundwater management of the basin?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
c) <i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:</i>				
i. <i>result in substantial erosion or siltation on- or off-site;</i>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
ii. <i>substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
iii. <i>create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
iv. <i>impede or redirect flood flows?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
d) <i>In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation??</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
e) <i>Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Hydrologic Setting

Kings County receives runoff from the Sierra Nevada as it is carried in creeks, rivers and sloughs as far west as the Kings River which flows in a west-southwesterly direction to the Tulare Dry Lakebed. The historic southern shoreline of Tulare Lake is located approximately one mile to the north of the Utica Avenue Solar Project site, and follows the approximate alignment of the Blakely Canal. The drainage courses originating in the Kettleman Hills to the west generally dissipate west of the California Aqueduct, approximately 4 miles west of the project site. The project area is virtually level and has no natural drainage features. The relatively low annual rainfall (~6.6 inches) in the project area is absorbed by the soil and crop cover, with little or no runoff leaving the site. The channel of a former irrigation canal passes through the northwest corner of the project site along Utica Avenue. This canal is no longer used to convey irrigation water, but captures rainfall and incidental runoff from immediately adjacent land.

The project site is located in the Dudley Ridge Water District (DRWD) which provides imported surface water supplies from the State Water Project (SWP) to landowners in the District. The District takes surface water directly from the California Aqueduct and conveys the water via concrete-lined distribution channels and pipelines to District landowners. The District encompasses approximately

37,600 acres of which 23,000 acres have a water allocation (DRWD 2019). Annual water demand in the District is 60,000 to 65,000 acre-feet, or approximately 2.6 to 2.8 acre-feet per acre of irrigated land. The groundwater underlying the Water District (including the project site) is not usable for irrigation due to low yields and poor quality. The California Department of Water Resources (DWR) characterized the District’s groundwater situation in Bulletin 118-98 as “groundwater unavailable or unusable” (DRWD 2020). As such, there are no groundwater wells within the District.

In 1998, the project site was annexed to the Dudley Ridge Water District as part of an approximately 3,942-acre annexation of lands owned by Sandridge Partners. The project site was “subordinately” annexed, meaning that it was only eligible to receive water supply from the Water District if there was excess water available in any given year that was not allocated to other lands in the District. No excess surface water has been available since the 1980s to allow delivery of water to the project site. In addition, the nearest District water conveyance facility is located about two miles south of the project site, so water delivery to the site is not feasible in any case (DRWD 2020). In summary, the project site has no agricultural water available, either from surface water or groundwater sources, for purposes of crop irrigation.

Regulatory Context

Federal

Clean Water Act

The Clean Water Act (CWA) was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the Nation’s waters. The CWA directs states to establish water quality standards for all “waters of the United States” and to review and update such standards on a triennial basis. Other provisions of the CWA relate to basin planning including Section 208, which authorizes the preparation of waste treatment management plans, and Section 319, which mandates specific actions for the control of pollution from non-point sources. Section 303 requires states to adopt water quality standards for all surface waters of the U.S. Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use. Section 402 mandates that certain types of construction activity comply with the requirements of Environmental Protection Agency’s National Pollution Discharge Elimination System (NPDES) stormwater program. The U.S. Environmental Protection Agency (USEPA) has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the NPDES Program, to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB). Construction activities that disturb one or more acres of land must obtain coverage under the NPDES general construction activity stormwater permit, which is issued by Central Valley Regional Water Quality Control Board (RWQCB) (see detailed discussion on NPDES permit requirements below).

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. FEMA issues flood insurance rate maps (FIRMs) for communities participating in the NFIP. These maps delineate flood hazard zones in the community. Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and

economics. It requires (1) avoidance of incompatible floodplain development, (2) consistency with the standards and criteria of the NFIP, and (3) restoration and preservation of the natural and beneficial floodplain values. (See “Local” below for further discussion of flood regulations.)

State of California

Porter-Cologne Water Quality Control Act

Adopted in 1969, the Porter-Cologne Act is California’s comprehensive water quality law, establishing an extensive regulatory program and planning and management functions to protect water quality and beneficial uses of the state’s water. It established the State Water Resources Control Board and the nine Regional Boards, whose primary responsibility is the development and implementation of Basin Plans (or Water Quality Control Plans). Pursuant to the authority delegated under CWA Section 303, the Regional Boards issue NPDES discharge permits and Waste Discharge Requirements (WDRs) to municipal wastewater treatment plants and industrial dischargers.

Central Valley Regional Water Quality Control Board

In southern San Joaquin Valley, the state water quality standards are regulated by the Central Valley Regional Water Quality Control Board (CVRWQCB or Regional Board). As noted above, the Regional Board establishes beneficial uses and water quality objectives for surface water and groundwater resources the region through the Tulare Lake Basin Plan. The Regional Board also implements Clean Water Act (CWA) Section 303(d) total maximum daily load (TMDL) process, which consists of identifying candidate water bodies where water quality is impaired or limited by the presence of pollutants. The TMDL process is implemented to determine the assimilative capacity of the water body for the pollutants of concern and to establish equitable allocation of allowable pollutant loading within the watershed.

CWA Section 401 requires an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to obtain a water quality certification (or waiver) from the applicable RWQCB. The RWQCBs primarily implement basin plan policies through issuing waste discharge requirements for waste discharges to land and water. The RWQCBs have also been delegated responsibility for administering the NPDES permit program, which is designed to manage and monitor point and nonpoint source pollution.

NPDES General Permit for Discharges of Storm Water Associated with Construction Activity

As noted above, the portion of the NPDES program that regulates stormwater discharges associated with construction activities applies to construction sites which disturb over one acre. The NPDES General Permit for Discharges of Storm Water Associated with Construction Activity applies to all of California. Since the proposed project would disturb more than 1 acre of land, the project will be subject to the General Permit for stormwater discharges. Administration of the General Permit has not been delegated to cities, counties, or Regional Boards but remains with the State Board. Enforcement of permit conditions, however, is the responsibility of Regional Board staff, assisted by local municipal or county staff. Prior to construction grading for a project, applicants are required to file a “Notice of Intent” (NOI) with the State Board to comply with the General Permit and prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which addresses measures to be included in the project to minimize and control runoff during and after construction. The SWPPP is required to specify the site-specific best management practices (BMPs) to control erosion and sedimentation and discharges of

other construction-related pollutants (e.g., petroleum products, solvents, paints, concrete) that could contaminate nearby water resources during the construction phase. The SWPPP is also required to contain a summary of the structural and non-structural BMPs to be implemented during the post-construction period. The SWPPP is to be kept on-site during construction, and is to be updated each year as site development proceeds.

DWR’s Awareness Floodplain Mapping Project

The California Department of Water Resources (DWR) initiated the Awareness Floodplain Mapping project in order to identify flood hazard areas for areas that are not mapped under the Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program (NFIP) and to provide the community and residents an additional tool in understanding potential flood hazards currently not mapped as a regulated floodplain. The awareness maps identify the 100-year flood hazard areas using approximate assessment procedures. These floodplains are shown simply as flood prone areas without specific depths and other flood hazard data. These maps are not FEMA regulatory floodplain maps; however, at the request of the community, FEMA would include this data on their maps (DWR 2022).

Sustainable Groundwater Management Act

In September 2014, Governor Brown signed the Sustainable Groundwater Management Act (SGMA). The goal of the legislation is to sustainability manage California’s groundwater basins identified as medium to critically overdrafted subbasins. SGMA required that all medium to critically over drafted subbasins identified by DWR be managed by a groundwater sustainability agency (GSA). The GSA is responsible for locally managing the groundwater subbasin through the development and implementation a Groundwater Sustainability Plan (GSP). Medium and high priority groundwater subbasins are required to submit their GSP by 2022 and critically overdrafted subbasin were required to submit their GSP by 2020. The project site is located within the Tulare Lake Subbasin which was identified as high priority by DWR due to its critically overdrafted groundwater conditions. The Subbasin includes five GSAs including the Southwest Kings GSA which covers the project site. The GSAs are responsible for locally managing the groundwater subbasin through the development and implementation a Groundwater Sustainability Plan (GSP). The GSP for the Tulare Subbasin was adopted by the five GSPs in January 2020. The GSP estimated that the long-term sustainable yield for the Subbasin is approximately 300,000 acre-feet per year across 311,000 acres of irrigated land (historical average acreage) within the Subbasin (DWR 2020, p. ES-17).

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following policies related to hydrology and water quality that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

A. Water Resources

RC Policy A1.4.1: Evaluate proposed land uses and development projects for their potential to create surface and groundwater contamination from point and non-point sources. Confer with other appropriate agencies, as necessary, to assure

adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products or waste; floating debris; and runoff from the site.

RC Policy A1.4.2: Monitor and enforce provisions to control water pollution contained in the U.S. EPA National Pollutant Discharge Elimination System (NPDES) program as implemented by the California Water Quality Control Board, Central Valley Region.

RC Policy A1.4.3: Require the use of feasible and cost-effective BMPs and other measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban and agricultural runoff in coordination with the California Water Quality Control Board, Central Valley Region.

RC Policy A1.4.4: Encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.

Health and Safety Element

A. Natural Hazards

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 A4.1.2: Reserve FEMA designated flood hazard areas for agricultural and natural resource conservation uses along the floodway channels and Tulare Lake Basin.

HS Policy A4.1.3: Determine base flood elevations for new development proposals within or adjacent to 100 year flood zone areas as identified in latest FEMA Digital Flood Insurance Rate Map, to definitively assess the extent of property potentially subject to onsite flood hazards and risks.

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 A4.1.6: New development shall provide onsite drainage or contribute towards their fair share cost of off-site drainage facilities to handle surface runoff.

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

HS Policy A4.1.8: Enforce the “Kings County Flood Damage Prevention Ordinance,” Chapter 5A of the Kings County Code of Ordinances.

Kings County Code of Ordinances

Kings County Flood Damage Prevention Ordinance

Kings County maintains a floodplain management program which is implemented through the County's *Flood Damage Prevention Ordinance* (Chapter 5A of the Kings County Code of Ordinances). The purpose of this ordinance is to ensure that proposed development is constructed to prevent flood damage, and to ensure that development in those areas can avoid or withstand flooding without increasing flood risk elsewhere. Flood prevention and control in community districts and urban fringe areas are most effectively deterred by structural means such as curbs, gutters and storm drainage systems. In more rural and less developed Agriculture and Open Space areas, more passive measures are relied upon such as high crowns on roadway pavement to divert floodwaters onto adjacent properties that are more suited to accommodate the diverted drainage.

Kings County Improvement Standards

The Kings County Improvements Standards serves as an engineering reference for Kings County staff and private parties in the design and construction of improvements for public works projects and private development improvements. The standards include engineering design specifications for the construction of streets, water supply systems, storm drainage, and sewage disposal.

Environmental Evaluation

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Water Quality Standards and Waste Discharge Requirements

Less-than-Significant Impact. Water quality standards can refer to drinking water standards or surface water standards. Further, there are separate surface water standards for discharges from wastewater treatment plants and for discharges of stormwater. These are discussed in turn below.

Drinking Water Standards - No Impact: Drinking water standards are implemented by the State Water Resources Control Board, and are applicable to local water distribution systems for domestic water supply. There are no plans to install a domestic water distribution as part of the Utica Avenue Solar Project. Since drinking water for construction and operational staff would be provided by bottled water delivered by truck, the drinking water standards would be applicable at the water bottling plant. (See Section 4.19. *Utilities and Service Systems* for a detailed discussion of water supply.)

Wastewater Treatment Standards – Less-than-Significant Impact: Waste Discharge Requirements generally refers to standards applied to local wastewater treatment facilities by the Regional Water Quality Control Board for quantities and quality of wastewater discharge. There are no plans to install a centralized wastewater treatment facility for the project, so no discharge requirements would apply. Individual septic systems are regulated under the Kings County Plumbing Code, which sets forth design criteria and standards for their installation.

Since the planned solar facilities will have no permanent staff on-site, no permanent wastewater facilities will be installed for the project. When workers are scheduled to be on site for extended periods, such as during panel cleaning cycles, sanitary needs will be provided by portable chemical toilets that will be serviced by an outside contractor as needed.

Stormwater Standards – No Impact: The Central Valley Regional Water Quality Control Board has not established numeric standards for surface water runoff quality; therefore, no surface water quality standards apply to the Utica Avenue Solar Project. (See following paragraphs for detailed discussions of surface water quality.)

Substantially Degrade Surface or Ground Water Quality?

Less-than-Significant Impact with Mitigation Incorporated. During the construction and decommissioning phases, there is a potential for discharges of hazardous materials that could adversely affect the quality of surface water or groundwater. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination of stormwater. Staging areas and building sites can be the source of pollution due to paints, solvents, cleaning agents, and metals contained in the surface of equipment and materials. Gross pollutants such as trash, debris, and organic matter are additional potential pollutants associated with the construction and decommissioning phases of the project. The potential for discharges of hazardous materials to degrade water quality during the construction and decommissioning phases of the project represents a potentially significant impact.

The potential water quality impacts resulting from discharges of hazardous materials during construction and decommissioning would be reduced to less-than-significant levels through implementation of Mitigation Measure HYD-1: Stormwater Quality Protection, as set forth under item 'c' below.

Mitigation Measure: Implement MM HYD-1: Stormwater Protection Measures.

Under Mitigation Measure HYD-1, the measures to prevent hazardous contamination during the construction and decommissioning phases will be specified in the Storm Water Pollution Prevention Plans (SWPPPs) required to be implemented under the mitigation measure. (The project is anticipated to require two SWPPPs, one to be implemented during construction and one to be implemented during decommissioning.) The project SWPPPs will include construction and decommissioning phase housekeeping measures for control of contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides, as well as vehicle and equipment fueling and maintenance practices, and waste management and disposal control practices, among other things. The first SWPPP would also include housekeeping measures to be followed during project operations. In addition, the solar facility would be required to implement a Hazardous Materials Business Plan (HMBP) as specified in Mitigation Measure HAZ-1, which would ensure the proper handling and storage of hazardous materials during project operation. Additionally, the use, storage, transport, and disposal of hazardous materials and waste would be required to conform to existing laws and regulations (see Section 4.9. *Hazards and Hazardous Materials* for detailed discussion.)

With the implementation of Mitigation Measures HYD-1, particularly the hazardous materials provisions of the required SWPPPs, the potential for impacts to surface and groundwater quality

from hazardous materials releases during project construction, operation, and decommissioning of the Utica Avenue Solar Project would be *less than significant*.

b) Would the project decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impact sustainable groundwater management of the basin?

Less-than-Significant Impact. The Utica Avenue Solar Project would require water supplies during construction, operation, and decommissioning, as discussed in turn below.

Construction

During the grading and construction phases, water would be regularly applied to exposed soils and internal access driveways for dust suppression. During earthwork, water would also be required in soil conditioning for optimum moisture content. As discussed in the Section 2.2. *Project Description*, it is estimated that the 3 MW solar project will require a total of 5.9 acre-feet of water during its 3-month construction period. On a per-acre basis, water demand for construction would represent a one-time use of approximately 0.2 acre-foot per acre, which would be far less than the average consumption of 2.6 acre-feet per acre per year for irrigated agriculture in the Water District. As noted under “Hydrologic Setting,” the project site has no water supply available within the Dudley Ridge Water District. The project site is not eligible to receive surface water allocation from the State Water Project and there are no water conveyance facilities in the project vicinity in any case. Groundwater pumping does not occur within the District due to low yields and poor groundwater quality. Therefore, water for construction would be obtained from a source outside the District and hauled to the site via tanker truck. This could include purchase of surface water on the open market, or another source. Under California Water Code Section 10910(i), “hauled water is not considered a source of water” and therefore the source of that water is not required to be identified in a CEQA document.

Within the boundaries of the Southwest Kings Groundwater Sustainability Agency (GSA) where the Utica Avenue Solar Project site is located, only a minimal quantity of groundwater is pumped due to low yield and poor water quality. Thus groundwater levels, water quality, and subsidence are maintained at current levels (DWR 2020, p. ES-3). As noted under ‘Hydrologic Setting’ above, no groundwater pumping occurs within the Dudley Ridge Water District (a member of the GSA) within for the same reasons. No groundwater pumping is proposed at the project site and the minimal impervious surface coverage added by the project would have no discernable effect on groundwater recharge at the site. Therefore, construction of the Utica Avenue Solar Project would not decrease groundwater supplies or interfere substantially with groundwater recharge and thus project construction would have a less-than-significant impact on the sustainable groundwater management of the basin.

Project Operation

During project operation, non-potable water will be required for activities such as panel cleaning, washing or rinsing equipment, and other operational uses. As described in Section 2.2. *Project Description*, the combined water usage from all operational activities is estimated to total 0.3 acre-feet annually over the 29.5-acre project site. This would be equivalent to 0.01 acre-foot per acre per year, which would be far less than the average consumption of 2.6 acre-feet per acre per year for

irrigated agriculture in the Water District. As discussed above under “Project Construction,” there is no source of water available at the project, either from groundwater pumping or surface water deliveries. Thus water for operational uses would be obtained from a source outside the District and hauled to the site via tanker truck. No groundwater would be pumped for operational purposes and thus the project would not decrease groundwater supplies or contribute to the lowering of the local groundwater table level.

The Utica Avenue Solar Project would result in less than one percent increase in impervious surface coverage of the project site with hard surfaces created at the equipment pads on the project site. The solar panels themselves would be elevated above ground level with permeable soils and vegetation beneath. Thus the solar arrays would not displace runoff, and rainwater falling from edges of the panels would spread to vegetated areas beneath the arrays and percolate into the ground. The minimal addition of impervious surfaces would not prevent rainfall from percolating into the underlying soils. The runoff from these surfaces would be displaced to immediately adjacent vegetated areas and would be readily absorbed into the ground. Therefore, project operation would not interfere with groundwater recharge at the project site.

Decommissioning

Untreated water would be required during decommissioning, primarily for dust control, although the volume of water required is expected to be less than required during the construction phase. Since vegetative cover would be maintained on the site during deconstruction, there would be relatively little exposed soil that would require watering for dust suppression. Similarly, water would not be required for soil conditioning during grading. The total water demand during decommissioning is expected to be substantially less than the estimated 5.9 acre-feet required during project construction. Under a conservative assumption that water demand during decommissioning would be same as during construction, water demand for decommissioning would represent a one-time use of approximately 0.2 acre-foot per acre, which would be far less than the average consumption of 2.6 acre-feet per acre per year by irrigated agriculture in the Water District. As discussed above under “Project Construction,” there is no source of water available at the project, either from groundwater pumping or surface water deliveries. Thus water for decommissioning would be obtained from a source outside the District and hauled to the site via tanker truck. In summary, no groundwater would be pumped for decommissioning purposes and thus the project would not decrease groundwater supplies or contribute to the lowering of the local groundwater table level.

In summary, the Utica Avenue Solar Project would not decrease groundwater supplies or interfere substantially with groundwater recharge, and thus the impact of the Utica Avenue Solar Project on the sustainable groundwater management of the basin would be *less than significant*.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would?*

i. Result in substantial erosion or siltation on- or off-site?

Less-than-Significant Impact with Mitigation Incorporated. There are no natural drainage courses on the Utica Avenue Solar Project site or in the vicinity, with the nearest natural water bodies being

the Kings River located approximately 8 miles north, and several intermittent streams from the Kettleman Hills to the west which terminate at the California Aqueduct, approximately 4 miles to the west. The dry channel of a former irrigation canal runs along the north edge of the project, and the Blakely Canal which runs in an easterly direction approximately one mile north of the site. The project includes no proposal to substantially modify the ground contours or surface drainage patterns on the site, or substantially alter the former irrigation channel that runs through the project site.

The installation of the project solar facilities would involve site clearing, rough grading, soil compaction, establishment of temporary construction staging area, construction of internal access driveways, and trenching for buried electrical conduits. Since the existing site topography is virtually level, only minor grading would be required for the project. Ground preparation would include minor grading followed by compaction with rollers. Finished grades would be designed to provide for positive site drainage. Vegetative cover would be retained as long as possible to minimize exposed soils and reduce potential for erosion and wind-blown dust. Once vegetation is removed, the exposed and disturbed soil would be susceptible to erosion from wind and rain. During the decommissioning phase, the soil on the project site would again be subject to exposure and disturbance resulting in potential erosion by water and wind, although existing vegetation would not be removed. Unless mitigated, the potential for erosion and siltation impacts would be potentially significant.

In order to mitigate the potential erosion and sedimentation impacts associated with project construction and decommissioning to less-than-significant levels, the following mitigation measure shall be implemented in conjunction with the Utica Avenue Solar Project:

Mitigation Measure HYD-1: Stormwater Quality Protection. *Prior to construction grading and prior to the decommissioning, the applicant shall be required to file a "Notice of Intent" (NOI) with the SWRCB to comply with the General Construction Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP for each project phase shall be prepared by a licensed engineer and shall detail the treatment measures and best management practices (BMPs) to control pollutants that shall be implemented and complied with during the construction and post-construction phases of solar development. The SWPPP(s) required for decommissioning shall specify BMPs to be implemented during that final project phase. The construction contracts for each project phase, and for the decommissioning phase, shall include the requirement to implement the BMPs in accordance with the SWPPPs. The SWPPPs will specify such practices as: designation of restricted-entry zones, sediment tracking control measures (e.g., crushed stone and/or riffle metal plate at construction entrance), truck washdown areas, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, application of mulch for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area. The SWPPPs will also prescribe treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds. Upon completion of the project, the finished grades beneath and around the finished rows of solar panels will be revegetated with a native seed mix. The reestablished vegetated cover would stabilize the soils and minimize the potential for post-construction erosion. The contracts for construction and decommissioning will include the requirement to implement the BMPs in accordance with the SWPPPs, and proper implementation of the specified BMPs is subject to inspection by the Regional Board staff.*

In summary, the implementation of Mitigation Measure HYD-1 in conjunction with the Utica Avenue Solar Project would reduce the potential erosion and siltation impacts resulting from the project to *less-than-significant* levels.

ii. 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. The Utica Avenue Solar Project would result in less than one percent increase in impervious surface coverage of the site, which in turn would result in a negligible increase in localized runoff. The impervious surfaces created by the project would include the concrete pads for inverters, and the footings and pads for the on-site transformer, switchgear, and battery storage containers, and the small paved parking area in the operations yard. The maintenance driveways of the project would be surfaced with permeable gravel to allow continued percolation of rainfall into the underlying soil. The project would cover approximately 0.2 percent of the site with impervious surfaces, leaving 99.8 percent of the site permeable for percolation of runoff, including 91.3 percent in vegetative cover and 8.5 percent in permeable gravel driveways.

Since the impervious surfaces of the equipment pads and small parking area would prevent percolation into previously permeable underlying soils, the slight volume of runoff from these facilities would be displaced to immediately adjacent vegetated areas where this very small amount of runoff would be readily absorbed into the ground. The solar panels themselves would be elevated above ground level with permeable vegetation covered soils beneath. Thus the solar arrays would not displace runoff, and rainwater falling from edges of the panels would spread to vegetated areas beneath the arrays and percolate into the ground.

The terrain of the project site is virtually flat, with a maximum gradient of 0.4 percent across the site. Under current conditions, rainfall percolates into the soil with little or no runoff leaving the site. The Utica Avenue Solar Project would result in no substantial modification of existing site grades. During normal rain events, runoff from impervious surfaces would be absorbed by the adjacent vegetated ground and percolate into the soil. During more intense or prolonged storm events, the ground would become saturated and relatively minor volumes of stormwater may temporarily pond on the surface and gradually percolate into the ground, as occurs under existing conditions. Due to the virtually level ground conditions, and the complete coverage of the site with pervious soils to absorb rainwater, the conditions that would allow for stormwater to be mobilized and concentrated in sustained runoff flows do not exist on the site under pre-project conditions. The very minor introduction of small areas of impervious surfaces distributed throughout the site would not have a discernable effect on drainage runoff patterns on the site, and would not result in flooding on or off the site.

In summary, the project's minimal alteration of the virtually level site terrain, and the very minor project coverage of the site with impervious surfaces, would have a negligible effect on runoff patterns on the site. Therefore, drainage and flooding impacts associated with the Utica Avenue Solar Project would be *less than significant*.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. As discussed in item ‘c.ii’ above, the addition of 0.2 percent impervious coverage at the Utica Avenue Solar Project site would have a negligible effect on runoff patterns at the site, and is unlikely to generate runoff flows that would leave the site. The former irrigation canal that runs through the northwest corner of the site was designed and constructed to convey large volumes of irrigation water through the area. Under existing conditions, this canal captures rainwater and incidental runoff from the immediately adjacent lands. There is no existing system of drainage ditches that conveys water from the project site to this channel. The Utica Avenue Solar Project does not require an internal stormwater drainage system since rainfall would percolate directly into the ground at the site. Given that the impervious surfaces introduced by the project would be located in the site interior, away from the former irrigation canal, there will be little if any additional runoff generated by the project at would incidentally enter this canal. Therefore, this canal would continue to have sufficient capacity to accept the minor flows that might leave the project site during a major storm event.

Regarding the issue of polluted runoff, the project would not introduce substantial sources of stormwater pollutants, such as oil, grease, metals, and debris typically associated with stormwater pollution generated on urban streets and parking lots. Any leaks of oil or lubricants from maintenance vehicles and equipment used at the project would be very minor. Therefore, the impacts associated with the potential for additional sources of polluted runoff to be generated by the project would be less than significant.

In summary, the impact associated with the potential for the Utica Avenue Solar Project to create or contribute runoff water which would exceed the capacity of stormwater drainage systems or result in substantial additional sources of polluted runoff would be *less than significant*.

iv. Impede or redirect flood flows?

No Impact. The Utica Avenue Solar Project is not located within the flood zones for the 100-year or 500-year storm events, as mapped by the Federal Emergency Management Agency (FEMA). FEMA’s Flood Insurance Rate Map (FIRM) covering the project area indicates that the project site is entirely located within Zone X, which applies to areas “[d]etermined to be outside the 0.2% annual chance (500-year) floodplain” (FEMA 2009). There is a very large area of mapped floodplain associated with the Tulare Dry Lake to the north and east of the project site. The nearest edge of Tulare Lake’s 100-year floodplain generally runs parallel and south of Blakely Canal and is approximately 0.75 miles north of the project site at its nearest point (FEMA 2009).

The California Department of Water Resources (DWR) administers the Awareness Floodplain Mapping Program, the purpose of which is to identify flood hazard areas for areas that are not mapped under FEMA’s National Flood Insurance Program (NFIP), and to provide the community and residents an additional tool in understanding potential flood hazards currently not mapped as a regulated floodplain. In DWR’s mapping, floodplains are shown simply as flood prone areas without specific depths and other flood hazard data. The nearest DWR flood zone is mapped as a long strip of land running in a general north-south direction to the west of the project site, and is located approximately 6.0 miles west of the project site at its nearest point (DWR 2020b).

In summary, no portion of the project site is subject to flooding during the 100-year or 500-year events. Since the Utica Avenue Solar Project is not subject to potential flooding hazard, the project would have *no impact* with respect to impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. Within the San Joaquin Valley, there are large areas of land that are subject to inundation flooding in the event of a dam failure at one or more reservoirs in the region. Portions of Kings County located to the east and northeast of the Utica Avenue Solar Project site are subject to potential inundation in the event of the failure of dams located in the Sierra Nevada. The Pine Flat Dam, located upstream on the Kings River, and the Terminus Dam on the Kaweah River, are the only dams in the region which, if breached, might cause flooding of significance within the affected areas of Kings County. The mapped inundation areas are shown on Figure HS-7 in the Health and Safety Element of the 2035 Kings County General Plan, and are described below.

The failure of the Pine Flat Dam would result in a potential inundation area that could extend to within approximately 6 miles northeast of the project site in the Tulare Dry Lakebed. A failure of the Terminus Dam on the Kaweah River could inundate an area extending as far south as the intersection of SR-43 and Nevada Avenue located north of the City of Corcoran, approximately 21 miles northeast of the project site (Kings County 2010e). In summary, the Utica Avenue Solar Project site is not located within the mapped inundation areas for any of the reservoirs in the region, and therefore would not be subject to risk of flooding in the unlikely event of dam failure.

As required under California Water Code Section 6161, the California Department of Water Resources (DWR), Division of Safety of Dams (DSOD) has mapped inundation zones for smaller dams and reservoirs which are under State jurisdiction. The State's inundation mapping shows that the project site is not subject to flooding resulting from failure of any of these smaller dams and reservoirs (DSOD 2022).

There are no other impoundments or diked areas near the project site, and therefore the project would not be subject to risk of flooding due to levee failure.

With respect to tsunamis, the Utica Avenue Solar Project site would not be subject to inundation from potential tsunamis generated in the Pacific Ocean due to its inland location almost 70 miles from the coast, and given its elevation at over 200 feet above sea mean level.

Seiches are seismically-induced waves in an enclosed body of water such as a lake or reservoir. Severe seismic shaking can cause impounded water to spill beyond the banks and inundate surrounding lands. There are no open bodies of water in the project vicinity. As such, there is no potential for the project site to be affected by seiches.

In summary, the Utica Avenue Solar Project would not be subject to flooding due to dam failure, tsunami, or seiche, and thus would not be at risk of release of pollutants from such potential inundation. Thus there would be *no impact* in terms of hazards associated with such events.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The Utica Avenue Solar Project site is located within the Tulare Lake Hydrologic Basin Planning Area, for which the Basin Plan was revised most recently in July 2016. The Basin Plan provides for the protection of beneficial uses of surface waters including agricultural, industrial, recreational, biological, and groundwater recharge uses. The project site does not contain any natural hydrologic features and is not hydrologically connected to a natural water feature. The project would not affect the existing surface water features, and groundwater recharge would not be affected due to the very small amount of impervious surfaces created by the project. As noted above, the project would be required to adhere to NPDES storm water runoff control requirements during construction and operation. This includes preparation and implementation of SWPPPs in order to control stormwater runoff and minimize erosion, siltation, and contamination by hazardous materials during construction, operation, and decommissioning, as required in Mitigation Measure HYD-1. The project would not include a septic tank and leachfield system. The Utica Avenue Solar Project would not include any other waste discharges that could conflict with or obstruct implementation of with the Basin Plan for the Tulare Lake Hydrologic Basin.

As discussed under “Regulatory Context” above, the Utica Avenue Solar Project site is located within the Tulare Lake Subbasin for which a Groundwater Sustainability Plan (GSP) has been jointly prepared by the five Groundwater Sustainability Agencies (GSAs) within its boundaries. The project site is located in the Southwest Kings GSA where only a minimal quantity of groundwater is pumped due to low yield and poor water quality. Thus groundwater levels, water quality, and subsidence are maintained at current levels (DWR 2020, p. ES-3). The project site is within the Dudley Ridge Water District (a member of the Southwest Kings GSA) within which no groundwater pumping occurs for the same reasons. No groundwater pumping is proposed for the project, and the minimal impervious surface coverage added by the project would have no discernable effect on groundwater recharge at the site. Therefore, the Utica Avenue Solar Project would not conflict with or obstruct implementation of the GSP for the Tulare Lake Subbasin.

In summary, the Utica Avenue Solar Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and thus would have *no impact* in this regard.

REFERENCES – HYDROLOGY AND WATER QUALITY

- DSOD 2022 California Division of Safety of Dams (DSOD). 2022. *California Dam Breach Inundation Maps*. Available at <https://fmds.water.ca.gov/maps/damim/>
- DRWD 2019 Dudley Ridge Water District (DRWD). 2019. *Profile of Dudley Ridge Water District – 2019*. June. <http://www.dudleyridgewd.org/assets/drwd-profile-2019.pdf>

DRWD 2020	Dudley Ridge Water District (DRWD). 2020. <i>Letter from DRWD to Tony Perez Regarding Ability of APN 480-030-050 to Receive Water Allocation from the District.</i> June 16. [Contained in Appendix D of this document.]
DWR 2020a	California Department of Water Resources (DWR). 2020. <i>Groundwater Sustainability Plan – 5-022.12 Tulare Lake.</i> January. https://sgma.water.ca.gov/portal/gsp/preview/42
DWR 2022	California Department of Water Resources (DWR). 2022. Floodplain Management. Awareness Floodplain Mapping Program. <i>Best Available Maps.</i> Available at http://gis.bam.water.ca.gov/bam/
FEMA 2009	Federal Emergency Management Agency (FEMA), National Flood Insurance Program, <i>Flood Insurance Rate Map (FIRM), Kings County, California and Incorporated Areas, Panels 650 of 875, Map No. 06031/C0650C,</i> Effective Date: June 16, 2009. Available at https://msc.fema.gov/portal/search
Kings County 2001	County of Kings. 2001. <i>2035 Kings County Planning Agency – Septic Tank Absorption Field Minimum Requirements.</i> May 3. https://www.countyofkings.com/home/showdocument?id=3180
Kings County 2010e	County of Kings. 2010. <i>2035 Kings County General Plan – Health and Safety Element.</i> Adopted January 26. http://www.countyofkings.com/home/showdocument?id=3118
Kings County 2021	Kings County. 2021. <i>Kings County Code of Ordinances.</i> As updated August 25, 2021. https://library.municode.com/ca/kings_county/codes/code_of_ordinances

4.11. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>Physically divide an established community?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) <i>Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Land Use Setting

The project site is set in a very sparsely populated rural area in which the dominant land use is fallow and cultivated fields and orchards on virtually level terrain. The lands to the north are characterized by the flat expanse of the Tulare Dry Lakebed, and lands to the south are primarily planted in tree crops.

Project site itself consists of a fallow field with no buildings or trees. A former agricultural irrigation canal runs across the northwest corner of the site adjacent to Utica Avenue. The lands immediately surrounding the project site consist mainly of fallow and cultivated agricultural lands along with related irrigation canals, ditches, power lines, and farm roads. Other land uses in the project vicinity include one agricultural dwelling with outbuildings located 0.5 mile to the northwest, and the Sandridge Farm complex (with no residences) located one mile east. There are no other dwellings or ranch complexes within a 5-mile radius of the project site. Interstate 5 passes through the project vicinity approximately 3 miles east, and a PG&E high-voltage transmission corridor runs parallel to Interstate 5 approximately 2 miles east of the project site.

The nearest population centers include: the community of Kettleman City located 7 miles northwest; the City of Avenal located 16 miles west; and the City of Corcoran located 20 miles northeast. The Kern County line is located 10 miles south.

Planning Context

2035 Kings County General Plan

The “Land Use Map” of the *2035 Kings County General Plan Land Use Element* shows the land use designation of the entire Utica Avenue Solar Project site as “General Agriculture – 40 acre.” This land use designation falls under the broader General Plan category of Agricultural Open Space. In addition to a range of agricultural uses and ancillary activities, the General Plan allows solar voltaic generating facilities within the Agricultural Open Space areas of the County, as set forth in LU Policy B7.1.3 (see below).

The 2035 Kings County General Plan includes the following goals, objectives and policies related to land use that are relevant to the Utica Avenue Solar Project:

Land Use Element

B. Agricultural Open Space

LU GOAL B7 Community benefiting non-agricultural uses remain compatible within the County’s Agricultural Open Space area, and are supported for their continued operation and existence.

LU OBJECTIVE B7.1 Allow compatible Open Space and Public uses of land within the Agriculture Open Space area of the County.

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.

Resource Conservation Element

G. Energy Resources

RC OBJECTIVE G1.2 Promote the development of sustainable and renewable alternative energy sources, including wind, solar, hydroelectric and biomass energy.

RC Policy G1.2.2: Encourage and support efforts to develop commercial alternative energy sources in lower priority agricultural lands within Kings County, when appropriately sited.

RC Policy A1.2.5: Site new large-scale alternative energy facilities where they can be served by existing electrical transmission lines, or where such lines can be located and designed to minimize visual, environmental, and agricultural disturbances.

RC Policy A1.2.7: 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 (superseded by the Kings County Development Code).

Kings County Development Code

As designated in the Kings County Zoning Plan, the entire Utica Avenue Solar site is zoned “AG-40 General Agricultural-40” (Kings County 1964). As provided in Article 4 of the Kings County Development Code, commercial solar photovoltaic electrical generating facilities are permitted in this zoning district subject to a granting of a Conditional Use Permit by the Kings County Planning Commission (Kings County 2020).

Article 11, Section 1112(B)(2) of the Kings County Development Code requires that commercial-scale solar photovoltaic electrical facilities conform with specified standards. Most of these standards relate

to agricultural land. The required standards, and the project’s conformity with the standards, are addressed in detail in Section 4.2. *Agriculture and Forestry Resources*.

Environmental Evaluation

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

No Impact. The Utica Avenue Solar Project site is not located within or near an established community, so the proposed solar facilities would not physically divide any such community. As such, there is *no impact* in this regard

b) *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The potential for the Utica Avenue Solar Project to conflict with the Kings County 2035 General Plan and Kings County Development Code is discussed below.

Kings County

General Plan

The 2035 Kings County General Plan designates the entire 29.5-acre Utica Avenue Solar Project site as “General Agriculture – 40 acre.” This land use designation falls under the broader General Plan category of Agricultural Open Space which permits a range of agricultural uses and ancillary activities, as well as solar voltaic generating facilities. Therefore, the planned installation of solar PV generating facilities within the project site would be consistent with the General Plan Land Use Map.

Zoning

As designated in the Kings County Zoning Plan, the entire Utica Avenue Solar Project site is currently zoned “AG-40 General Agricultural-40.” As provided in Article 4 of the Kings County Development Code, utility-scale photovoltaic electricity generation is a conditionally permitted use in this agricultural zoning district. Therefore, the Utica Avenue Solar Project would be consistent with the development code upon the granting of the subject Conditional Use Permit for the project.

Section 1112.B.2 of the Kings County Development Code establishes specific requirements that must be satisfied for the granting of a Conditional Use Permit for a solar generating facility. Since most of the requirements pertain to agriculture, the project’s ability to meet each of the requirements is addressed in Section 4.2. *Agriculture and Forestry Resources*. In summary, all of the applicable requirements in Section 1112.B.2 would be satisfied by the Utica Avenue Solar Project.

In summary, the Utica Avenue Solar Project would not conflict with any land use plan, policy, or regulation and therefore would have *no impact* in this regard.

As discussed throughout this document, the Utica Avenue Solar Project would not conflict with any other plan, policy, or regulation adopted for the purpose of avoiding or mitigating and environmental effect.

REFERENCES – LAND USE AND PLANNING

- Kings County 1964 County of Kings. 1964. *Zoning Plan – County of Kings California*. Adopted April 7, 1964. [Available for review at Kings County Community Development Agency.]
- Kings County 1996 County of Kings. 1996. *Kings County Right to Farm Ordinance*. Kings County Code of Ordinances, Sections 14-38. As amended by Ordinance No. 546.1, effective May 30, 1996. Notice and Disclosure Form available at <http://www.countyofkings.com/home/showdocument?id=4012>
- Kings County 2010a County of Kings. 2010. *2035 Kings County General Plan – Land Use Element*. Adopted January 26, 2010. <http://www.countyofkings.com/home/showdocument?id=3110>
- Kings County 2020 Kings County. 2020. *Kings County Development Code. Kings County Code of Ordinances, Appendix A - Ordinance No. 668.15*. Dated July 14, 2020; Effective August 14, 2020. <https://www.countyofkings.com/departments/community-development-agency/information/zoning-ordinance>
- Kings County 2021 County of Kings. 2019. *Kings County Code of Ordinances*, as amended through August 25, 2021. https://www.municode.com/library/ca/kings_county/codes/code_of_ordinances

4.12. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Southern Kings County and nearby areas of western Fresno County include several oil and natural gas fields. The project site is located in the former Dudley Ridge Gas Field, which is identified as “abandoned” by California Division of Geological, Energy and Mineral Resources (CalGEM). All of the gas wells drilled in the Dudley Ridge Gas Field have either been plugged or are idle “dry holes.” Within one-half mile of the project site, there are 9 plugged gas wells, the nearest of which are located 200 feet east and 150 feet west of the project site. The nearest active oil wells are located approximately 5 miles west in the Kettleman North Dome oil field (CalGEM 2022).

Kings County includes 11 former mineral extraction sites as mapped by the California Division of Mine Reclamation, consisting mainly of former sand and gravel quarries, and also including one former gypsum mine. All of these surface mining operations have been reclaimed (CGS 2022). The Kings County General Plan Resource Conservation Element notes that a small mercury mine once operated in southwestern Kings County near Parkfield but is now closed (Kings County 2010b). The nearest active surface mining sites are in western Fresno County and consist of two large sand and gravel operations near Coalinga, located approximately 23 miles and 32 miles northwest of the project site (DMR 2022). There are no sand and gravel deposits in the project area.

Regulatory Context

State of California

California Geologic Energy Management Division

The California Geologic Energy Management Division (CalGEM) of the Department of Conservation is responsible for supervising the drilling, operation, maintenance, plugging, and abandonment of oil, gas, and geothermal wells. CalGEM’s regulatory program promotes responsible development of oil, natural gas, and geothermal resources in California through sound engineering practices, prevention of pollution, and implementation of public safety programs. CalGEM requires the land developments avoid building over or near plugged or abandoned oil and gas wells, or requires the remediation of wells to current CalGEM standards.

Kings County

Kings County General Plan

The 2035 Kings County General Plan includes the following goals, objectives and policies related to mineral resources that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

G. Energy Resources

- RC GOAL G1 Encourage the development of oil and gas energy sources provided that they do not degrade environmental quality.
- RC OBJECTIVE G1.1 Ensure the restoration of oil and gas well sites to a pre-drilling condition after the completed use of a site.
- RC Policy G1.1.1: Require the timely reclamation of oil and gas development sites upon termination of such activities to facilitate the conversion of the land to its primary land use as designated by the General Plan. Reclamation costs shall be borne by the well operator.
- RC Policy G1.1.2: Additional restrictions in the General Agricultural areas of the County will not be imposed on oil and gas exploration as long as the oil companies involved continue to restore sites to their original condition after use.

Environmental Evaluation

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. As discussed under ‘Environmental Setting’ above, there are no mineral extraction sites or oil and gas wells on the project site or in the vicinity. Therefore, the construction of the Utica Avenue Solar Project would have *no impact* upon availability of known mineral resources that would be of value to the region and the residents of the State.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. Mineral resources are addressed in the Resource Conservation Element of the 2035 Kings County General Plan. The General Plan recognizes that oil and natural gas production in the County has diminished and does not designate any areas of the County for oil and gas recovery. Similarly, the General Plan notes the low potential for surface mining in the County and does not designate any areas of the County as important aggregate or other mineral recovery sites (Kings County 2010b). The California Geologic Service (CGS) produces Mineral Land Classification (MLC) studies that identify areas of the State with potentially important mineral resources. MLC studies

have not identified potentially important mineral resource areas that extend west of Hanford in Kings County (CGS 2022). Likewise the CGS has not classified any lands in Kings County as Mineral Resource Zones (MRZs) under the Surface Mining and Reclamation Act (SMARA). Therefore, the Utica Avenue Solar Project would have *no impact* with respect to loss of availability of important mineral recovery sites designated on any land use plans.

REFERENCES – MINERAL RESOURCES

- CalGEM 2022 California Department of Conservation (CDOC), Geologic Energy Management Division (CalGEM). 2022. *Well Finder*. February.
<https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-119.89116/36.18388/12>
- CGS 2022 California Department of Conservation (CDOC), California Geologic Survey (CGS). 2021. *Mines Online*. February.
<https://maps.conservation.ca.gov/mol/index.html>
- DMR 2022 California Department of Conservation (CDOC), Division of Mine Reclamation (DMR). 2022. *CGS Information Warehouse: Mineral Land Classification*. January.
<https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>
- Kings County 2010b County of Kings. 2010. *2035 Kings County General Plan – Resource Conservation Element*. Adopted January 26, 2010.
<http://www.countyofkings.com/home/showdocument?id=3112>

4.13. NOISE

<i>Would the project result in:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Generation of excessive groundborne vibration or groundborne noise levels?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

The discussion of potential noise and vibration impacts in this section is was prepared with technical assistance from Illingworth & Rodkin, Acoustics and Air Quality Consultants, in March 2022.

Introduction

Background Information on Acoustics and Noise Measurement

Noise may be defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. The objectionable effects of noise can be attributed to either pitch or loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

Sound levels are usually measured and expressed in decibels (dB), a unit of measurement that indicates the relative amplitude of sound pressure. Zero on the decibel scale is based on the lowest sound level that a healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while an increase of 20 decibels results from 100 times the energy, and a 30 decibel increase results from an energy increase of 1,000 times. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness. Thus noise at zero decibels is barely audible, while noise at 120 to 140 decibels is painful and may cause hearing damage.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level or dBA*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table NOI-1. Because sound levels can vary markedly over a short period of time, a method for describing

either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. Similarly, noise levels exceeded during 10 percent of the time are expressed as L_{10} , with noise levels exceeded 50 percent of the time expressed as L_{50} . Maximum noise levels during a given measurement period are expressed as L_{max} , while minimum noise levels are expressed as L_{min} . Additional metrics are described in Table NOI-2.

Noise measurement equipment includes an electrical filter to reflect the fact that human hearing is less sensitive to low and very high frequencies than sound frequencies in the mid-range. The sound levels measured in this manner produce the A-weighted sound levels that are typically expressed as dBA. Unless otherwise noted, all noise levels indicated in this section are A-weighted, although the metric may be abbreviated to dB for simplicity.)

Since the sensitivity to noise increases during the evening and at night (because excessive noise interferes with the ability to sleep), 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level (CNEL)* is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 PM to 10:00 PM) noise levels and a 10 dB penalty added to nighttime (10:00 PM to 7:00 AM) noise levels. The *Day/Night Average Sound Level (L_{dn})* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period (I&R 2014b).

Vibration

Vibration is an oscillatory motion through a solid medium, in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by heavy equipment or traffic on rough roads attenuates rapidly with distance from the source of the vibration so that potential impact areas are usually confined within short distances (e.g., 200 feet or less) from the source (USDOT 2006).

TABLE NOI-1
TYPICAL NOISE LEVELS IN THE ENVIRONMENT

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Impact Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	
	0 dBA	Threshold of human hearing

Source: Illingworth & Rodkin

TABLE NOI-2
DEFINITIONS OF ACOUSTICAL TERMS

Term	Definitions
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Illingworth & Rodkin

Regulatory Setting

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives and policies related to noise that are relevant to the Utica Avenue Solar Project:

Noise Element

B. Non-Transportation Noise Protection

N GOAL B1 Protect the economic base of Kings County by preventing the encroachment of noise-sensitive land uses into areas affected by existing noise-producing uses. More specifically, to recognize that noise is an inherent byproduct of many land uses, including agriculture, and to prevent new noise-sensitive land uses from being developed in areas affected by existing noise-producing uses.

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) will be affected by or include non-transportation noise sources and exceed the County’s “Non-Transportation Noise Standards” (Table N-8)(next page). 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 will still be required to adhere to applicable County *Noise Element* standards.

C. Excessive Noise Prevention

N GOAL C1 Provide sufficient noise exposure information so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes, and allow flexibility in the development of infill properties which may be located in elevated noise environments.

N OBJECTIVE C1.1 Ensure the sufficient provision of project and site noise information is available along with alternative mitigation approaches to better inform County staff and land use decision makers.

Table N-8 Non-Transportation Noise Standards Average (Leq) / Maximum (Lmax)¹				
Receiving Land Use	Outdoor Area ²		Interior ³	Notes
	Daytime	Nighttime	Day & Night	
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5, 6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	55 / 75	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 / 70	6

Notes:

1. The Table N-8 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 the standards of Table N-8, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive areas are defined acoustic terminology section.
3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.

N Policy C1.1.1: All noise analyses prepared to determine compliance with the noise level standards contained within this *Noise Element* shall be prepared in accordance with the County’s “Requirements for Acoustical Analyses Prepared in Kings County” (Table N-9).

N Policy C1.1.2: Where noise mitigation measures are required to satisfy the noise level standards of this *Noise Element*, emphasis shall be placed on the use of setbacks and site design, prior to consideration of the use of noise barriers.

Kings County Code of Ordinances

Article 10 of the Code of Ordinances sets forth requirements and procedures for noise abatement in the County. Section 15-211 (Certain Noise Prohibited) provides as follows:

“No person shall make, suffer, or permit upon any premises owned, occupied or controlled by such person any noises or sounds which are physically annoying to the senses of persons of

ordinary sensitivity, or which are so harsh or so prolonged or unnatural or unusual in their use, time or place, as to cause physical discomfort to neighbors or to interfere with the comfortable use and enjoyment of life or property, or which constitutes a public or private nuisance, within any unincorporated territory of the County of Kings.

The Code of Ordinances provides no further detail on acceptable noise levels or limits on hours for operational or construction noise sources. As such, the General Plan Noise Element requirements and standards (reproduced above) are controlling with respect to quantitative noise thresholds.

Existing Noise Environment

The existing noise environment in the project area is typical of rural agricultural environments. The primary noise sources in the project vicinity include: 1) traffic on a Utica Avenue and; 2) agricultural equipment and crop dusters.

There is one noise-sensitive receiver, a rural residence, located approximately 2,700 feet northwest of the project site. There are no other noise-sensitive receivers within 5 miles of the project site.

Most of the traffic generated by the project will travel to the project site from the west via Utica Avenue. Based on existing traffic volumes on Utica Avenue, the day-night average noise level along the nearby segment of this County road was estimated by Illingworth & Rodkin to be 60 dBA Ldn at a distance of 50 feet from the roadway centerline. Typical daytime hourly average noise levels are estimated to be approximately 50 to 62 dBA Leq.

Environmental Evaluation

a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less-than-Significant Impact. Noise would be generated during the construction, operations, and decommissioning phases of the Utica Avenue Solar Project. The potential for temporary and permanent noise sources from the project to exceed applicable noise standards is discussed below for each phase of the project.

Construction

During the construction phase, the two main sources of noise from the project would be on-site grading and construction, and from off-site traffic generation, each of which is discussed in turn below.

On-Site Construction Noise

The construction noise levels would depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance

between construction noise sources and noise sensitive receptors. In accordance with the 2035 Kings County General Plan Noise Element policies, a significant noise impact would occur if construction noise levels exceed 55 dBA L_{eq} , and if they exceed the ambient noise environment by 5 dBA L_{eq} or more.

Construction noise levels would be highest during site grading, excavation, and installation of solar equipment. Hourly average noise levels generated by construction equipment associated with the project are calculated to range from 85 dBA L_{eq} to 87 dBA L_{eq} measured at a distance of 50 feet, assuming that all equipment proposed for each construction phase are operating simultaneously. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. The nearest noise-sensitive residence is located approximately 2,700 feet to the northwest at its nearest point. At this distance, the maximum construction noise levels reaching the nearest residences would range from 50 dBA L_{eq} to 52 dBA L_{eq} , taking into consideration the attenuation of sound with distance from the noise source. These construction-related noise levels would be below the applicable County noise standards and would be lower than ambient daytime noise levels at the nearest receptors. Therefore, project construction activities would not exceed applicable County noise standards and the impact would be *less than significant*.

Construction Traffic

The analysis of construction traffic noise used a baseline of existing Average Daily Traffic (ADT) volumes on the affected roadway segments, and added worker and truck volumes generated during project construction. It was calculated that the highest noise level increase on the Utica Avenue due to project construction traffic would be less than 5 dBA L_{dn} /CNEL above existing traffic noise conditions without the project.

Under 2035 Kings County General Plan Noise Policy B1.2.1, the project would result in a significant noise impact if: a) the noise level increase is 5 dBA L_{dn} /CNEL or greater, where the pre-project noise level is less than 60 dBA L_{dn} /CNEL; or b) the noise level increase is 3 dBA L_{dn} /CNEL or greater, where the pre-project noise level between 60 and 65 dBA L_{dn} /CNEL; or c) the noise level increase is 1.5 dBA L_{dn} /CNEL or greater, where the pre-project noise level is 65 dBA L_{dn} /CNEL or greater (Kings County 2010f).

The receptor that would be most affected by project construction traffic would be the rural residence located 2,700 feet northwest of the project. Project construction traffic would result in a 22 percent increase in traffic volumes above baseline conditions (in 2022) along this segment of Utica Avenue during the peak construction period. This would result in a 1 dBA L_{dn} increase in noise levels along this roadway segment. The affected residence is located approximately 780 feet from the centerline on Nevada Avenue. The ambient noise level at the building facade is estimated to be 42 dBA L_{dn} under baseline conditions in 2022. During peak construction, traffic noise levels at this residence would increase to 43 dBA L_{dn} . The 1 dBA L_{dn} increase in noise levels along this roadway segment would not exceed the 5 dBA L_{dn} noise level threshold used to assess the significance of noise impacts where pre-project noise levels are less than 60 dBA L_{dn} /CNEL, resulting in a less than significant impact under the County's standards.

In summary, the construction traffic generated by the Utica Avenue Solar Project would not exceed the County's applicable noise standards at the most affected sensitive receptors. Therefore, the impact would be *less than significant*.

Project Operations

During the operational phase of the Utica Avenue Solar Project, the two main sources of noise would be from on-site activities and from off-site traffic generation, each of which is discussed in turn below.

On-Site Noise Sources

Noise sources at the project site would include inverters and transformers necessary to convert the generated power to collection voltage. The 3 MW Utica Avenue Solar Project would include a total of 3 inverters and one transformer. The predicted noise level attributable to one inverter/transformer is 52 dBA L_{max}/L_{eq} measured at a distance of 50 feet from the equipment. The operation the 3 inverters/transformers at the project would result in an estimated worst-case noise level of 57 dBA L_{max}/L_{eq} , measured at a distance of 50 feet.

The project would also include a battery storage facility located near the project entrance. Based on preliminary plans, the facility would include 3 storage battery units, each enclosed within 40-foot long cargo containers). Each battery storage unit would be self-contained and would include racks, switchboards, and integrated HVAC units. The battery units would be served by an inverter and transformer located on a separate pad outside the containers. Thus the battery storage system would consist of 3 battery containers and 1 inverter/transformer set. The primary noise source would be the HVAC units on each container, which would typically produce noise levels of 68 dBA at a distance of 50 feet during full operation. A typical step transformer has a sound rating of 60 dBA at 5 feet, and a typical power inverter has a noise rating of 77 dBA at 6 feet. Illingworth & Rodkin calculated that the combined noise level from full operation of all of the planned energy storage elements under this configuration would be 73 dBA L_{max}/L_{eq} at 50 feet. The nearest residential receptor to the battery storage facility would be located approximately 2,700 feet northwest of the facility and would be exposed to noise levels of 42 dBA L_{max}/L_{eq} or less.

2035 Kings County General Plan, Noise Policy B1.1.1 requires that appropriate noise mitigation measures be included in a proposed project design when the proposed new use will include non-transportation noise sources that would exceed the County's "Non-Transportation Noise Standards" (Noise Element Table N-8). The daytime noise limits enforced at residential properties are 75 dBA L_{max} and 55 dBA L_{eq} (Kings County 2010f). The inverters/transformers at the project would operate only during daytime hours when the solar facility is generating power. There would be no noise generated by the project at night, when County noise limits are 5 dBA more restrictive (i.e., 70 dBA L_{max} and 50 dBA L_{eq}).

Noise from "point" sources decreases at a rate of 6 dBA with each doubling of the distance between the noise source and receptor. Based on the worst-case noise level estimate of 73 dBA L_{max}/L_{eq} at a distance of 50 feet from the project solar fields (i.e., inverters/transformers), predicted noise levels at the nearest residence located 2,700 feet from the project site are calculated to be 38 dBA L_{max}/L_{eq} . In summary, the estimated noise levels from project operations would be below the County's 75 dBA L_{max} and 55 dBA L_{eq} noise limits for residential uses. Therefore, the operational noise from the Utica Avenue Solar Project would not exceed applicable noise standards at the nearest sensitive receptors, and the impact would be *less than significant*.

Operational Traffic Noise

Traffic generated during project operations would be very light, given the small number of workers who would travel to the site on an intermittent basis. It was calculated that the highest traffic noise increase attributable to project operational traffic on the affected roadways would be less than 0.1 dBA $L_{dn}/CNEL$ above existing traffic noise conditions without the project at the most affected roadway – Utica Avenue. The noise levels would be well below the applicable impact thresholds, discussed above, and would not be noticeable to the potentially affected sensitive receptors. Therefore, the operational traffic generated by the Utica Avenue Solar Project would not result in a substantial permanent increase in ambient noise levels in the project vicinity, and the impact would be *less than significant*.

Decommissioning

Noise levels generated during deconstruction activities would be similar to those generated during construction except that some of the noisiest construction equipment, such as pile drivers and vibratory rollers, would not be used during decommissioning. As is the case with construction noise, the on-site noise generated during decommissioning would be well below County noise standards at the nearest sensitive receptors. Traffic volumes generated during decommissioning would be similar to those associated with construction, and the resulting noise levels would be well below applicable County standards as well. Therefore, the decommissioning activity and traffic associated with the project would not result in a substantial temporary increase in ambient noise levels in the project vicinity, and the impact would be *less than significant*.

In summary, the noise generated during the construction, operations, and decommissioning phases of the Utica Avenue Solar Project would not exceed applicable noise standards, and the impact would be *less than significant*.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-than-Significant Impact. The construction of the Utica Avenue Solar Project may generate perceptible vibration in the immediate vicinity of the project site when heavy equipment or impact tools are used. Groundborne vibration levels would be highest during site preparation activities and when the solar arrays are installed, given that the cylindrical steel posts (or H-beams) will be driven into the ground using truck-mounted vibratory drivers.

Vibration is measured as peak particle velocity (PPV) in inches per second. The equipment to be used at the project site that would result in the greatest vibration includes sonic pile drivers, vibratory rollers, and bulldozers. The vibration levels typically produced by a sonic pile driver can reach 0.170 in/sec PPV at a distance of 25 feet. Vibratory rollers and large bulldozers typically generate vibration levels ranging from 0.089 to 0.210 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings that are structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major

concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened (Caltrans 2020, p. 38). No ancient buildings or buildings that are documented to be structurally weakened are present near the project site. Therefore, the applicable impact threshold for groundborne vibration would be levels exceeding 0.3 in/sec PPV at the nearest receptors.

Within the project vicinity, the nearest structures to the construction activity would be: 1) the ranch dwelling located on the north side of Utica Avenue, located at least 0.5 mile northwest; and 2) non-residential structures at the Sandridge Farms complex, located 0.8 mile east of the nearest project boundary. The potential for greatest vibration would be during heavy equipment movement and vibratory pile driving of the support posts for the solar arrays, which would generate vibration levels of 0.210 and 0.170 in/sec PPV, respectively, at 25 feet from the source. At a distance of 0.5 mile, these vibration levels would not be measurable or detectable at the nearest receiver. These vibration levels would be well below the 0.3 in/sec PPV impact threshold for sound structures, and would also be well below the 0.08 in/sec PPV limit applicable to buildings where structural damage is a major concern. The majority of construction activity at the project site would occur well beyond these distances from the nearest structures. Therefore, groundborne vibration from project construction would have *no impact* on existing structures in the project vicinity.

People can also be adversely affected by excessive vibration levels. The level at which humans begin to perceive vibration is 0.015 inches per second. Vibrations at 0.2 inches per second are considered bothersome to most people, while continuous exposure to long-term PPV is considered unacceptable at 0.12 inches per second. As noted above, the nearest residential receptor is at least 0.5 mile northwest of the project site. At this distance, the greatest vibration from the nearest project construction activity would not be perceptible to residents. Therefore, project construction activities would not generate excessive vibration levels.

In summary, the heaviest construction equipment that would be used for construction of the Utica Avenue Solar Project would produce vibration levels that would be far below the vibration levels necessary to cause damage to the nearest off-site buildings, or to be perceptible to persons at the nearest off-site residence. Therefore, the project would not generate excessive groundborne vibration levels. As such, the potential groundborne vibration and noise impacts due to construction activities associated with the Utica Avenue Solar Project would be *less than significant*.

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

Less-than-Significant Impact. The Utica Avenue Solar Project is not located near a public airport or public use airport, and is not located within an airport land use plan area. The nearest public use airports are at Hanford, Coalinga, and Harris Ranch, which are all located from 29 to 32 miles from the project site. The airfield at Naval Air Station Lemoore (NASL) is located 25 miles north of the Utica Avenue Solar Project site. There are no operational private airstrips within a 10-mile radius of the project site.

The nearest major aviation facility to the project site is the airfield at Naval Air Station Lemoore (NASL), which is at least 25 miles north of the project site. The project site is located at least 15 miles south of the NASL flight pattern for landing approaches, and thus is well outside the areas mapped as being subject to military aircraft noise levels greater than 60 dBA CNEL, as mapped in the NAS Lemoore Joint Land Use Study (JLUSPC 2011, p. 2-11). The Kings County General Plan noise standard for the noise-sensitive outdoor areas of commercial or industrial developments is 65 dBA CNEL if the noise is from transportation sources such as aircraft overflights (Kings County General Plan Noise Element Table N-7). The project site is not exposed to aircraft noise levels of 65 dBA CNEL or higher. Additionally, the proposed solar facilities are not considered noise-sensitive land uses and will have no permanent employees stationed on-site that would utilize outdoor use areas. Therefore, the project would not expose workers on the project site to excessive noise levels from flight operations as NAS Lemoore. As such, the impact of the Utica Avenue Solar Project's exposure to noise from airport operations would be *less than significant*.

The Utica Avenue Solar Project site is not located within the immediate vicinity of a private airstrip. The nearest private airstrip is located 16 miles to the northwest near the City of Avenal. As such, the project would not expose people working at the project site to excessive noise levels associated with the operation of a private airstrip. Therefore, the Utica Avenue Solar Project would be associated with *no impact* due to noise generated by private airstrips in the vicinity.

In summary, the impact resulting from the Utica Avenue Solar Project's exposure to noise from airport operations associated with a private airstrip or public airport or public use airport or would be *less than significant*.

REFERENCES – NOISE

- Caltrans 2020 California Department of Transportation (Caltrans). 2020. *Transportation and Construction Vibration Guidance Manual*. April. <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>
- JLUSPC 2011 Naval Air Station Lemoore Joint Land Use Study Policy Committee, 2011. NAS Lemoore Joint Land Use Study – Final Release. August 30. https://www.kingscog.org/jlus_docs#B93D5C3D-9848-4BBF-8A50-E7769AD28E68
- Kings County 2010f County of Kings. 2010. *2035 Kings County General Plan – Noise Element*. Adopted January 26, 2010. <http://www.countyofkings.com/home/showdocument?id=3120>
- Kings County 2021 County of Kings. 2019. *Kings County Code of Ordinances*, as amended through August 25, 2021. https://www.municode.com/library/ca/kings_county/codes/code_of_ordinances

4.14. POPULATION and HOUSING

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Induce substantial unplanned 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)?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

- a) Would the project induce substantial unplanned 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 Utica Avenue Solar Project would not include a residential component so it would not directly induce population growth in the area. The project would involve a maximum construction workforce of about 65 workers during the peak period of construction. Most construction workers are expected to be drawn from the existing labor pool in the region. For construction management staff and specialized workers who may reside outside the area, there is an ample supply of temporary lodging in Kettleman City and other nearby communities. Thus project construction would not directly result in population growth in the area.

Upon completion, no permanent operational staff would be stationed at the solar facility, with two workers visiting the site on any given day to perform inspection, maintenance, repair, and panel cleaning duties. Since the solar facility operations would be managed by a contractor, the project would likely be one of several solar facilities serviced by these workers. Thus the project would result in the need for additional personnel only if it resulted in the contractor exceeding its capacity to continue to service its client solar facilities at existing staffing levels with the addition of the Utica Avenue Solar Project. In the event that new workers are needed to service the project, such workers may need to relocate to the area for such new employment opportunities. According to the most recent census estimates (2019), there are approximately 49,253 vacant housing units in the project’s four county area (Kings, Kern, Fresno, and Tulare counties), most of which are within a 50-mile radius of the project site, representing an overall vacancy rate of 5.9 percent (U.S. Census 2019). Thus it is anticipated that any operational staff seeking to relocate to the area would find ample housing choice from the existing inventory of homes in the region, and no new housing would be required. Therefore, the Utica Avenue Solar Project would result in *no impact* with regard to potential inducement of substantial unplanned population growth in the area.

The project would not result in the extension or roads or urban utilities (e.g., water and sewer) to lands not currently served by urban infrastructure, and thus would not induce unplanned urban

development into the rural area of the County. Therefore, the project would not induce indirect growth through extension of urban infrastructure.

In summary, the Utica Avenue Solar Project would result in *no impact* with respect to growth inducement, either by way of population growth or by extension of urban infrastructure.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no residential buildings on or near the Utica Avenue Solar Project site. The nearest dwelling is located 0.5 miles to the northwest, and there are no other residences within a 5-mile radius of the site. No residential properties would be removed or encroached upon as a result of the project. Therefore, the Utica Avenue Solar Project would result in *no impact* with regard to displacement of existing people or housing.

REFERENCES – POPULATION AND HOUSING

- U.S. Census 2019 U.S. Census Bureau. 2019. *Selected Housing Characteristics: 2019: ACS 1-Year Estimated Data Profiles*. (Kings, Fresno, and Tulare Counties).
<https://data.census.gov/cedsci/table?q=Kings%20County%20California%20Housing&tid=ACSDP1Y2019.DP04&hidePreview=false>
<https://data.census.gov/cedsci/table?q=Fresno%20County%20California%20Housing&tid=ACSDP1Y2019.DP04&hidePreview=false>
<https://data.census.gov/cedsci/table?q=Tulare%20County%20California%20Housing&tid=ACSDP1Y2019.DP04&hidePreview=false>
<https://data.census.gov/cedsci/table?q=Kern%20County%20California%20Housing>

4.15. PUBLIC SERVICES

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i>				
<i>i) Fire protection?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>ii) Police protection?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>iii) Schools?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>iv) Parks?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>v) Other public facilities?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Fire Protection Services

Fire protection for the project area is provided by the Kings County Fire Department (KCFD), which operates 10 fire stations and one headquarters office in Hanford with 88 full-time employees. The Fire Department responds to over 5,100 calls annually, averaging 14 calls daily (KCFD 2022).

The nearest KCFD fire stations to the project site are KCFD Station #9, located in Kettleman City approximately 9 miles northwest of the Utica Avenue Solar Project site, and Station #10, located in Stratford approximately 15 miles north of the site. Response times from the two nearest stations would range from 10 minutes to 20 minutes. Backup response would be provided by Station #12 (Avenal) and Station #11 (Corcoran). The KCFD maintains mutual aid agreements with the fire departments of Lemoore and Hanford, and also with the NAS Lemoore Fire Department and Santa Rosa Rancheria Fire (Kings County 2010e).

The KCFD's other responsibilities include: review of building plans for compliance with fire safety requirements; emergency medical response; and implementation of the County's emergency management plan. Each station conducts assessments of proposed industrial and business facilities to assure compliance with safety and design capacity requirements. Fire stations also handle weed abatement on a complaint basis (KCFD 2022).

The KCFD provides first responder emergency medical service to all County residents. This service does not include advanced life support (paramedic) or emergency transport, which is provided by an exclusive private contractor (currently American Ambulance). Kings County contracts directly with the ambulance company, while the Central California Emergency Medical Services Agency (CCEMSA) is responsible for ensuring adequate levels and quality of ambulance service the region. The ambulance services nearest to the project site are located in Corcoran, Lemoore and Hanford.

The Potential Fire Hazards map of the Kings County General Plan Health and Safety Element (General Plan Figure HS-9) shows the project site as being subject to “Moderate Threat” (Kings County 2010e). The Utica Avenue Solar Project site is not included in a Fire Hazard Severity Zone (FHSZ) as mapped by the California Department of Forestry and Fire Protection. In CAL FIRE’s mapped Local Responsibility Area (LRA), the nearest Moderate Fire Hazard Zone includes the area between the California Aqueduct and SR-33 located approximately 4 miles west of the project site at its nearest point. In CAL FIRE’s mapped State Responsibility Area (SRA), the nearest Moderate Fire Hazard Zone includes the area west of SR-33 located at least 11 miles west of the project site (CAL FIRE 2022).

Law Enforcement Services

Law enforcement services in the project area are provided by the Kings County Sheriff’s Office (KCSO) from its headquarters at 1444 West Lacey Boulevard located approximately 30 miles northeast of the project site. The Department currently has 148 sworn officers and 101 non-sworn personnel. The County is divided into six beat districts with five Sheriff’s substations located throughout Kings County. The nearest Sheriff’s substation to the project site is located in Kettleman City. Each beat district has at least one deputy sheriff on duty at all times to serve the unincorporated communities and surrounding County areas. The KCSO has mutual-aid agreements statewide. The Department’s response time goal for priority emergency calls is 20 minutes (Kings County 2010e). The response time to the project site would be a maximum of 15 to 20 minutes, and would be quicker when the area deputy is on patrol nearby. The principal crimes committed in Kings County in 2020 were larceny, burglary, and aggravated assault (CDOJ 2022).

The California Highway Patrol (CHP) provides traffic enforcement along State highways and County roadways within Kings County. The nearest CHP area offices are located in Hanford and Coalinga.

Other Public Services and Facilities

Other public services provided in the project area include schools, parks and recreation, libraries, and social services, among other things. The Utica Avenue Solar Project would generate little or no demand for these public services and their related facilities.

Regulatory Context

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goal, objectives and policies related to fire protection and police services that are relevant to the Utica Avenue Solar Project:

Health and Safety Element

A. Community Safety

HS GOAL C1	Ensure the protection and wellbeing of residents, visitors and businesses that enables long term sustainability for future generations.
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HS OBJECTIVE C2.1 Provide sufficient law enforcement presence within each community district and other unincorporated areas of the County to protect residents, businesses, and visitors from personal and property crimes.

HS Policy C2.1.2: Promote community safety by ensuring communities have sufficient sheriff coverage to provide 20 minute or faster response times to priority emergency calls.

HS OBJECTIVE C2.2 Provide quality fire protection services throughout the County by the Kings County Fire Department, and Fire safety preventative measures to prevent unnecessary exposure of people and property to fire hazards in both County Local Responsibility Areas and State Responsibility Area.

HS Policy C2.2.2: Development proposals and code revisions shall be referred to the County Fire Department for review and comment.

HS Policy C2.2.4: Review development proposals according to California Department of Forestry and Fire Protection “Fire Hazard Severity Zone Maps” to determine whether a site is located within a Very High Fire Hazard Severity Zone and subject to Wildland-Urban Interface Fire Area Building Standards and defensible space requirements as adopted under Senate Bill 1595 and effective January 1, 2009.

Land Use Element

LU Policy D1.4.9: Development shall pay County Public Facility Impact Fees, as established by County Ordinance 633, at the time a building permit is issued.

Kings County Code of Ordinances

Kings County Building Code

The County Code of Ordinances, at Section 5-36, adopts and incorporates by reference the 2013 Edition of the California Building Standards Code (CBSC) as the Kings County Building Code, which is applicable to all building construction in the Kings County.

Fire Safety

Under Section 10-7 of the County Code, the County Fire Department applies the fire safety standards of the National Fire Protection Association and the American Insurance Association, successor to the National Board of Fire Underwriters.

Kings County Public Facility Impact Fees

On June 21, 2005, the Kings County Board of Supervisors adopted Ordinance 633 which enabled public facilities fees to be levied on new development within the County. The fee structure was based on a Public Facilities Impact Fees report and was established to maintain existing levels of service through the year 2025. The public facilities fees are allocated to specific uses for protection and public services including: Countywide Public Protection, Sheriff, Fire, Library, and Animal Control.

Kings County Improvement Standards

The Kings County Improvements Standards serves as an engineering reference for Kings County staff and private parties in the design and construction of improvements for public works projects and private development improvements. The standards include engineering design specifications for the construction of streets, water supply systems, storm drainage, and sewage disposal.

Environmental Evaluation

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:

i) Fire protection?

No Impact. Construction and operation of the Utica Avenue Solar Project is not expected to result in an increase in demand of fire protection services leading to the construction of new or physically altered facilities.

Fire Hazards During Construction

During construction, there is a small risk of construction equipment and materials posing potential fire hazards. Construction of the solar facilities, electrical equipment, and power collection lines would involve the use of heavy construction equipment, vehicles, generators, and hazardous materials (e.g., fuels, lubricating oils, and welding materials), which pose potential fire hazards. The risk of fire would be primarily related to refueling and operating vehicles and equipment off internal driveways where dry vegetation could be ignited. Welding activities also have the potential to result in the combustion of vegetation, as would smoking by construction workers.

As discussed in Section 2.2. *Project Description*, construction workers would receive training in fire safety and suppression in order to prevent fire and respond effectively if fire does break out. During solar facility construction, water trucks used for dust suppression would be available for suppression of small fires.

Fire Hazards During Solar Facility Operation

During solar facility operation, equipment such as transformers, inverters, and substation equipment would involve the use of oils (e.g., dielectric or mineral oils and lubricants) and fuels, which would pose potential fire hazards. The battery storage facilities would also pose a potential fire hazard. Maintenance vehicles and panel washing trucks would travel among the solar arrays where low vegetation would be dry in summer and potentially combustible. Smoking by operational personnel would also pose a fire hazard.

The project would include a number of design and operational measures for fire prevention and suppression. The project would be constructed in accordance with the California Fire Code. Electrical equipment such as transformers and inverters would be placed on concrete foundation pads and housed in steel and concrete equipment enclosures, minimizing the risk of electrical sparks that could ignite vegetation in the event of equipment failure. All electrical equipment (including inverters) not located within a larger structure would be designed specifically for outdoor installation, and all electrical equipment would be subject to product safety standards. Portable carbon dioxide (CO₂) fire extinguishers would be mounted at the inverter/transformer pads throughout the project. Maintenance crews would regularly inspect facilities for reliability and safety.

The project would also include energy storage facilities consisting of several prefabricated electrical enclosures containing battery banks and associated switchboards, inverters and transformers. All battery containers would be installed on concrete foundations designed to provide secondary containment. The enclosures would have appropriate fire suppression systems built to code. Each energy storage unit used on site would be designed in compliance with Section 608 of the International Fire Code, which has been adopted by the State of California to minimize risk of fire from stationary storage battery systems and contain fire in the event of such an incident. Under California law, the battery enclosures also must comply with Article 480 of the Electrical Code, which presents requirements for stationary storage batteries. Article 480 provides the appropriate insulation and venting requirements for these types of systems, further preventing associated risk of fire from the battery enclosures on the project site.

The Utica Avenue Solar Project would be required to comply with fire safety standards under Section 10-7 of the Kings County Code, under which the regulations of the National Fire Protection Association and the American Insurance Association are applied. The Fire Marshal and Public Works Department would review the project plans to ensure compliance with all code requirements and standards. The Building Division of the Kings County Community Development Agency would ensure Fire Code requirements are met through the plan check process, building permit issuance, construction inspection, and issuance of certificate of occupancy once all of the work has been completed and the final inspection has been approved.

The approval of the project would be subject to conditions including compliance with the provisions of the Kings County Improvement Standards with respect to emergency vehicle access. As required by the Fire Department, all structures (including solar arrays) must be accessible by fire-fighting equipment and personnel via internal fire access driveways. These internal gravel driveways would consist of a durable dust-free (oiled) surface, in accordance with the Kings County Improvement Standards, which would inhibit the growth of vegetation. The Fire Department also requires

minimum of 4 feet of separation between rows of solar modules to allow access by fire suppression personnel. The construction of the 20-foot-wide driveway following the perimeter of the site would act as a fire break between the site and off-site areas, thereby limiting the potential for a fire at the site to spread off-site. (For further detail on fire protection features proposed for the project, see Section 2.2. *Project Description*.)

The project approval would also include a condition that all detailed project plans are subject to review and approval by the County Fire Marshal to ensure that potential fire hazards are adequately addressed. This includes a requirement that the applicant shall provide training to fire personnel to enable them to interrupt electrical supply safely during emergency incidents requiring fire suppression or rescue activities.

As required in the project's Storm Water Pollution Prevention Plan (SWPPP), the exposed soils on the project site after construction would be revegetated with native seed mix to prevent erosion and dust generation. The project's Soil Reclamation Plan (SRP) would require protection of on-site soils for future reclamation upon decommissioning. The vegetative cover would be kept low by mechanical means which would reduce fuel load buildup and reduce the potential hazard from grass fires.

In summary, although the project would result in an incremental increase in demand for Fire Department services, this increase is expected to be minor and thus would not result in degradation of service levels or in the need for new or expanded facilities. Therefore, the Utica Avenue Solar Project would result in *no impact* related to an increase in fire protection services that would necessitate the alteration or construction of fire stations or other infrastructure to combat fire.

ii) Police Protection?

No Impact. Construction and operation of the Utica Avenue Solar Project is not expected to result in increased demand of police protection services leading to the construction of new or physically altered facilities.

Law enforcement services to the Utica Avenue Solar facility would be provided by the Kings County Sheriff's Office. During construction of the solar facility, slow moving trucks could result in temporary congestion on public roadways near the project entrances, and could pose a safety hazard due to abrupt changes in the speed of traffic flow, or due to slow turning movements across on-coming lanes of traffic. Any temporary traffic disruptions would involve coordination with the Sheriff's Office. The temporary traffic hazards associated with construction of the project are discussed in Section 4.17. *Transportation*. Any potential traffic hazard impacts would be minimized through implementation of traffic control measures specified in Mitigation Measure TR-1. The traffic control measures required during construction may result in a minor temporary use of the Kings County Sheriff's Office's resources, but would have *no impact* in terms of necessitating new or expanded Sheriff's Office facilities to maintain adequate service levels.

Once the project is completed and operational, calls for service from the solar facility are expected to be infrequent, primarily due to the comprehensive security measures included in the design and operation of the solar project. The design features for project security are described as follows. The perimeter of each project phase will be securely fenced and gated to prevent unauthorized access.

Electronic surveillance equipment such as infrared security cameras and motion detectors would be installed around the solar facility. These security features are intended to act as a deterrent to crimes such as theft and vandalism, and would be operationally integrated with the services of a private security company. The video feeds from the installed surveillance equipment would be transmitted in real time to the off-site security contractor for monitoring. In the event that the surveillance system detects a breach, a security representative would be dispatched to the site, as needed, and the County Sheriff's Office would be notified as appropriate.

In summary, it is expected that project operations would result in minimal demand for the Sheriff's Office's services and would not degrade service levels or result in the need for new or altered Sheriff's Office facilities. Therefore, the Utica Avenue Solar Project would result in a minor increase in demand for law enforcement services, but would have *no impact* in terms of necessitating new or expanded Sheriff's Office facilities to maintain adequate service levels.

iii) Schools?

No Impact. The Utica Avenue Solar Project will not include a residential component and thus would not generate school-aged children that could result in the need for new or expanded school facilities. Therefore, the project would have *no impact* on schools. However, the Utica Avenue Solar Project will pay a school mitigation fee, as mandated by State law for all commercial development.

iv) Parks?

No Impact. Demand for parks and recreation is mainly generated by residential development. No permanent staff would be stationed at the solar facility, and the few staff who would visit the facility to perform routine maintenance activities would be unlikely to seek out recreational activities while in the project area. As such, the Utica Avenue Solar Project would not increase demand for parks and recreational facilities, and would have *no impact* in terms of necessitating new or expanded parks or recreation facilities to maintain adequate service levels.

v) Other Public facilities?

No Impact. The Utica Avenue Solar Project would not generate demand for social services, courts, libraries, or other public services. As such, the Utica Avenue Solar Project would have *no impact* in terms of necessitating new or expanded facilities to maintain adequate service levels for other public services.

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4.16. RECREATION

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) <i>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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

- 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. The Utica Avenue Solar Project would not include a residential component and thus would not result in an increase in local population which might in turn result in a substantially increased use of or demand for neighborhood or regional parks, or other recreational facilities. Construction workers commuting to the project would comprise existing residents from surrounding communities who would utilize recreational facilities in those communities. No permanent staff would be stationed at the solar facility, and a small number of personnel would visit the facility to perform routine maintenance activities. Neither the project construction workers nor operations personnel would be unlikely to seek out recreational activities while working in the project area. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of causing or accelerating physical deterioration of recreational facilities.

- 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 Utica Avenue Solar Project would not include recreational facilities, and thus would not result in impacts associated with such facilities. The project would not include a residential component or on-site operational staff, and thus would not result in increased demand for recreational facilities. As such, the Utica Avenue Solar Project would have *no impact* related to construction or expansion of recreational facilities.

4.17. TRANSPORTATION

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</i>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
<i>d) Result in inadequate emergency access?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>

Transportation Setting

State highways in the vicinity that serve the project area include Interstate 5 located to the west, State SR-41 located to the west and north, and SR-33 located to the west. The Kings County roads serving the project area include: Utica Avenue, which runs along the northern site boundary from east to west, and 6th Avenue, which runs in a north-south direction approximately 16 miles the east of the project site.

The nearest public use airports in the project area include those at Hanford, Coalinga, and Harris Ranch, which are all located from 29 to 32 miles from the project site. The airfield at Naval Air Station Lemoore (NASL) is located 25 miles north of the Utica Avenue Solar Project site. There are no operational private airstrips within a 10-mile radius of the project site.

The nearest public transit route operated by Kings Area Rural Transit (KART) is the Hanford Avenal Route which runs from Hanford west along SR-198 and then follows SR-41 to the southwest through Kettleman City and on to SR-33 where it turns north en route to Avenal. There are no existing or planned bicycle routes in the project vicinity (Kings County 2010d).

Regulatory Context

State of California

California Vehicle Code

Various sections of the California Vehicle Code (CVC) apply to the Utica Avenue Solar Project. CVC Section 35550 imposes weight guidelines and restrictions upon vehicles traveling on State freeways and highways, and requires heavy haulers to obtain permits from Caltrans prior to delivery of any heavy haul load. CVC Section 35780 requires that haulers of oversized or excessive loads over State highways obtain a “Single-Trip Transportation Permit” from Caltrans prior to delivery of any oversized load. Oversize/overweight permits are considered on a case-by-case basis but may include requirements such as California Highway Patrol escort, special speed limits, and other restrictions. The CVC also contains various regulations governing the transportation of hazardous materials on State highways.

California Streets and Highways Code

Section 117 of the California Streets and Highways Code requires that permits be obtained from Caltrans for placement within the State right-of-way of any structures or fixtures such as utility poles, pipes, ditches, drains, sewers, or other above-ground or underground structures. Other sections of the Streets and Highways Code require the issuance of encroachment permits for work within the rights-of-way of State or county roadways.

Kings County

Kings County Regional Transportation Plan

The 2014 Kings County Regional Transportation Plan (RTP), prepared by the Kings County Association of Governments (KCAG), contains goals and objectives for State highways, major local routes of significance, alternative transportation modes, and strategies for transportation and demand management (KCAG 2014). Since KCAG is a metropolitan planning organization, and not a Transportation Management Agency (TMA), it is not required to adopt Transportation Systems Management (TSM) measures or a Congestion Management Plan (CMP) as is required for larger urbanized areas.

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives and policies related to transportation facilities which are relevant to the Utica Avenue Solar Project:

Circulation Element

A. Countywide Circulation

- | | |
|------------------|--|
| C GOAL C1 | 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 C1.3 | Maintain an adequate Level of Service operation for County roadways and ensure proper maintenance occurs along critical routes for emergency response vehicles. |
| C Policy C1.3.1: | Maintain and manage County roadway systems to maintain a minimum Level of Service Standard “D” or better on all major roadways and arterial intersections. |
| C Policy C1.3.2: | Require 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. |

- C Policy C1.3.5: Require new development to pay its fair share of costs for street and traffic improvements based on traffic generated and its impact to traffic levels of service.
- C Policy C1.3.6: Require dedication of right of way to county standards for all new development projects.
- C Policy C1.3.7: Require new development to respect existing precise plan lines or ultimate right of way lines dedication of right of way as a condition of development approval.
-
- C OBJECTIVE C1.3 Promote Public Transit and vanpooling within the County urbanized areas to increase ridership and decrease traffic demand on County roadways.
- C Policy C1.3.3: Encourage and support the enhancement and marketing of transit and vanpool services as a viable transportation alternative and transportation control measure to improve air quality.

Kings County Improvement Standards

The Kings County Improvement Standards serves as an engineering reference for Kings County staff and private parties in the design and construction of improvements for public works projects and private development improvements. The standards include engineering design specifications for the construction of streets, water supply systems, storm drainage, and sewage disposal.

Environmental Evaluation

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Roadway Facilities

Transportation policies and programs in Kings County are set forth in the Kings County *2035 General Plan Circulation Element* which establishes Level of Service D as the minimum service level to be maintained on County streets and roadways (Kings County 2010d).

Since the Utica Avenue Solar Project will also generate traffic on Interstate 5, a State highway, the LOS policies of the California Department of Transportation (Caltrans) are also considered in this analysis. For all State highways within Kings County, Caltrans applies the service standard of LOS D for Regionally Significant Routes pursuant to the Kings County Regional Transportation Plan (Caltrans 2013). Therefore, the traffic generated by the project would conflict with the applicable LOS policies if it results in a degradation of Level of Service to lower than LOS D on a Kings County road or State highway.

Less-than-Significant Impact. As is typical of all PV solar projects, the Utica Avenue Solar Project would generate the greatest volume of traffic during the construction phases when workers are onsite during site preparation, grading, panel installation, and electrical equipment installation for the project. The construction period is also when the greatest number of truck deliveries are made, including deliveries of grading and construction equipment, solar panels, racking systems, electrical equipment, gravel, asphalt, and concrete, among other materials.

Construction Traffic

Since the project would generate the highest traffic volumes during the construction phases, a screening level of analysis was conducted to determine if adverse impacts to roadway system performance would occur, even under temporary conditions during project construction. During the 60-day construction period, it is estimated that a peak workforce of 65 workers would commute to the project site daily, resulting in a total of 130 daily trips (see Table 2 in Section 2.2. *Project Description* for a summary of construction vehicle usage by construction phase). For purposes of analysis, it was assumed that no workers would carpool or use transit or shuttle buses.

Construction workers would arrive at the site prior to the 7 AM start time and depart the site between 3 and 4 PM. As such, few if any workers are expected to be on the roadway network between the peak commute periods of 7 to 9 AM or 4 to 6 PM. (Note: Mitigation TR-1 requires that the generation of construction-related traffic be minimized during these peak commute periods.) Since project traffic generation during the AM and PM peak periods is therefore expected to be negligible, no evaluation of peak hour traffic impacts was warranted.

Project worker commute traffic was distributed to the roadway system in accordance with a gravity model that considered time and distance factors relative to regional population centers to determine directional trip assignments. The average daily truck traffic that was estimated for the peak construction period was similarly distributed according to place of origination for each type of delivery. In order to reflect the effect of larger trucks on highway capacity, all truck trips were multiplied by 2.5 to derive Passenger Car Equivalent (PCE) trips generated by trucks. Deliveries were also multiplied by two to reflect inbound and outbound trips. Table TR-1, on the next page, shows the effect of project construction traffic on the surrounding roadway network. In order to establish Baseline traffic conditions on the study roadways for 2022, the existing count data for each roadway segment was increased by 1 percent per year from its latest count date. This growth rate is somewhat higher than the statewide increase in traffic volumes on State highways over the 10 year period from 2006 and 2016 (the latest period for which statewide data is available).

In general, the project-generated traffic would be low relative to existing daily traffic volumes on the affected roadways. As shown in Table TR-1, none of the affected roadway segments would be subject to a change in Level of Service due to project-generated construction traffic. During the period of peak project construction activity, the most heavily affected roadway segment – Utica Avenue near the project entrance – would be temporarily subject to a 22 percent increase in daily traffic west of the project entrance, and a 2 percent increase in daily traffic volumes east of the project entrance. However, due to the very low existing traffic volumes on Utica Avenue, the service level would remain at acceptable LOS B on this roadway during the peak construction period. Other roadways in the vicinity would be subject to temporary increases of 0.04 to 12.8 percent in overall traffic volumes. The project-generated traffic volumes would be lower during non-peak periods of construction on all affected roadways.

TABLE TR-1
UTICA AVENUE SOLAR PROJECT – CONSTRUCTION TRAFFIC
(BASED ON PEAK CONSTRUCTION PERIOD)

Roadway Segment	Baseline Traffic Conditions				Level of Service (LOS)		Project Traffic Conditions ¹ (During Peak Construction Period)				
	AADT ²		Roadway Lanes (Agency) ⁵	Base-line LOS ⁶	Applicable Minimum LOS Standard ⁷	Maximum AADT at Min. LOS Standard ⁸	Avg. Daily Project Trips ⁹	Roadway AADT with Project	Project % Increase over Baseline	LOS with Project	Exceeds Applicable Min. LOS Standard?
	Existing ³	Baseline ⁴ 2022									
Interstate 5 – Mainline											
- North of Utica ⁹	34,000 ¹⁰	34,683	4 (fwy)(CT)	B	D	67,100	102	34,833	0.3%	B	No
- South of Utica ⁹	32,500 ¹⁰	33,153	4 (fwy)(CT)	B	D	67,100	14	33,167	0.04	B	No
Utica Avenue											
- between I-5 southbound ramps and northbound ramps	440 ¹¹	453	2 (KC)	B	D	13,800	58	511	12.8	B	No
- b/n I-5 southbound ramps and project entrance	510 ¹¹	525	2 (KC)	B	D	13,800	116	641	22.1	B	No
- east of Project Entrance	510 ¹¹	525	2 (KC)	B	D	13,800	12	527	2.3	B	No

¹ Table includes only roadway segments subject to 40 or more daily trips during the peak construction period.

² AADT = Annual Average Daily Trips

³ "Existing" = traffic volumes on roadways and highways at time of the most recent counts.

⁴ Existing AADT was increased by 1% per year from count year to Baseline Year (2022).

⁵ Agency abbreviations: KC = Kings County; CT = Caltrans.

⁶ Source: Kings County 2010d, p. C-14 (LOS thresholds based on Highway Capacity Manual).

⁷ Minimum LOS Standards by Agency: Kings County = LOS D; Caltrans = For State highways through Kings County, Caltrans applies KCAG standard of LOS D for RTP Regionally Significant System; Fresno County = LOS D (urban), LOS C (rural).

⁸ Source: Kings County 2010d.

⁹ Project Daily Trips: Average Day = Average daily trips generated during the peak construction period. All trips are assumed to travel to/from west along Utica Avenue to I-5 and then north on I-5.

¹⁰ Source: Caltrans 2022 (reflects 2020 volumes).

¹¹ Source: Kings County 2020 (reflects 2019 counts).

In summary, project construction traffic would not result in a reduction of service levels on any of the affected roadways, which would remain at LOS B on all affected roadway segments. Thus all roadways affected by project construction traffic would continue to operate at LOS D or better, thus maintaining the County's LOS standard of D as established in the *General Plan Circulation Element*, and also maintaining the LOS D standard applicable on State highways in Kings County. Thus, the increment of traffic volume generated by the Utica Avenue Solar Project during construction would represent a *less-than-significant* impact in terms of conflicts with Level of Service policies applicable to the affected roadways.

Operational Traffic

Once the Utica Avenue Solar facility is operational, the project-generated traffic would become very light. No permanent staff would be stationed at the solar facility, although operations and maintenance contractors would visit the project on a regular basis to perform inspections, maintenance and repairs. Panel washing crews would work on the site up to two times per year for several days at a time. There would also be occasional truck deliveries for replacement parts and other materials. On average, it is estimated that up to 2 daily round trips would be generated by the operational workers on any given day. Truck deliveries would be expected to occur intermittently during the year. The very low volume of worker and delivery truck traffic generated during project operations would have a negligible effect on the performance of the roadway system serving the project, and the impact of operational traffic from the Utica Avenue Solar Project would be *less than significant* in terms of conflicts with Level of Service policies applicable to the affected roadways.

Decommissioning Traffic

As discussed in Section 2.2. *Project Description*, the level of activity during decommissioning (or deconstruction) of the Utica Avenue Solar Project is expected to be similar to the activity level during project construction. Thus the number transport vehicle trips required for off-haul of decommissioned materials is expected to be similar to the number of trips required to haul the materials to the site during construction. The number of workers required on-site is also expected to be about the same, while the use of construction equipment would be similar or a little less. For purposes of analysis, it is assumed that traffic generated during decommissioning would be the same as the traffic generated during construction, as shown in Table TR-1 above. As shown in the table, project-generated traffic volumes would generally be very low relative to current traffic volumes on the affected roadways, and levels of performance would not be adversely affected by the project decommissioning traffic. At the time of project decommissioning in about 20 years, the long-term traffic forecasts for the affected roadways indicates that all roadways will be operating at acceptable service levels at that time (KCAG 2018, Fresno COG 2013). The temporary addition of relatively small volumes of traffic from project decommissioning would have a *less than significant* impact in terms of conflicts with Level of Service policies applicable to the affected roadways at the time of decommissioning.

In summary, the Utica Avenue Solar Project would not conflict with any Level of Service policies established by any transportation agency with jurisdiction over roadways affected by project-generated traffic. Therefore, the Utica Avenue Solar Project would have a *less-than-significant impact* in this regard.

Transit, Roadway, Bicycle and Pedestrian Facilities

Less-than-Significant Impact. As discussed under “Transportation Setting,” there are no existing or planned public transit routes, bikeways, or pedestrian facilities in the project vicinity, so the project would not decrease the performance or safety of such facilities. The project would not conflict with any adopted policies, plans, or programs regarding transit, bikeways, or pedestrian facilities, or otherwise decrease the performance or safety of transit or pedestrian facilities (Kings County 2010d). Therefore, the Utica Avenue Solar Project would have a *less-than-significant impact* in this regard.

b) Would the project conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Introduction

Section 15064.3(b) was added to the CEQA Guidelines in December 2018 in order to implement California Senate Bill 743 (SB 743). Under SB 743, the focus of transportation analysis shifts from driver delay, which is typically measured by traffic level of service (LOS), to a new measurement, vehicle miles traveled (VMT). This change in metrics is intended to further the State’s long-term greenhouse gas reduction goals by reducing fuel consumption in the transportation sector, specifically through reductions in per capita VMT associated with new land use projects, and thereby promoting compact, mixed-use development patterns.

Under the new guidelines, VMT-related metric(s) are required to evaluate the significance of transportation-related impacts under CEQA. SB 743 does not preclude the use of LOS-related metrics in local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS.

CEQA Guidelines Section 15064.3(b) sets forth criteria for analyzing transportation impacts of proposed projects, as required under AB 743. For land use projects, this section states that “vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.” The establishment of specific significance thresholds is left up to each lead agency to develop in the course of implementing corresponding amendments to its local CEQA guidelines. Under SB 743, local land use agencies were required to establish VMT significance thresholds to be applied in CEQA analyses of proposed land use projects by July 1, 2020. However, on June 9, 2020 the Kings County Board of Supervisors adopted Resolution No. 20-041 delaying the implementation of Vehicle Miles Traveled requirements in Kings County for at least 2 years. Therefore, the following analysis is provided for informational purposes only.

In the Technical Advisory issued by the Governor’s Office of Planning and Research (OPR) for guidance in implementing SB 743, the recommended significance threshold for residential projects is defined as VMT exceeding a level of 15 percent below regional VMT per capita, and for office and retail projects a significant transportation impact would occur if project-generated VMT exceeds a level of 15 percent below regional VMT per employee (OPR 2018, pp. 15-16). OPR’s Technical Advisory does not address other land uses, and suggests that thresholds for other land uses be developed at the local level.

To address transportation impacts from small projects, the OPR Technical Advisory recommends the application of “screening thresholds” to identify when a project would be expected result in a less-than-significant transportation impact without conducting a detailed study. The Technical Advisory states that, in general, projects that generate fewer than 110 trips per day may be assumed to cause a less-than-significant transportation impact (OPR 2018, p.12).

The OPR Technical Advisory does not address the establishment of significance thresholds for construction VMT. However, Guidelines Section 15064.3(b)(3) states: “[f]or many projects, a qualitative analysis of construction traffic may be appropriate.”

Although Kings County has not yet established VMT significance thresholds for land use projects, the OPR Technical Advisory provides sufficient guidance to undertake an informational impact analysis under SB 743. Based on the requirements of CEQA Guidelines Section 15064.3(b), as elaborated upon by OPR in the corresponding Technical Advisory, the following significance thresholds for VMT are applicable for purposes of this analysis:

Construction VMT – Significance is to be determined through a qualitative analysis that considers estimated construction VMT as compared with Countywide VMT, and also considers pre-project traffic conditions on the roadways that would be most affected by construction traffic.

Operational VMT – Any project that generates operational traffic volumes of less than the screening threshold of 110 trips per day is presumed to have a less-than-significant transportation impact. Any project that generates 110 daily trips or more shall be quantitatively evaluated for VMT impacts.

Less-than-Significant Impact. The potential VMT impacts associated with construction and operation of the Utica Avenue Solar Project are discussed in turn below.

Construction

The Utica Avenue Solar Project would be constructed over a period of three months during which time construction traffic volumes would fluctuate depending on the construction phase. It is estimated that the average daily VMT generated by all worker trips and truck deliveries during project construction would be approximately 5,913 miles per day (i.e., 354,800 vehicle miles / 60 construction days). In comparison, the average VMT for Kings County in 2015 (the most recent year for which VMT data is available) was 3,992,787 miles per day (KCAG 2018b, p. 4.12-6). Thus, the daily VMT generated during construction of the Utica Avenue Solar Project would be equivalent to 0.15 percent of average daily VMT in Kings County. (The actual project-related VMT occurring in Kings County would be less considering that a large portion of the project VMT would occur outside Kings County.) This very small increment in VMT would occur only during the 3-month construction period. As discussed under item ‘a) above, the roadways that would be most affected by project construction traffic would all continue to operate well within their design capacities (as indicated by the applicable LOS standards) with the addition of project construction traffic, even during the period of peak construction activity.

In summary, the above qualitative analysis shows that the VMT generated by project construction would be very low compared to overall Countywide VMT, and would only occur temporarily during

project construction. The project construction traffic would have a minor short-term effect on the principally-affected roadway – Utica Avenue – which is very lightly traveled, and which would have substantial remaining traffic carrying capacity during the 3-month project construction period. The greenhouse gas emissions from project construction would be very small, and the Utica Avenue Solar Project would result in a substantial net benefit in terms of greenhouse gas emissions since it would offset emissions from a fossil-fueled generating plant of equivalent capacity (see Section 4.8. *Greenhouse Gas Emissions*). Given the very low VMT generated during project construction, and the very low traffic volumes on Utica Avenue under current conditions, and considering that the Utica Avenue Solar Project would help the State achieve its greenhouse gas reduction goals, and would thus advance the specific purpose of SB 743, the project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, the project construction traffic impact under this significance criterion would be *less than significant*.

Project Operation

As discussed under item ‘a’ above, traffic generated during project operations would be very light. No permanent staff would be stationed at the solar facility, although operations and maintenance contractors would visit the project on a regular basis to perform inspections, maintenance and repairs. On average, it is estimated that an average of about 2 daily round trips (i.e., 4 trip ends or trips) would be generated by the workers on any given day. This is substantially below the screening threshold of 110 trips per day or less recommended by OPR’s Technical Advisory as the volume of daily trips that may be assumed to have a less-than-significant transportation impact. Therefore, the operation of the Utica Avenue Solar Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and the impact under this significance criterion would be *less than significant*.

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

Less-than-Significant Impact with Mitigation Incorporated. The Utica Avenue Solar Project would have one driveway entrance Utica Avenue. The new entrance would result in turning movements in and out of the project site which would increase the potential for interaction with traffic along this County road. However, the project entrances would be designed in accordance with the *Kings County Improvement Standards*, and would be subject to prior design review and approval by the Kings County Public Works Department. Project egress would be controlled by stop signs, and sight-lines would be very good in all directions given the flat terrain, absence of visual obstructions, and linear alignment of Utica Avenue. Thus the potential traffic hazard resulting from the project would be very small, particularly during project operations when the solar facility would generate very little traffic on this very lightly-traveled County road.

As discussed above, the volume of traffic generated by the project would be greatest during the construction and decommissioning phases. This would include regular deliveries of materials and equipment by large trucks. Slow moving trucks could result in temporary congestion near the project entrance, and could pose a safety concern due to abrupt changes in the speed of traffic flow, or due to slow turning movements across on-coming lanes of traffic. Delivery truck traffic could also interact with the slow moving farm equipment and vehicles utilizing the roadway. The implementation of the Mitigation Measure TR-1 below would reduce the potential impact from safety hazards due to construction and decommissioning traffic to a *less-than-significant* level.

Mitigation Measure TR-1: Traffic Safety Measures for Solar Project Construction. *As a condition of project approval, and prior to the issuance of encroachment permits, the applicant shall consult with the Kings County Public Works Department regarding construction activities that may affect area traffic (such as equipment and supply delivery necessitating lane closures, trenching, etc.). Additionally, the project plans will be reviewed by the appropriate County departments for conformance with all applicable fire safety code and ordinance requirements for emergency access. The contractor shall implement appropriate traffic controls in accordance with the California Vehicle Code and other state and local requirements to avoid or minimize impacts on traffic. Traffic measures that shall be implemented during construction and decommissioning activities include the following:*

- a. *Construction traffic shall not block emergency equipment routes.*
- b. *Construction activities shall be designed to minimize work in public rights-of-way and use of local streets. As examples, this might include the following:*
 - i. *Identify designated off-street parking areas for construction-related vehicles throughout the construction and decommissioning periods.*
 - ii. *Identify approved truck routes for the transport of all construction- and decommissioning-related equipment and materials.*
 - iii. *Limit the employee arrivals and departures, and the delivery of equipment and materials, to non-peak traffic periods (e.g., avoid unnecessary travel from 7 to 9 AM and 4 to 6 PM).*
 - iv. *Provide for farm worker vehicle access and safe pedestrian and vehicle access.*
 - v. *Provide advance warning and appropriate signage whenever road closures or detours are necessary.*
- c. *Construction shall comply with San Joaquin Valley Air Pollution Control District standards for unpaved roads, which include a requirement to keep vehicle speeds below 15 miles per hour.*

Since the precise nature and timing of construction and decommissioning activities requiring the traffic safety measures set forth in Mitigation Measure TR-1 cannot be predicted as of this writing, the details of the traffic safety mitigations will be determined by the County Public Works Department at the such time as the activities for which they are required are scheduled and the applicant's construction contractor requests consultation regarding such activities.

d) *Would the project result in inadequate emergency access?*

The Health and Safety Element of the 2035 Kings County General Plan designates evacuation routes to be relied upon for emergency or disaster responses. Within the project area, the primary evacuation routes include Interstate 5 and SR-41, and the secondary evacuation routes include Utica Avenue, and 6th Avenue (Kings County 2010e).

Less-than-Significant Impact. The Utica Avenue Solar Project will have its main project entrance on Utica Avenue, which is a County-designated emergency evacuation route and will serve as a critical evacuation route for the Utica Avenue Solar Project. This route would remain open throughout

construction, and emergency access would not be limited by construction activities at the project site. As required under Mitigation Measure TR-1, the applicant would be required to coordinate with the County Public Works Department regarding construction-related activities that may affect traffic on these roadways, and specifically to prevent blockage of emergency equipment routes.

The project will include an internal system of driveways and aiseways to provide adequate emergency access throughout the project. The project plans will be reviewed by the appropriate County departments for conformance with all applicable fire-safety code and ordinance requirements for emergency access. Therefore, with the implementation of Mitigation Measure TR-1, the Utica Avenue Solar Project would result in *a less-than-significant impact* with respect to adequacy of emergency access.

REFERENCES – TRANSPORTATION

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https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

4.18. TRIBAL CULTURAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:</i>				
<i>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k), or</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native Tribe.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Regulatory Context

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

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

Setting

As discussed in Section 4.5. *Cultural Resources*, archival research and reconnaissance of the Utica Avenue Solar Project by Basin Research Associates indicated that no significant archaeological resources are present within the project site or immediately surrounding areas. (See Section 4.5. *for a complete discussion of the cultural resources setting.*)

The Native American Heritage Commission (NAHC) was contacted concerning resources listed on the *Sacred Lands Inventory*. The results of the NAHC record search were negative, indicating no record for the presence of Native American Sacred Lands in the immediate project area.

The majority of the lands in the study area have been disturbed by agricultural activities, which may have disturbed or destroyed archaeological resources at or near the ground surface. However, it is possible that intact archaeological resources may be buried below the disturbed upper layer of soil. If so, the excavation associated with Utica Avenue Solar Project could expose as-yet undetected resources. It is also possible that human remains could be encountered as human remains have been associated with several of the prehistoric archaeological resources along the former Tulare Lake shoreline.

Environmental Evaluation

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k), or

Less-than-Significant Impact with Mitigation Incorporated. To date, no National Register of Historic Places or California Register of Historical Resources eligible or listed historic properties/cultural resources, and no known ethnographic, traditional or contemporary Native American use areas and/or other features of cultural significance have been identified in or adjacent to the Utica Avenue Solar Project site.

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

However, the County regularly coordinates with the Santa Rosa Rancheria Tachi Yokut Tribe which is the tribe which is traditionally and culturally affiliated with the project area. The tribal representatives who were contacted regarding the Utica Avenue Solar Project indicated that there are no known tribal cultural resources within the project site, although there is a potential for discovery of previously unknown tribal cultural resources during site disturbance and construction of Utica Avenue Solar Project. (Noelle –Basin Research has not yet received a list of tribes from

NAHC to whom coordination letters should be sent, but we expect that this coordination will occur soon.) The tribal representatives provided the County staff with recommended mitigation measures for protection of tribal cultural resources, which have been incorporated in full in Mitigation Measures CUL-1 and CUL-2 in Section 4.5. *Cultural Resources*. (Noelle – the standard MMs were developed with Tribal input on a previous solar project, and we will not need to revisit this with the Tribe for every project.) With the implementation of Mitigation Measures CUL-1 and CUL-2, the impact to tribal cultural resources would be reduced to *less than significant*.

Mitigation Measure: Implement MM CUL-1 and CUL-2.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native Tribe.

Less-than-Significant Impact with Mitigation Incorporated. In the event that tribal cultural resources are discovered during project site disturbance which have not previously been evaluated for significance, the Kings County Community Development Agency will evaluate the significance of the resource in cooperation with the Santa Rosa Rancheria Cultural and Historical Preservation Department, through application of the criteria for eligibility for listing on the California Register of Historical Resources. With implementation of Mitigation Measures CUL-1 and CUL-2, impacts to such potential tribal cultural resources would be reduced to *less than significant*.

Mitigation Measure: Implement MM CUL-1 and CUL-2.

REFERENCES – TRIBAL CULTURAL RESOURCES

- Basin 2022 Basin Research Associates. 2022. *Cultural Resources Review Report – Utica Avenue Solar Project, Kings County, California*. March.
[Cultural Resources report is kept administratively confidential by Kings County Community Development Agency per Government Code Section 6254, subdivision (r) and Section 6452.10.]

4.19. UTILITIES AND SERVICE SYSTEMS

<i>Would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or stormwater drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>c) 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?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
<i>d) Generate solid waste in excess of state or local standards, in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste goals?</i>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
<i>e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Setting

Water Supply

The project site is located in the Dudley Ridge Water District (DRWD) which provides imported surface water supplies from the State Water Project (SWP) to landowners in the District. The District takes surface water directly from the California Aqueduct and conveys the water via concrete-lined distribution channels and pipelines to District landowners. The District encompasses approximately 37,600 acres of which 23,000 acres have a water allocation (DRWD 2019). Annual water demand in the District is 60,000 to 65,000 acre-feet, or approximately 2.6 to 2.8 acre-feet per acre of irrigated land. The groundwater underlying the Water District (including the project site) is not usable for irrigation due to low yields and poor quality. The California Department of Water Resources (DWR) characterized the District's groundwater situation in Bulletin 118-98 as "groundwater unavailable or unusable" (DRWD 2020). As such, there are no groundwater wells within the District.

In 1998, the project site was annexed to the Dudley Ridge Water District as part of an approximately 3,942-acre annexation of lands owned by Sandridge Partners. The project site was "subordinately"

annexed, meaning that it was only eligible to receive water supply from the Water District if there was excess water available in any given year that was not allocated to other lands in the District. No excess surface water has been available since the 1980s to allow delivery of water to the project site. In addition, the nearest District water conveyance facility is located about two miles south of the project site, so water delivery to the site is not feasible in any case. In summary, the project site has no agricultural water available, either from surface water or groundwater sources, for purposes of crop irrigation.

In summary, the Utica Avenue Solar Project site has no rights or access to imported surface water deliveries, and there are no groundwater wells on the project site or elsewhere in the vicinity.

Wastewater Collection and Treatment

The project site is not within or near an area served by a community wastewater collection and treatment system. For projects in rural areas of Kings County that include permanent on-site employees, the wastewater disposal needs are typically met by individual septic tank and leachfield systems which are regulated under the Kings County Plumbing Code, which sets forth design criteria and standards for their installation. Since the planned solar facilities will have no permanent staff on-site, no permanent wastewater facilities will be required for the project. When workers are scheduled to be on site for extended periods, such as during panel cleaning cycles, sanitary needs will be provided by portable chemical toilets that will be serviced by an outside contractor as needed.

Storm Water Drainage

There are no storm drainage facilities in the project area. The existing network of irrigation canals and ditches in the project area receive some stormwater runoff from adjacent lands during intense or prolonged storm events. Under current conditions, rainfall at the Utica Avenue Solar Project site percolates into the soil with little or no runoff leaving the site. The terrain of the project site is virtually flat, with a maximum gradient of 0.4 percent.

Electric Power

Pacific Gas and Electric Company (PG&E) is an investor-owned utility company that provides electrical service to the project site and most of Kings County, with the exception of a small area in the northeast corner of the County which is served by Southern California Edison (SCE). A PG&E 12-kV distribution line runs adjacent to the northwest corner of the project site along the south side of Utica Avenue. A 230-kV power transmission lines runs parallel to Interstate 5 approximately 1.6 miles west of the project site.

Natural Gas

The project site is within the service area of Southern California Gas Company (SoCalGas), although there are no natural gas distribution lines in the immediate project vicinity. The nearest gas line is a high pressure natural gas transmission line owned by PG&E that runs parallel to Interstate 5 approximately 2.0 miles west of the project site.

Telecommunications

The project area is located within AT&T's service territory for land based telephone service, and also includes internet and TV connections. Comcast Xfinity provides cable, internet and phone service in the

urbanized areas of Kings County. Wireless internet is available to the project area from Unwired Broadband.

Solid Waste

Solid waste collection and disposal service in Kings County is provided by the Kings Waste and Recycling Authority (KWRA). The KWRA was formed in 1998 by agreement between Kings County and the cities of Lemoore, Hanford, and Corcoran. Solid waste from the member jurisdictions is transported to the KWRA Materials Recovery Facility in Hanford where wastes are separated for recycling, composting, or landfill disposal. Commercial solid waste is collected by private contract with licensed haulers (Kings County 2010a). Used construction and demolition material is accepted at several approved facilities in the region.

In Kings County, non-recyclable materials are disposed of at the B-17 Landfill Unit of the Chemical Waste Management, Inc., Landfill, located in the Kettleman Hills south of Kettleman City on SR-41, and the Avenal Regional Landfill, located just north of urbanized area of the City of Avenal on Skyline Boulevard. The Chemical Waste Management B-17 Landfill Unit has a maximum permitted disposal rate of 2,000 tons per day, and in 2019 accepted a total of 183,998 tons, or an average of 613 tons per day (assumes landfill is open 300 days per year)(CalRecycle 2020e). The total permitted capacity of the B-17 Landfill Unit is 18.4 million cubic yards, with a remaining capacity of approximately 17.5 million cubic yards, as of November 2010. (Based on annual volume of disposal since 2010 [approx. 250,000 cubic yards per year], it is roughly estimated that B-17 Land Unit had a remaining capacity of approximately 15.0 million cubic yards at the end of 2020.) The facility's estimated closure year is 2030, with the actual closure date depending on the rate of fill (CalRecycle 2020f).

The Avenal Regional Landfill has a maximum permitted disposal rate of 6,000 tons per day, and in 2019 accepted a total of 146,001 tons, or an average of 487 tons per day (CalRecycle 2020e). The total permitted capacity of Avenal Landfill is 36.3 million cubic yards, with a remaining capacity of approximately 30.3 million cubic yards, as of September 2014. (Based on annual volume of disposal since 2014 [approx. 200,000 cubic yards per year], it is roughly estimated that Avenal Landfill had a remaining capacity of approximately 29.0 million cubic yards at the end of 2020.) The facility's estimated closure year is 2042, with the actual closure date depending on the rate of fill (CalRecycle 2020f). Based on the above, it is roughly estimated that the combined remaining capacity for the Chemical Waste Management Landfill and the Avenal Regional Landfill was approximately 44.0 million cubic yards at the end of 2020.

Greenwaste is disposed at the Kochergen Farms Composting Facility, located near the intersection of Avenal Cutoff Road and 34th Avenue.

Regulatory Context

State of California

Sustainable Groundwater Management Act

In September 2014, Governor Brown signed the Sustainable Groundwater Management Act (SGMA). The goal of the legislation is to sustainability manage California's groundwater basins identified as medium to critically overdrafted subbasins. SGMA required that all medium to critically over drafted

subbasins identified by DWR be managed by a groundwater sustainability agency (GSA). The GSA is responsible for locally managing the groundwater subbasin through the development and implementation a Groundwater Sustainability Plan (GSP). Medium and high priority groundwater subbasins are required to submit their GSP by 2022 and critically overdrafted subbasin were required to submit their GSP by 2020. The project site is located within the Tulare Lake Subbasin which was identified as high priority by DWR due to its critically overdrafted groundwater conditions. The Subbasin includes five GSAs including the Southwest Kings GSA which covers the project site. The GSAs are responsible for locally managing the groundwater subbasin through the development and implementation a Groundwater Sustainability Plan (GSP). The GSP for the Tulare Subbasin was adopted by the five GSPs in January 2020. The GSP estimated that the long-term sustainable yield for the Subbasin is approximately 300,000 acre-feet per year across 311,000 acres of irrigated land (historical average acreage) within the Subbasin (DWR 2020, p. ES-17).

California Integrated Waste Management Act

In 1989, the legislature enacted the Integrated Waste Management Act (AB 939), which required all California cities and counties to divert 50 percent of its solid waste from being disposed in landfills. In 2008, the legislature enacted SB 1016, which did not change the required 50 percent diversion rate, but altered the method of measuring compliance by implementing a simplified measure of local jurisdictions' performance.

Kings County

2035 Kings County General Plan

The 2035 Kings County General Plan contains the following goals, objectives, and policies related to water supply and wastewater collection and treatment that are relevant to the Utica Avenue Solar Project:

Resource Conservation Element

B. Water Resources

RC GOAL A1 Beneficially use, efficiently manage, and protect water resources while developing strategies to capture additional water sources that may become available to ensure long-term sustainable water supplies for the region.

RC OBJECTIVE A1.1 Maintain and Protect Existing Water Supplies.

RC Policy A1.1.2: Review new discretionary development proposals, including new or expanded uses within agricultural zone districts, to ensure that there are adequate water supplies to accommodate such uses. Projects should provide evidence of adequate and sustainable water availability prior to approval of a tentative map or other land use approval.

RC OBJECTIVE A1.2 Conserve and reuse water to provide for the efficient use of water resources.

RC Policy A1.2.2: Require the use of low water consuming, drought-tolerant and native landscaping and other water conserving techniques, such as mulching, drip irrigation and moisture sensors, for new development.

RC OBJECTIVE A1.3 Secure additional water supply sources to meet current and future water demand.

RC Policy A1.3.2: Evaluate new urban development for compliance to SB610 and SB221 to ensure that adequate water supply sources and facilities are available to accommodate the new demand that would be created by such development.

RC OBJECTIVE A1.4 Protect the quality of surface water and groundwater resources in accordance with applicable federal, state and regional requirements and regulations.

RC Policy A1.4.4: Encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.

RC OBJECTIVE A1.6 Protect groundwater quality by applying development standards which seek to prevent pollution of surface or groundwater and net loss of natural water features.

RC Policy A1.6.2: Support measures to ensure that water users do not unreasonably use groundwater resources.

Kings County Integrated Waste Management Plan

Adopted in 1995, the Kings County Integrated Waste Management Plan (CIWMP) was prepared in order to demonstrate how the County’s solid waste would be reduced by 25 percent by 1995 and 50 percent by 2000, as required under AB 939. The CIMWMP addresses the long-term ability to ensure the implementation of countywide diversion programs and provision of adequate disposal capacity through siting of disposal and transformation facilities. The Kings County CIWMP incorporates the Source Reduction and Recycling Element (CIWMP) and Household Hazardous Waste Element (HHWE)(Kings County 1995).

Kings County Code of Ordinances

Solid Waste Separation

Section 13-11 of the Code of Ordinances requires that recyclables be separated from solid waste at the premises where the solid waste is generated, and that recyclables be placed into different containers for collection (Kings County 2016b).

Kings County Improvement Standards

The Kings County Improvements Standards serves as an engineering reference for Kings County staff and private parties in the design and construction of improvements for public works projects and private

development improvements. The standards include engineering design specifications for the construction of streets, water supply systems, storm drainage, and sewage disposal (Kings County 2003).

Environmental Evaluation

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or stormwater drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects?**

Water Treatment

During the construction and decommissioning phases, the Utica Avenue Solar Project would use untreated water that would be purchased from off-site sources and trucked to the site. During construction, project operations, and decommissioning, drinking water would be provided by bottled water delivered by truck. Therefore, no new or expanded water treatment facilities are planned or required for the project which could cause significant environmental effects. (See item 'b' below for a detailed discussion of water supply.)

Wastewater Treatment

The Utica Avenue Solar Project will have no permanent on-site staff and will not have an O&M building with a septic and leachfield system. Workers who will occasionally visit the solar facility for routine inspection, maintenance, panel washing, and repair tasks would utilize portable chemical toilets which would be serviced by a licensed contractor as needed. During construction sanitary needs will also be provided by portable chemical toilets. Since the Utica Avenue Solar Project would not include the construction of any wastewater treatment facilities, the project would have *no impact* in terms of construction or expansion of such facilities.

Stormwater Drainage

No new stormwater drainage facilities are planned to be constructed for the Utica Avenue Solar Project. Under current conditions, rainfall percolates into the soil with little or no runoff leaving the site. The terrain of the project site is virtually flat, with a maximum gradient of 0.4 percent, and the project will result in no substantial modification of existing site grades. The project will introduce very few structural elements with impervious surfaces that would impede direct percolation of rainwater into the soil. The equipment pads and small parking area would result in less than 0.2 percent impervious surface coverage of the site, with 91.3 percent of the site retained in vegetated cover and 8.5 percent devoted to permeable gravel driveways. During normal rain events, runoff from impervious surfaces would be absorbed by the adjacent vegetated ground and percolate into the soil. During more intense or prolonged storm events, the ground would become saturated and relatively minor volumes of stormwater may temporarily pond on the surface and gradually percolate into the soil, as occurs under existing conditions. Due to the virtually level ground conditions, and the very minor introduction of impervious surfaces to the site by the project, the potential for stormwater to be mobilized and concentrated in sustained runoff flows is unlikely to occur. Therefore, the Utica Avenue Solar Project would not require the construction of new

stormwater drainage facilities, and the project would have *no impact* in terms of construction or expansion of such facilities.

Electric Power

The Utica Avenue Solar Project will itself be a power generating facility; however, and electric service from the existing PG&E system would be required for certain project phases. During construction, the project would receive service power from the existing electrical distribution line that runs along the south side of Utica Avenue, and would also have backup generators available on site. During project operations, the solar facility would have service power available from PG&E when the project is not powered by on-site generation. During decommissioning, the service connections to PG&E's system would remain in place until they are no longer needed.

The service line or gen-tie line connecting the solar facility to the PG&E distribution line on Utica Avenue would involve installation of electrical conduit in a typical utility trench. The installation and removal of electrical service connections to the Utica Avenue Solar Facility would not result in significant environmental effects.

Natural Gas

The Utica Avenue Solar Project would not require the use of natural gas for power generation or other purposes.

Telecommunications

Telecommunications to the Utica Avenue Solar facility would likely be provided via fiber-optic cable which would be installed with electrical conduit for the connection to the PG&E system, as described above. The installation of telecommunications facilities to serve the Utica Avenue Solar Facility would not result in significant environmental effects.

Conclusion

Less-than-Significant Impact. The Utica Avenue Solar Project would not require or result in the relocation or construction of new or expanded facilities for water, wastewater treatment facilities or stormwater drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects; therefore, the impact would be *less-than-significant*.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. The Utica Avenue Solar Project would require water supplies during construction, operation, and decommissioning, as discussed in turn below.

Construction

During the grading and construction phases, water would be regularly applied to exposed soils and internal access driveways for dust suppression. During earthwork, water would also be required in

soil conditioning for optimum moisture content. As discussed in the Section 2.2. *Project Description*, it is estimated that the 3 MW solar project will require a total of 5.9 acre-feet of water during its 3-month construction period. On a per-acre basis, water demand for construction would represent a one-time use of approximately 0.2 acre-feet per acre, which would be far less than the average consumption of 2.6 acre-feet per acre per year for irrigated agriculture in the Dudley Ridge Water District. As noted under “Setting,” the project site has no water supply available within the Dudley Ridge Water District. The project site is not eligible to receive surface water allocation from the State Water Project and there are no water conveyance facilities in the project vicinity in any case. Groundwater pumping does not occur within the District due to low yields and poor groundwater quality. Therefore, water for construction would be obtained from a source outside the District and hauled to the site via tanker truck. This could include purchase of surface water on the open market, or another source. Under California Water Code Section 10910(i), “hauled water is not considered a source of water” and therefore the source of that water is not required to be identified in a CEQA document. It is expected that the relatively small volume of water required for project construction would be available for purchase and hauling to the project site under normal, dry, and multiple dry year conditions.

Project Operation

During project operation, non-potable water will be required for activities such as panel cleaning, washing or rinsing equipment, and other operational uses. As described in Section 2.2. *Project Description*, the combined water usage from all operational activities is estimated to total 0.3 acre-feet annually over the 29.5-acre project site. This would be equivalent to 0.01 acre-foot per acre per year, which would be far less than the average consumption of 2.6 acre-feet per acre per year for irrigated agriculture in the Water District. As discussed above under “Project Construction,” there is no formal source of water available at the project, either from groundwater pumping or surface water deliveries. Therefore, water for facility operations would be obtained from a source outside the District and hauled to the site via tanker truck. This could include purchase of surface water on the open market, or another source. Under California Water Code Section 10910(i), “hauled water is not considered a source of water” and therefore the source of that water is not required to be identified in a CEQA document. It is expected that the relatively small volume of water required annually for project operations would be available for purchase and hauling to the project site under normal, dry, and multiple dry year conditions.

Decommissioning

Untreated water would be required during decommissioning, although the volume of water required is expected to be less than required during the construction phase. Since vegetative cover would be maintained on the site during deconstruction, there would be relatively little exposed soil that would require watering for dust suppression. Similarly, water would not be required for soil conditioning during grading. The total water demand during decommissioning is expected to be substantially less than the estimated 5.9 acre-feet required during project construction, although it assumed here that water demand during decommissioning would be about same as during construction. On a per-acre basis, water demand for decommissioning would represent a one-time use of approximately 0.2 acre-feet per acre, which would be far less than the average consumption of 2.6 acre-feet per acre per year by irrigated agriculture in the Water District. As discussed above under “Construction,” there is no source of water available at the project, either from groundwater pumping or surface water deliveries. Thus water for decommissioning would be obtained from a source outside the District and hauled to the site via tanker truck. This could include purchase of surface water on the

open market, or another source. Under California Water Code Section 10910(i), “hailed water is not considered a source of water” and therefore the source of that water is not required to be identified in a CEQA document. It is expected that the relatively small volume of water required for project decommissioning would be available for purchase and hauling to the project site under normal, dry, and multiple dry year conditions.

In summary, the Utica Avenue Solar Project would have a *less than significant* impact on water supplies.

Reasonably Foreseeable Future Development

The water supply impacts associated with reasonably foreseeable development are addressed in Section 4.21. *Mandatory Findings of Significance*, item ‘b’ (cumulative impacts). As discussed, there are a number of reasonably foreseeable cumulative solar projects in Kings County. With respect to water supply, each cumulative solar project would require water during construction and operation. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. It is estimated that construction water demand for each project would be a one-time use of about 0.2 af per acre, similar to that for the Utica Avenue Solar Project. Most of the cumulative projects are located within the Westside Subbasin located north of State Route 41. The GSA for the Westside Subbasin is the Westlands Water District (WWD), which has established a numerical long-term groundwater extraction limit is 0.6 afy per acre within that GSA. For most cumulative projects, construction water would be supplied by existing agricultural wells in the area and by surface water deliveries of Central Valley Project water. The approved and pending solar projects in WWD are entitled to 5 acre-feet per 160 acres per year. It is expected that the water demands for the construction of the foreseeable solar projects in the area would be met by a combination of groundwater and surface water sources, with potential transfers of purchased supplemental water if needed.

Two of the foreseeable projects (Leo Solar and Jackson Ranch) are located south of State Route 41 and outside of the Westside Subbasin. The Leo Solar Project is an approved 5-MW project located 10 miles south of the Utica Avenue Solar Project site on the Kern County line. The relatively small volume of water required by the Leo Solar Project would also be provided by tanker truck. The Jackson Ranch project is a mixed use commercial development located 3.0 miles east at the southeast corner of Utica Avenue and Interstate 5. The water supply for the Jackson Ranch project would be provided by the Kettleman City Community Services District in exchange for the agricultural water allocations for the Jackson Ranch site from the State Water Project under pre-project conditions.

The operational water supplies for the majority of the foreseeable projects would be mainly used for panel washing at the solar facilities. As discussed in in Section 4.10. *Hydrology and Water Quality*, operational water demands for the Utica Avenue Solar Project are estimated to be approximately 0.01 afy per acre, or about 5 percent of total construction water demands. As discussed above, the Utica Avenue Solar Project’s operational demands would also be met from purchased water that is hauled to the facility by tanker truck. Assuming that most of the foreseeable projects (most of which are located in the Westside Subbasin) all rely solely on well water for operational needs, the cumulative operational water demands of about 0.01 afy per acre would be substantially below the Westside GSA’s long-term groundwater extraction limit of 0.6 afy per acre. Thus, groundwater supplies would be available to serve reasonably foreseeable future development during normal, dry,

and multiple dry years, without adversely affecting the sustainability of the groundwater basin. Therefore, the impact to water supplies from the operation of the Utica Avenue Solar Project and other reasonably foreseeable future development would be *less than significant*.

c) *Would the project 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 above, the Utica Avenue Solar Project would not require a wastewater treatment system or a septic tank and leachfield system since operation of the solar facility would include no permanent on-site staff or an O&M building. The sanitary needs of workers who would occasionally visit the facility to perform routine inspections, maintenance, panel washing, and repairs would be provided by portable chemical toilets which would be serviced by a licensed contractor as needed. During construction, portable chemical toilets would also be provided. Therefore, the Utica Avenue Solar Project would have *no impact* on the treatment capacity of a wastewater treatment provider.

d) *Would the project generate solid waste in excess of state or local standards, in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste goals?*

Less-than-Significant Impact. The development of Utica Avenue Solar Project would temporarily generate construction waste during the development phase, and would generate solid waste during operation of the solar facility, and also during the decommissioning phase. The solid waste impacts during the construction, operational, and decommissioning phases of the project are discussed in turn below. [Note: The following discussion is focused on non-hazardous waste only. Hazardous waste disposal including disposal of damaged or defective solar modules is addressed in Section 4.9. *Hazards and Hazardous Materials.*]

Construction

During construction of the solar facility, the waste generated would primarily consist of non-hazardous waste materials such as packing containers and materials, waste lumber, wood pallets, scrap metal, glass and paper. (Since site clearing would involve mulching or plowing under of crop remnants, it is anticipated that minimal greenwaste would be generated.) Based on construction waste generation rates at a similar solar PV project in northern Los Angeles County, the construction of the Utica Avenue Solar Project is estimated to generate approximately 26.5 cubic yards (cy) of construction waste per MW of installed generating capacity (LA County 2010, p. 4-51). [1 cubic yard (cy) of construction waste is equivalent to approximately 1 ton of construction waste (CalRecycle 2020a).] Thus construction of the 3 MW solar facility would generate approximately 79.5 tons (or cy), or 1.325 tons per workday on average (over the 3-month construction period [60 working days]). Much of the construction waste materials would be reusable (e.g., wood pallets and packing crates), or recyclable (e.g., scrap metal, paper, glass), and doing so has been shown to be cost effective (CalRecycle 2020b). It is assumed that 65 percent of the construction waste would be recycled as required under the CALGreen Code (CBSC 2019). Thus approximately 27.83 tons (0.46 tons per day) of construction waste from the project would be disposed of at a Class III landfill.

Assuming that all of the non-recycled waste would be hauled to either the Chemical Waste Management Landfill or the Avenal Regional Landfill, the 0.46 tons of daily construction waste generated by the project would represent about 0.04 percent of the current the combined daily average solid waste disposal (approx. 1,100 tons per day) at the two landfills. Thus if all of project construction waste was disposed at Chemical Waste Management Landfill, the solid waste accepted at the landfill would remain well below its 2,000 ton per day permitted limit. Similarly, if all of project construction waste was disposed at Avenal Regional Landfill, the solid waste accepted at the landfill would remain well below its 6,000 ton per day permitted limit. Additionally, the total 27.83 tons (or 27.83 cy) of non-recycled construction waste generated during the construction period would represent 0.0002 percent of the approximately 15.0 million cy of remaining capacity of the Chemical Waste Management Landfill, or 0.0001 percent of the approximately 29.0 million cy of remaining capacity of the Avenal Regional Landfill, or approximately 0.00006 percent of the combined remaining capacity at both landfills. Both the daily disposal rate and the total construction waste generated by the project would represent small increases in solid waste accepted at these Kings County landfills.

Operations

During operation of the Utica Avenue Solar Project, the non-hazardous waste generated would include typical refuse generated by workers such as scrap metal and machine parts, broken or defective electrical components, oily rags, packing material from deliveries, paper, cardboard, plastic, empty containers, and miscellaneous solid waste. The solar facility operator would contract with a commercial waste collection service which would haul the waste to the Kings Waste and Recycling Authority Material Recovery Facility in Hanford for sorting and recycling and/or transport of the non-recyclable waste to a local landfill site.

Based on operational solid waste generation rates at a similar solar PV project in northern Los Angeles County, the Utica Avenue Solar Project is estimated to generate approximately 0.9 cubic yards (cy) of solid waste per year per MW of installed generating capacity (LA County 2010, p. 4-53). [Approximately 4 cubic yards (cy) of uncompacted solid waste from commercial/industrial sources is equivalent to approximately 1 ton of municipal solid waste (USEPA 1997).] Upon full operation, the project would generate a total of approximately 2.7 cubic yards, or approximately 0.68 tons of non-hazardous solid waste per year. Assuming that at least 50 percent of the solid waste would be diverted through recycling, the remaining 0.34 tons (1.36 cy) of uncompacted solid waste from the project would be disposed of at a Class III landfill per year. At the landfill, in-place compaction would reduce the volume by 66 percent, resulting in 0.46 cy per year of utilized landfill capacity (CalRecycle 2014). The 0.34 tons of solid waste landfilled by the project annually (0.001 tons per workday) would represent a small fraction of the solid waste disposed at the Chemical Waste Management and Avenal Landfills, which currently receive a combined average of about 1,100 tons (or 1,463 cy) per day, and which would remain well below the combined 8,000 ton per day permitted limit for both landfills. Both the daily disposal rate and the total non-hazardous solid waste generated by the operation of the Utica Avenue Solar Project would represent very small increases in solid waste accepted at the Chemical Waste Management Landfill and the Avenal Regional Landfill.

Decommissioning

At the end of its useful life, the Utica Avenue Solar Facility would be deconstructed in accordance with its approved Decommissioning and Soil Reclamation Plan (DSRP). As required under the DSRP,

the equipment and fixtures, such as solar modules and racking, would be recycled and reused to the extent practicable. Some materials may be returned to the manufacturer for reuse or otherwise reused on the secondary market. Waste materials that are not salvaged for reuse would be shipped 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 Chemical Waste Management Landfill or the Avenal Landfill. Assuming that the volume of landfilled solid waste from decommissioning would be similar to the solid waste generated during construction, the approximately 27.83 cy (or 27.83 tons) to be disposed would represent less than one hour of disposal at the two landfills at current disposal rates. It is expected that sufficient landfill capacity will be available in 25 to 30 years to accommodate this solid waste when the Utica Avenue Solar Facility is decommissioned. In the unlikely event that the Chemical Waste Management and Avenal Landfills are closed prior to the time of project decommissioning, it is anticipated that the County will have demonstrated that it has at least 15 years of remaining landfill capacity remaining in the County, as required by the California Integrated Waste Management Act (CalRecycle 2020c). All waste associated with decommissioning will be disposed of or recycled in accordance with applicable laws.

Summary

The total solid waste generated by operation of project over its 20-year life that would be landfilled would be approximately 9.2 cy (assuming compaction and 50 percent diversion), or 6.8 tons. When combined with the 27.83 cy (or 27.83 tons) of construction waste generated during that period (assuming 65 percent diversion), plus an equivalent volume generated during decommissioning, the total landfilled solid waste from construction and operation of Utica Avenue Solar Project would be about 64.8 cy (compacted), or 62.4 tons. As discussed under 'Setting,' the combined capacity remaining at the Chemical Waste Management and Avenal Landfills is approximately 44.0 million tons. The total amount of solid waste disposed by the Utica Avenue Solar Project would represent 0.00014 percent of the remaining disposal capacity, or the equivalent of less than one hour of the volume of solid waste currently accepted at the two landfills. Thus, the solid waste generated by the Utica Avenue Solar Project would not appreciably shorten the operating life of the Kings County landfills.

In summary, the Utica Avenue Solar Project would not result in exceedance of the local landfills' permitted daily disposal limits, and the facilities have sufficient capacity to accept solid waste generated during all phases of the project. As discussed under item 'e' below, the project would comply with all solid waste reduction requirements and would not impair their attainment. Therefore, the Utica Avenue Solar Project's impact in terms of solid waste would be *less than significant*.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The California Integrated Waste Management Act of 1989 (AB 939) requires each city and county in California to prepare, adopt, and implement a Source Reduction and Recycling Element. Policies pertaining to solid waste, source reduction, and recycling are identified in the Kings County Integrated Waste Management Plan (Kings County 1995). A Solid Waste Management Plan (SWMP) for the Utica Avenue Solar Project will be prepared in compliance with Section

1112.B.2 of the Kings County Development Code which requires the preparation and implementation of solid waste management plans for solar voltaic electrical facilities in Agricultural Zoning Districts. The SWMP will set forth detailed guidance for the handling, storage, and disposal of solid waste generated during the construction and operational phases of the Utica Avenue Solar Project. In particular, the SWMP will provide for implementation of the State’s Mandatory Commercial Recycling Statute which requires businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange for recycling services. The SWMP would not address solid waste generated during project decommissioning, which will be addressed in a separate Decommissioning and Soil Reclamation Plan (DSRP) as required by the County Development Code, which will be carried forward as a condition of approval for the project’s Conditional Use Permit.

The Utica Avenue Solar Project would generate an estimated total of 213 cy of solid waste during construction, operation, and decommissioning over the 20-year life of the project. This total volume of solid waste would be reduced to 64.8 cy after recycling, reuse, and compaction in place at the Chemical Waste Management Landfill and/or the Avenal Regional Landfill. These landfill facilities are permitted by the County and inspected monthly by the Kings County Health Department, Environmental Health Services Division. Some construction waste would be recycled rather than being disposed at the landfills. As discussed above, the local landfills have sufficient capacity to accept all anticipated generated during the life of the project. The project operator would contract with a franchised waste hauler which would follow the disposal and diversion requirements of the Kings County Integrated Waste Management Plan. Project waste would be disposed of consistent with applicable federal, state, and local recycling, reduction, and waste requirements and policies. Any hazardous materials and wastes would be recycled, treated, and disposed of in accordance with the Solid Waste Management Plan to be prepared for the project, and in compliance with federal, state, and local laws. Therefore, the Utica Avenue Solar Project would have *no impact* in terms of compliance with applicable laws and regulations related to solid waste.

REFERENCES – UTILITIES AND SERVICE SYSTEMS

- | | |
|------------------|---|
| CBSC 2019 | California Building Standards Commission (CBSC). 2019. <i>2019 California Green Building Standards Code (“CALGreen Code”)</i> . California Code of Regulations, Title 24, Part 11. Published July 2019. Effective January 1, 2020.
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https://www.recyclesmart.org/filebrowser/download/16477 |
| CalRecycle 2019 | California Department of Resources Recycling and Recovery (CalRecycle). 2019. <i>State of Disposal and Recycling in California: For Calendar Year 2017</i> . February.
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CalRecycle 2022f	California Department of Resources Recycling and Recovery (CalRecycle) Website. 2022. <i>SWIS Facility/Site Data Exports – Site Activities</i> . February https://www2.calrecycle.ca.gov/SolidWaste/Site/DataExport
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Kings County 1995	County of Kings. 1995. <i>Kings County – Countywide Integrated Waste Management Plan</i> . Adopted April 1995. https://www.countyofkings.com/home/showdocument?id=3092
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US EPA 1997	U.S. Environmental Protection Agency. 1997. <i>Measuring Recycling – A Guide for State and Local Governments</i> . EPA530-R-97-011. September. https://archive.epa.gov/wastes/conserves/tools/recmeas/web/pdf/guide.pdf
Waste Mgmt. 2022	Waste Management. 2020. Waste Management Website. <i>Facility Overview – Kettleman Hills</i> . February. http://kettlemanhillslandfill.wm.com/factsheets/index.jsp

4.20. WILDFIRE

<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
<i>a) Substantially impair an adopted emergency response plan or emergency evacuation plan?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Context

State of California

Senate Bill (SB) 1241

SB 1241 (2012) requires the legislative bodies of cities and counties to update their general plan safety elements to address the protection of the community from unreasonable risks associated with wildland and urban fires. The update of the safety element must address fire risks on land classified as State Responsibility Area (SRA) and very high fire hazard severity zones. The proposed project is not located in an SRA, or an area classified as being a very high fire hazard severity zone. The nearest SRA is approximately 18 miles southwest (CAL FIRE 2019). Kings County Fire Department provides fire protection services for the project site.

Kings County

2035 Kings County General Plan

The Kings County General Plan Health and Safety Element addresses fire hazard risks throughout the county. The primary risk factors identified include the presence of dry vegetation, as well as hot and dry weather. The remoteness of some areas of the county adds an additional hazard, as the distance from fire stations and lack of road access may prevent a timely response. While topography can be an important factor in wildfire risk, most of Kings County is essentially flat, reducing the wildfire risk. Health and Safety Objective C2.2 from the General Plan identifies fire prevention policies that center around ensuring that the Kings County Fire Department receives necessary funding and that structures adhere to Fire Code Standards (Kings County 2010e).

Environmental Evaluation

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Utica Avenue Solar Project site is not located in or near a state responsibility area or on lands classified as very high fire hazard severity zones. The map of Fire Hazard Severity Zones (FHSZ) in the State Responsibility Area (SRA) for Kings County prepared by the California Department of Forestry and Fire Protection (CAL FIRE) shows the project area as being within a Local Responsibility Area (LRA)(CAL FIRE 2007). The nearest areas mapped as being within the SRA are located southwest of State Route 33, approximately 15 miles southwest of the Utica Avenue Solar Project site. The nearest area within the SRA that is zoned as Very High Severity on the FHSZ map is located in the Diablo Range at the western edge of Kings County, at least 20 miles from the Utica Avenue Solar Project site.

CALFIRE’s map of Fire Hazard Severity Zones in Local Responsibility Area (LRA) for Kings County shows the project area as being “unzoned” for fire hazard. The nearest areas within the Kings County LRA that are zoned as High Severity are located in the Kettleman Hills at least 11 miles southwest of the project site, and there are no areas in the Kings County LRA that are zoned Very High Severity (CAL FIRE 2007). The Health and Safety Element of the Kings County General Plan includes a map of Potential Fire Hazards (Figure HS – 9) which shows the project site as mapped “within 2400 meters (1.5 miles) of a moderate threat” for potential fire, with lands adjacent to the site being subject to “little or no threat” for potential fire (Kings County 2010e).

In times of emergency or disaster response, the nearby State highways would serve as primary evacuation routes, and designated County roadways in the area would serve as secondary routes. In the project vicinity, the primary evacuation routes include I-5 and SR-41, and the nearest secondary routes are Utica Avenue and 6th Avenue (Kings County 2010e). Utica Avenue would provide a local escape route for the project. The Utica Avenue Solar Project would not result in changes to the adjacent roadway network, and the solar facility’s small operational workforce would not create or increase traffic congestion during times of emergency or disaster. During the construction phase, slow moving vehicles or trucks delivering large pieces of equipment or components could result in traffic slowdowns, although such conditions would be temporary and infrequent and would be managed pursuant to traffic controls specified in Mitigation Measure TR-1 (see Section 4.17. *Transportation*).

In summary, the Utica Avenue Solar Project is not located in or near a State Responsibility Area mapped as Very High Severity, or a high fire hazard zone designated by Kings County, and the project construction and operation would not reduce the effectiveness of Utica Avenue as an evacuation route. Therefore, the Utica Avenue Solar Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and there would be *no impact*.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. Since the Utica Avenue Solar Project is not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard severity zones, this significance criterion does not apply and there would be *no impact*.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. Since the Utica Avenue Solar Project is not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard severity zones, this significance criterion does not apply and there would be *no impact*.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. Since the Utica Avenue Solar Project is not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard severity zones, this significance criterion does not apply and there would be *no impact*.

REFERENCES – WILDFIRE

- CAL FIRE 2007 California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zones Maps*. November.
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- Kings County 2010e Kings County. 2010. *2035 Kings County General Plan – Health and Safety Element*. Adopted January 26.
<http://www.countyofkings.com/home/showdocument?id=3118>

4.21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) <i>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?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <i>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.)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) <i>Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

- 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 Incorporated. As discussed in Section 4.4. *Biological Resources*, the Utica Avenue Solar Project could result in potentially significant effects to several species including San Joaquin kit fox, burrowing owl, Swainson's hawk, migratory birds, and American badger. However, with the implementation of Mitigation Measures BIO-1 through BIO-5, these potential impacts would be reduced to *less-than-significant* levels. The Utica Avenue Solar Project would have no impact or a less-than-significant impact on all other species and biological communities.

As discussed in Section 4.5. *Cultural Resources*, the Utica Avenue Solar Project could result in potentially significant effects to historic and prehistoric archaeological resources, including human burials. However, with the implementation of Mitigation Measures CR-1 and CR-2, these potential impacts would be reduced to *less-than-significant* levels.

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

- 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 Incorporated. This discussion considers the potential impacts of the Utica Avenue Solar Project combined with the incremental effects of other past, present, and probable future projects in the vicinity. These cumulative projects comprise those included on Kings County's April 2022 list of pending and approved solar projects. These cumulative projects are listed in Table MSF-1, on the next page, and shown in Figure MSF-1. It is noted that all of the projects listed in Table MSF-1 comprise solar PV generating facilities. Most other projects that have been proposed and approved in Kings County over the past several years have consisted of minor projects such as cell towers, or projects with temporary or infrequent operation (e.g., Kelly Slater's Surf Ranch), or projects that are too far from the project area to contribute to any cumulatively significant effect (e.g., relocation of Baker Commodities facility east of Hanford; biogas pipeline projects and Pittman poultry farm projects in northeastern Kings County), or projects for which development applications have been formally withdrawn or closed due to inactivity (e.g., Quay Valley new community project). As such, these projects were not included on the list in Table MSF-1 since there is no potential that they would contribute to a cumulatively significant impact associated with the Utica Avenue Solar Project.

It is noted that almost all of the cumulative projects are located at least 10 miles from the Utica Avenue Solar Project site. For projects located beyond this distance, the potential for impacts from these projects to combine with potential impacts from the proposed project and result in a cumulatively significant impact would generally be negligible. There are two approved projects within a 10-mile radius of the Utica Avenue Solar Project site. These include the Leo Solar Project and the Jackson Ranch Specific Plan project, which are described in turn below.

The Leo Solar Project is a planned 5-MW PV solar facility on a 30-acre site located on the north side of the Kings-Kern County line between the California Aqueduct and 25th Avenue, approximately 9.5 miles south of the Utica Avenue Solar Project site. The Leo Solar Project was approved by the Kings County Planning Commission on January 6, 2020, and has not yet begun construction.

The Jackson Ranch Specific Plan provides for a service commercial center to be developed on an approximately 429-acre site at the southwest corner of Utica Avenue and Interstate 5, approximately 2.5 miles west of the Utica Avenue Solar Project site. The commercial development would occupy approximately 141 acres and would include a range of commercial, retail, light industrial, research and development, office, and hospitality uses. The remaining 268 acres is

designated as Specialty Agriculture. The Jackson Ranch Specific Plan was approved by the Kings County Board of Supervisors on December 8, 2020, and has not yet begun construction.

TABLE MFS-1
PENDING, APPROVED, AND COMPLETED PROJECTS

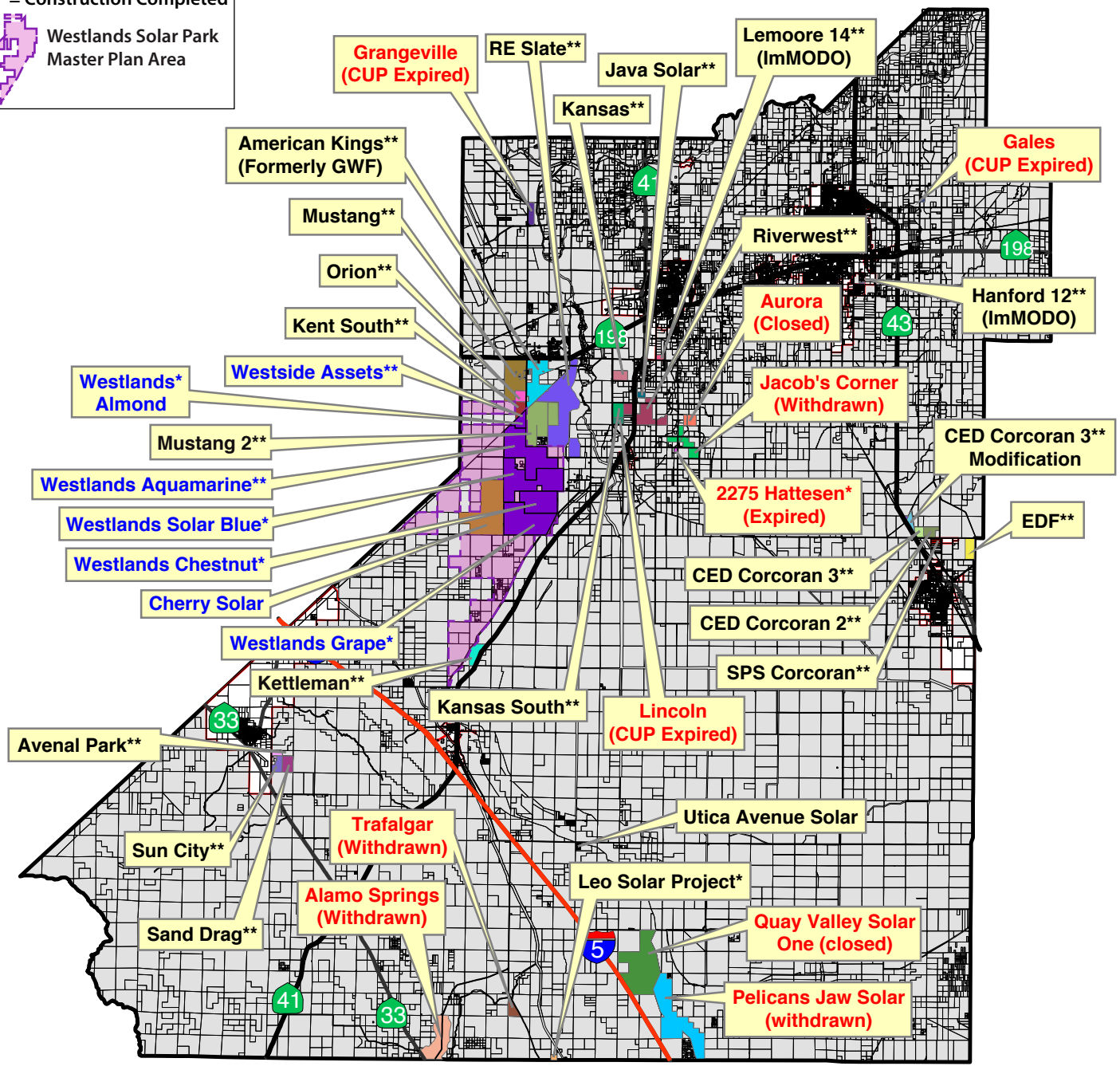
Project	Acreage	Generating Capacity (MW)	Status (As of 4/8/22)
Sun City	180	20	Constructed
Sand Drag	240	19	Constructed
Avenal Park	86	9	Constructed
CED Corcoran Solar 2	124	20	Constructed
SPS Corcoran	228	20	Constructed
American Kings (former GWF)	978	125	Constructed
Sunpower Henrietta (Riverwest)	836	136	Constructed
Kansas South	230	20	Constructed
Kansas	200	20	Constructed
Mustang	1,422	160	Constructed
Corcoran ID (EDF)	200	20	Constructed
Orion	200	20	Constructed
Kent South	200	20	Constructed
Kettleman	220	20	Constructed
Freshwater (PG&E)	160	20	Constructed
CED Corcoran Solar 3	138	20	Constructed
Hanford 12 (ImMODO)	19	3	Constructed
2275 Hattesen	16	2	CUP Approved
Westside Solar Project*	40	2	Constructed
Lemoore 14 (ImMODO)	60	8	Constructed
Java Solar	96	15	Constructed
Mustang 2	1,450	150	Constructed
Leo Solar	20	5	CUP Approved
Westlands Aquamarine*	1,825	250	Constructed
CED Corcoran Solar 3 (Modification)	17	3	Constructed
Slate	2,490	300	Constructed
Westlands Solar Blue*	1,895	250	CUP Approved
Westlands Chestnut*	1,080	150	CUP Approved
Westlands Grape*	1,759	250	CUP Approved
Westlands Almond*	168	20	CUP Approved
Cherry Solar	2,079	250	Pending
Utica Avenue Solar	30	3	Pending
Totals	18,686	2,180	

* Projects located within Westlands Solar Park.

Source: Kings County CDA, April 2022.

* = CUP Approved
 ** = Construction Completed

 Westlands Solar Park Master Plan Area



Legend for Solar PV Application in Unincorporated Areas of Kings County

2275 HATTESEN (Closed)	EDF - 20 MW	KETTLEMAN - 20 MW	RIVER WEST - 136 MW	WESTLANDS ALMOND - 20 MW
ALAMO SPRINGS (Closed)	GALES (Expired)	LEMOORE 14 (ImMODO) - 8 MW	SAND DRAG - 19 MW	WESTLANDS AQUAMARINE - 250 MW
AMERICAN KINGS (Formerly GWF) - 125 MW	GRANGEVILLE (Expired)	LEO - 3 MW	SLATE SOLAR PROJECT - 300 MW	WESTLANDS CHESTNUT - 150 MW
AURORA (Withdrawn)	HANFORD 12 (ImMODO) - 3 MW	LINCOLN (Expired)	SPS CORCORAN - 20 MW	WESTLANDS GRAPE - 250 MW
AVENAL PARK - 9 MW	JACOB'S CORNER (Withdrawn)	MUSTANG - 160 MW	SUN CITY - 20 MW	WESTLANDS SOLAR BLUE - 250 MW
CED CORCORAN 2 - 19.75 MW	JAVA - 15 MW	MUSTANG 2 - 150 MW	TRAFALGAR (Withdrawn)	WESTSIDE ASSETS, LLC - 2 MW
CED CORCORAN 3 - 20 MW	KANSAS - 20 MW	ORION - 20 MW	UTICA SOLAR - 3 MW	
CED CORCORAN 3 MODIFICATION - 3.12 MW	KANSAS SOUTH - 20 MW	PELICANS JAW (Withdrawn)		
CHERRY SOLAR - 250 MW	KENT SOUTH - 20 MW	QUAY VALLEY SOLAR ONE (Closed)		

Source: Kings County Community Development Agency, April 2022

Pending, Approved, and Completed Solar Projects
Figure MFS-1

The approach to assessing the significance of a cumulative project impact is based on the provision of Section 15065 of the CEQA Guidelines which states that the effects of a project must be “cumulatively considerable” to be considered significant. CEQA requires a two-step analysis for cumulative impacts, with the first step resulting in a determination of the significance of a cumulative impact for each environmental topic, and the second step resulting in a determination of whether the project contribution is cumulatively considerable. An affirmative finding is required for both steps in order to conclude that a project impact is cumulatively significant.

The following is an evaluation of cumulative impacts by environmental topic area. As shown in Table MFS-1, most of the cumulative projects have been approved and constructed. However, in order to capture the cumulative effects of past, current, and future projects, as required under CEQA, the following discussion includes evaluation of these “past” projects even though they are not separately addressed in the past tense.

Aesthetics

The Utica Avenue Solar Project and the other cumulative projects are generally located in areas with relatively low visual quality and without significant scenic resources in their vicinities. Given also the very low number of visual receivers in the vicinities of the cumulative projects, the visual impacts resulting from each individual solar project would be less than significant.

Most of the cumulative projects are dispersed and not visible from common viewpoints. The Utica Avenue Solar Project and other cumulative projects in the vicinity (Jackson Ranch and Leo Solar) would not be visible from common viewpoints and thus their individual visual effects would not combine to create a larger visual effect. As such, there would be no impact in terms of cumulative visual effects. In summary, the incremental aesthetic effects of the cumulative projects would not combine to produce a cumulatively significant impact, and the project *contribution would not be considerable*.

The cumulative projects would incorporate minimum and non-intrusive lighting for security, and the PV modules at the solar projects would be non-reflective and non-glare producing. The minimal lighting from the Utica Avenue Solar Project would not combine with lighting from other projects in the vicinity (Leo Solar and Jackson Ranch) to produce a greater lighting effect. Therefore, the incremental lighting from the cumulative projects would not combine to result in a cumulatively significant impact, and the project *contribution would not be considerable*.

Agriculture and Forestry Resources

Most of the cumulative projects would occupy agricultural lands that are either cultivated for row crops or used for grazing. Most of the cumulative sites are mapped as Grazing Land under the California Department of Conservation’s Farmland Mapping and Monitoring Program, and some are mapped as Farmland of Statewide Importance. The Jackson Ranch Specific Plan would result in the conversion of 10 acres of Prime Farmland, which would be mitigated through the preservation of 268 acres of farmland within the Specific Plan area (Kings County 2020). Most of the cumulative projects would incorporate dry-land farming with sheep grazing as part of their operations, while one project would incorporate crop production on a portion of its site. At the end of their

productive lives, all of the cumulative solar projects, including the Utica Avenue Solar Project, would be decommissioned. All project operators would implement soil reclamation plans with financial assurances to return the sites to their pre-project conditions as required under Kings County Development Code Section 1112(B)(2), as discussed in Section 4.2. *Agriculture and Forestry Resources*. As such, none of the cumulative projects would result in the unmitigated conversion of Farmland to non-agricultural uses. Therefore, the incremental effects from the cumulative projects upon agricultural resources would not be cumulatively significant, and the project *contribution would not be considerable*.

Most of the cumulative solar projects, including the proposed project, are located in agricultural zoning districts that permit solar generating facilities as a conditionally permitted use. The non-agricultural land uses planned for the Jackson Ranch project are permitted under the General Plan Amendment and Specific Plan approved by the County in 2020. All of the cumulative solar projects meet the required County Development Code requirements for conditional use permits, and also the requirements for solar facilities in agricultural zones. Therefore, none of the cumulative projects would conflict with applicable agricultural zoning. As such, there would be no cumulative impact in terms of land use plans, policies, and regulations pertaining to agriculture, and the project would make *no contribution* to such a cumulative impact.

Most of the cumulative solar projects, including the Utica Avenue Solar Project, are subject to Land Conservation contracts or Farmland Security Zone contracts under the Williamson Act. The Jackson Ranch project site is not subject to either form of Williamson Act contract. The Utica Avenue Solar Project is currently under a Land Conservation contract which would be required to be cancelled in conjunction with CUP approval. It is expected that the Utica Avenue Solar Project will meet the required findings for Williamson Act cancellation and therefore would not result in impacts with respect conflicting with the Williamson Act. All of the other solar projects would either initiate contract cancellation proceedings or would meet State and County principles of compatibility to enable solar generating facilities to occupy the contracted lands. The cumulative projects that elect to pursue the compatibility options would be required by the County to maintain sufficient on-site agricultural productivity to meet the State and County principles of compatibility under the Williamson Act. As such, these projects are expected to maintain active Land Conservation or Farmland Security Zone contracts for the life of the solar projects without conflicting with the Williamson Act. Thus none of the cumulative projects would individually result in significant impacts in terms of conflicting with the Williamson Act. Therefore, the cumulative impact in terms of conflicts with the Williamson Act would be less than significant, and project *contribution would not be considerable*.

In summary, the incremental impact of residual effects from the collective operations of the cumulative projects upon agricultural resources would not be cumulatively significant, and the project *contribution would not be considerable*.

With respect to forestry resources, there are no forest lands or lands zoned for forest land or timberland at or near any of the cumulative project sites, including the Utica Avenue Solar Project site. As such, the individual projects would have no impact on forest land. Therefore, there would be no cumulative impact on forest land and the project would *make no contribution* to such a cumulative impact.

Air Quality

With respect to regional air quality, the Air District guidance states that any project that would individually have a significant impact on regional air quality (i.e., exceed significance thresholds for ROG or NO_x) would also be considered to have a significant cumulative air quality impact. Project-specific emissions of ozone precursor pollutants (ROG and NO_x) and PM₁₀ were found to be less-than-significant for the proposed project, as discussed in Section 4.3. *Air Quality*. The Air District guidance also states: “[a] Lead Agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located” (SJVAPCD 2015c, p. 66). As discussed in Section 4.3. *Air Quality*, under item ‘a’, the project would fulfill its share of achieving the Air District’s emission reduction commitments in the PM₁₀ and Ozone attainment plans through its obligation to implement emission reduction measures under the Air District’s Indirect Source Rule (ISR)(Rule 9510). Therefore, the project would fully comply with the applicable air quality plans and would not conflict with or obstruct their implementation. Therefore, the project contribution to cumulative regional air quality impacts *would not be considerable*.

Local air pollutants which are relevant include PM₁₀ emissions and toxic air contaminants (TACs) from construction activity. Construction period PM₁₀ emissions would be localized. As shown in Table AQ-1, the combined construction exhaust and dust emissions from the Utica Avenue Solar Project would be less than the PM₁₀ significance threshold of 15 tons with mitigation (i.e., dust controls). Since the total PM₁₀ emissions would be below the total PM₁₀ significance threshold, construction period total PM₁₀ emissions impacts would be less than significant for the Utica Avenue Solar Project.

In evaluating cumulative PM₁₀ emissions, only those projects in the immediate project vicinity are considered because PM₁₀ concentrations disperse rapidly from the source. In the project vicinity, only the Jackson Ranch Specific Plan project, located 2.5 miles west, has been approved but not yet constructed. Depending on construction schedules, the construction of the Utica Avenue Solar Project could overlap with the construction of Jackson Ranch project. The nearest residential receptor that could be affected by construction at both sites is the rural dwelling located 0.5 mile northwest of the Utica Avenue Solar Project site, with this residential receptor also located 2.0 miles east of the Jackson Ranch project site. Since PM₁₀ concentrations disperse rapidly from the source, the PM₁₀ concentrations from the Jackson Ranch project would be greatly diminished by the time they combined with PM₁₀ emissions from the Utica Avenue Solar Project at this common off-site receptor, such that the combined PM₁₀ concentrations would be negligible. Therefore, the cumulative PM₁₀ impact associated with the project would *less-than-significant*, and the project’s contribution to cumulative PM₁₀ emissions *would not be considerable*.

With respect to cumulative emissions of Toxic Air Contaminants (TACs), it is important to note that Diesel Particulate Matter (DPM) concentrations diminish rapidly from the source. Pollutant dispersion studies by the California Air Resources Board (CARB) have shown that there is about an 80 percent drop-off in DPM concentrations at approximately 1,000 feet from the source (CARB 2005, p. 14). As discussed in Section 4.3. *Air Quality*, the construction and operation of the Utica Avenue Solar Project would result in relatively low levels of DPM emissions. Due to the substantial

distance to the nearest sensitive receptor (e.g., the nearest residence is at least 0.5 mile from the nearest project boundary), DPM emissions from project construction would disperse to negligible levels at the nearest receptor location. The DPM emissions from the Jackson Ranch, located 2.0 miles west of the rural dwelling, would similarly disperse to negligible levels at this receptor location. Thus the health impacts associated with exposure to DPM from construction and operation from the combination of the Utica Avenue Solar Project and the Jackson Ranch project are not anticipated to be significant. Since there are no other cumulative projects within several miles, it is not expected the cumulative TAC emissions from all of the known and foreseeable projects in the vicinity would result in a significant increase in cancer risk at the nearest sensitive receptor subject to cumulative emissions from these other projects and the Utica Avenue Solar Project. Therefore, the cumulative health risk impact associated with the Utica Avenue Solar Project would be *less than significant*, and the project contribution to the cumulative health risk impact would *not be considerable*.

Biological Resources

The analysis in Section 4.4. *Biological Resources* identified potential project-specific impacts to San Joaquin kit fox, burrowing owls, Swainson’s hawks, nesting raptors and migratory birds, and American badger. Mitigation measures MM BIO-1 through MM BIO-5 are specified in order to prevent potential impacts to these species at the Utica Avenue Solar Project site during project construction. The project area is not uniquely suitable for these species, and abundant habitat for these species is present on agricultural lands throughout the region. In addition, all of the other cumulative projects would be subject to similar mitigation measures in the event these species appear on any of those sites prior to construction. Thus impacts to these species would be reduced to less-than-significant levels at each cumulative project site. The combined incremental less-than-significant effects from these projects would not result in a cumulatively significant impact to these species. Therefore, the cumulative impacts to these species would not be significant, and the project *contribution would not be considerable*.

The Utica Avenue Solar Project site includes no wetlands, jurisdictional waters, streams or riparian areas, and therefore the project would have no impact upon such features and would make *no contribution* to a cumulatively significant impact to such features.

None of the cumulative projects would conflict with an applicable habitat conservation plan or a natural community conservation plan. As such, there would be *no cumulative impact* in this regard, and the project would make *no contribution* to such a cumulative impact.

In summary, the cumulative impact to biological resources would be *less than significant*, and the project *contribution would not be considerable*.

Cultural Resources

The probability that any previously undiscovered cultural resources are present at any of the cumulative project sites is low. However, in the event that buried cultural materials are encountered during grading or excavation at any of the cumulative project sites, all of the cumulative projects would be subject to mitigation measures similar to those identified for the Utica Avenue Solar Project in MM CR-1 and MM CR-2 in Section 4.5. *Cultural Resources*. The implementation of these measures at each cumulative site would ensure that site-specific impacts

to cultural resources would be reduced to less-than-significant levels at each cumulative site. The collective incremental effects after mitigation would result in a *less-than-significant cumulative impact* to cultural resources, and the project *contribution would not be considerable*.

Energy

As discussed in Section 4.6. *Energy*, the construction of the Utica Avenue Solar Project would be subject to an array of regulatory requirements related to the efficient use of fuel, use of renewable energy sources, solid waste reduction and diversion, and energy efficient building standards, among other requirements. These requirements would ensure that the Utica Avenue Solar Project and the other approved and pending projects would not result in the wasteful, inefficient, or unnecessary use of energy. Therefore, the *cumulative energy impact would be less than significant*, and the project impact would *not be cumulatively considerable*.

As is the case with the Utica Avenue Solar Project, the objective of the other cumulative solar projects is to generate renewable solar energy in order to help reduce statewide reliance on non-renewable fossil-fueled generation. The operation of the solar facilities would allow for the decommissioning of equivalent generation from natural gas fired power plants. The cumulative projects would consume a relatively small amount of electricity to operate lights and equipment, and this energy consumption would be negligible compared to the clean energy produced by the solar projects.

Geology and Soils

Potential impacts due to geologic and soils conditions tend to be highly localized and generally do not extend beyond the boundaries of a project, except for geologic effects that are regional in nature such as earthquake risk. The cumulative projects would be subject to similar geologic and soils conditions and hazards as discussed for the Utica Avenue Solar Project in Section 4.7. *Geology and Soils*. While not all hazards would be present at all sites, or to the same degree, the potential hazards include seismic shaking, liquefaction, seismic settlement, and soil expansion, among other things. The vulnerability of each cumulative project to seismic and soil hazards would be subject to confirmation and detailed characterization through the completion of geotechnical investigations required prior to the development of each site. As is the case with the Utica Avenue Solar Project, it is expected that the potential seismic and geologic hazards and any adverse soil conditions at the cumulative project sites would be mitigated through building code requirements and design recommendations of geotechnical engineers for each project. The specified soil engineering measures would be expected to mitigate or avoid all potentially hazardous geologic and soils conditions to less-than-significant levels at each site. While constructing the facilities to meet the seismic design criteria of the California Building Code would not completely eliminate the potential for damage during a major earthquake, it would reduce the potential impacts to public safety and property to less-than-significant levels at each of the cumulative projects. Given also the unlikelihood of soils hazards extending beyond the boundaries of individual project sites, the cumulative geologic and soils impacts would be less than significant. Therefore, any incremental hazards remaining at each cumulative site after mitigation *would not result in a cumulatively significant impact*, and the *project contribution would not be considerable*.

With respect to paleontological resources, there is a high probability that previously undiscovered paleontological resources may be present at the Utica Avenue Solar Project site, while the

paleontological sensitivity at the other cumulative sites ranges from low to high depending on the age of the surficial material at each site. In the event that buried paleontological resources are encountered during grading or excavation, all of the cumulative projects would be subject to mitigation measures similar to those identified for the Utica Avenue Solar Project in MM GEO-1 in Section 4.7. *Geology and Soils*. The implementation of these measures at each cumulative site would ensure that site-specific impacts to paleontological resources would be reduced to less-than-significant levels at each cumulative site. The collective incremental effects after mitigation would result in a *less-than-significant cumulative impact* to paleontological resources, and the project *contribution would not be considerable*.

Greenhouse Gas Emissions

As discussed in Section 4.8. *Greenhouse Gas Emissions*, the project's solar generating facilities would comprise a renewable source of energy which will help displace an equivalent amount of existing fossil-based generation. The construction and operation of the Utica Avenue Solar Project would generate some greenhouse gas emissions from fossil-fueled vehicles and equipment; however, these emissions would not exceed any adopted screening thresholds for significance and therefore would not be significant at the project-specific level. Based on review of environmental documents for the other cumulative projects, the GHG emissions impacts from the individual cumulative projects would likewise not be significant. Cumulatively, the GHG emissions from the approved and pending solar projects would be more than offset by the avoided greenhouse gas emissions resulting from the renewable electricity they would generate. Since the cumulative projects would facilitate the avoidance of substantial existing fossil-fueled power generation, they would individually and collectively result in a substantial net reduction in overall GHG emissions. Therefore, the *cumulative impact would not be adverse*.

It is noted that the environmental document for the Jackson Ranch Specific Plan concluded that the buildout of the specific plan would result in a significant and unavoidable impact in terms of greenhouse gas emissions, and that the project would result in a cumulatively considerable contribution to climate change. The Utica Avenue Solar Project would result in negligible emissions of greenhouse gases, and would have a net beneficial impact in terms of climate change. Therefore, the contribution of the Utica Avenue Solar Project in terms of greenhouse gas emissions and climate change would *not be cumulatively considerable* and the impact of the project would *not be cumulatively significant*.

Hazards and Hazardous Materials

Each of the cumulative sites, including the Utica Avenue Solar Project site, would be subject to similar hazards, including potential discharges of hazardous materials during project construction and operation, and potential hazards from existing environmental conditions that may be present from past activities at the sites. In general, most potential hazards would be highly localized and not likely to extend beyond individual project sites. Each cumulative project would be required to implement an approved Hazardous Materials Business Plan (HMBP) to address potential hazardous events during project operations, and also would be required to comply with all federal, state, and local laws and regulations regarding transport, handling, storage, and use of hazardous materials. Each cumulative project would also be required to identify potentially hazardous environmental conditions associated with historical uses of their respective sites through the preparation of Environmental Site Assessments, and each project proponent would be required by law to

remediate or remove any identified contaminant sources from their site. The implementation of required plans and protocols relative to potential hazards and hazardous materials would reduce the associated impacts to less than significant levels at each project site. As discussed above, the impacts from hazards and hazardous materials would generally be confined to each project site and would not be given to accumulation with similar effects from other projects in the vicinity. Therefore, any incremental effects from the Utica Avenue Solar Project and other cumulative projects relative to hazards and hazardous materials *would not result in a cumulatively significant impact, and the project contribution would not be considerable.*

Hydrology and Water Quality

This discussion covers potential cumulative drainage and flooding impacts, water quality impacts, and groundwater supplies.

With respect to stormwater drainage, the Utica Avenue Solar Project and the other cumulative projects have similar natural conditions like relatively flat topography, semi-arid climate, and lack of natural drainage courses nearby. In addition, the cumulative solar projects would all maintain over 90 percent of their sites in permeable soil with vegetated cover. Thus the relatively small amount rainfall received at each site would tend to percolate into the ground, and would not tend to leave the site or result in off-site drainage impacts. Even under major storm conditions, any off-site runoff would likely be captured by one of the many irrigation canals or agricultural drainage ditches in the area. At the Jackson Ranch, the project includes storm drainage system which would retain runoff flows such that surface runoff from the site would not exceed pre-project levels. Thus even where cumulative projects are located in proximity to each other, there is virtually no potential for runoff from several sites to combine to result in downstream drainage impacts. Therefore, the potential *cumulative stormwater drainage impacts would be less than significant, and the project contribution would not be considerable.*

With respect to water quality, during the construction of each cumulative project, including the Utica Avenue Solar Project, there is a potential for erosion of exposed soils and spills of hazardous materials that could have an adverse impact on surface water quality. However, each cumulative project would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which would specify measures to prevent and control erosion and discharges of hazardous materials. These control measures would reduce the potential water quality impacts at each cumulative site to less-than-significant levels. As discussed above, the natural and built conditions at each project site would virtually eliminate the potential for stormwater runoff to leave the site. Therefore, the potential for polluted surface water to be mobilized and leave each site is also small, and the potential for polluted surface water from several sites to result in a collective water quality impact to downstream water bodies is negligible. Therefore, the *cumulative impacts to water quality would be less than significant, and the project contribution would not be considerable.*

With respect to flooding and inundation, neither the Utica Avenue Solar Project site nor the other cumulative project sites in the vicinity of the project site are subject to flooding during a 100-year storm event, or to inundation in the event of upstream dam failure. While some cumulative projects located near the Kings River and east of the river may be subject to flooding and inundation, these projects would be required by the County to incorporate drainage control and flood protection measures to mitigate any potential impacts within the project sites and adjacent properties. As such, any cumulative flooding impacts would be reduced to less-than-significant

levels with drainage and flood mitigations incorporated into the design and construction of the affected projects. Since the proposed project site is not subject to flooding or inundation, the project would *make no contribution* to any cumulative flooding impact, and thus this impact would be cumulatively less than significant with respect to the Utica Avenue Solar Project.

With respect to groundwater supplies, each cumulative project, including the Utica Avenue Solar Project, would require water during construction and operation. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. For most cumulative solar projects, construction water would be supplied by existing agricultural wells or new wells. It is estimated that construction water demand for each project would be about 0.2 acre-feet per acre. (Thus, for a project with a one-year construction schedule, water demand would equal 0.2 afy per acre; a project with a two-year construction schedule would have an average water demand of 0.1 afy per acre.) The majority of the cumulative solar projects are located within the Westlands Water District which has established a long-term groundwater extraction limit of 0.6 afy per acre which is equivalent to the estimated sustainable yield of the groundwater subbasin. Therefore, even if the other cumulative projects in the vicinity were constructed concurrently with the Utica Avenue Solar Project, the collective groundwater pumping rate would not exceed the sustainable yield of the groundwater basin. The operational water supplies for each solar project would mainly be used for panel washing. As discussed in Section 4.10. *Hydrology and Water Quality*, operational water demands for the Utica Avenue Solar Project are estimated to be approximately 0.018 afy per acre. Even if it is assumed that the cumulative projects in the project's groundwater basin, including the Utica Avenue Solar Project, would rely solely on groundwater for operational needs, the collective water demands would be substantially below the sustainable yield of 0.6 acre-feet per acre. Therefore, the cumulative projects located within the Westlands Water District would not deplete groundwater supplies.

The Jackson Ranch project will obtain its water supplies from the Kettleman City Community Services District (KCCSD), which utilizes imported surface water from the State Water Project to serve its customers (Kings County 2020). As such, the Jackson Ranch project would not rely on groundwater for water supply, and thus would no impact in terms of depleting groundwater resources, and would not contribute to any cumulative depletion of groundwater resources.

The Utica Avenue Solar Project does not have access to groundwater or surface water sources at the project site, and thus water for construction and operation of the project will be obtained from off-site sources and hauled to the site. Under California Water Code Section 10910(i), "hauled water is not considered a source of water" and therefore the source of that water is not required to be identified in a CEQA document. It is expected that the relatively small volume of water required for project construction would be available for purchase and hauling to the project site under normal, dry, and multiple dry year conditions, and that this very small water demand would have a negligible effect on groundwater resources. Therefore the project would not have a cumulatively considerable impact on groundwater resources, and the project's *cumulative impact would be less than significant*.

With regard to groundwater recharge, all of the cumulative solar projects, including the Utica Avenue Solar Project, would retain 90 percent or more of their site areas in permeable vegetated cover, such that the solar projects would not interfere with groundwater recharge, individually or collectively. The Jackson Ranch project would retain approximately 50 percent of the project site in pervious agricultural land, with stormwater collected from the remaining developed area to be

retained in on-site retention basins for percolation into the soil (Kings County 2020). Therefore, the cumulative projects, including the Utica Avenue Solar Project, would each result in a less-than-significant impact with regard to interference with groundwater recharge, and the collective impact would be *cumulatively less-than-significant*.

In summary, the *cumulative impact to groundwater supplies would be less than significant*, and the *project contribution would not be considerable*.

Land Use and Planning

As discussed in Section 4.11. *Land Use and Planning*, the Utica Avenue Solar Project would not physically divide an established community, and would not result in significant land use impacts to surrounding properties. Similarly, none of the cumulative projects would divide existing communities, and all of the cumulative projects would result in less-than-significant land use impacts upon surrounding properties. The cumulative incremental land use impacts resulting from the collective construction and operation of the *cumulative projects would be less than significant*, and the *project contribution would not be considerable*.

The General Plan land use designations applicable to all of the cumulative solar projects include solar generating facilities as allowed uses. All of the cumulative solar projects, including the Utica Avenue Solar Project, are located either in agricultural zoning districts that permit solar generating facilities, or in commercial zoning districts that permit solar projects. All of the cumulative solar projects meet the required County Development Code requirements for conditional use permits for solar facilities. The development of the only non-solar project, Jackson Ranch, would conform to the land uses and development standards of the approved Jackson Ranch Specific Plan and therefore would also be consistent with its applicable land use plans and regulations. Therefore, none of the cumulative projects would conflict with applicable land use plans, policies, and regulations. As such, there would be *no cumulative impact in terms of land use plans, policies, and regulations*, and the project would make *no contribution* to such a cumulative impact.

Mineral Resources

None of the cumulative projects, including the Utica Avenue Solar Project site, have oil or gas wells on their sites, or are located within active oil and gas fields. Therefore, the cumulative projects would not result in the loss of availability of oil and gas resources which may be present beneath the cumulative sites.

None of the cumulative projects, including the Utica Avenue Solar Project, would result in the loss of availability of other known mineral resources, such as aggregate deposits. Additionally, the cumulative projects would not result in the loss of availability of a locally important mineral resource delineated on a local land use plan.

In summary, there would be *no cumulative impact to mineral resources*, and the project would make *no contribution* to such a cumulative impact.

Noise

As discussed in Section 4.13. *Noise*, the nearest sensitive noise receptor to the Utica Avenue Solar Project site is a single rural dwelling located 0.5 mile the northwest of the project site. At this distance, the maximum construction noise generated at the project site would be below the applicable County noise standards. Traffic generated during project construction would result in slight increase in ambient noise levels along the affected roadways, but the increased noise levels would not exceed the County's applicable noise standards at the locations of any sensitive receptors. Noise levels generated by operational traffic would be lower.

In evaluating cumulative noise impacts, only those projects in the immediate project vicinity are considered because noise levels drop off rapidly from the source. In the project vicinity, the only cumulative project is the Jackson Ranch Specific Plan project, located 2.5 miles west, which has been approved but not yet constructed. Depending on construction schedules, the construction of the Utica Avenue Solar Project could overlap with the construction of Jackson Ranch project. The nearest residential receptor that could be affected by construction at both sites is the rural dwelling located 0.5 mile northwest of the Utica Avenue Solar Project site, which is 2.0 miles east of the Jackson Ranch project site. Since noise levels drop off rapidly from the source, the construction noise from the Jackson Ranch project would be greatly reduced by the time it combined with noise generated by the Utica Avenue Solar Project at this common off-site receptor. The maximum cumulative noise level increase at this receptor location from both projects would be less than 1 dBA, at a combined noise level of approximately 51 to 53 dBA, which is well below the County's applicable noise thresholds. This noise level increase would also be less than the generally accepted threshold of human hearing which generally unable to perceive noise increases of less than 3 dBA. Therefore, the incremental noise impacts from the combined construction of the Utica Avenue Solar Project and other *cumulative projects would be less than significant*, and the project *contribution would not be considerable*.

Regarding noise from construction traffic, the only sensitive receptor to traffic noise is the rural dwelling located 0.5 mile from the Utica Avenue Solar Project. Since this dwelling is located 780 feet from Utica Avenue, the ambient noise level from roadway traffic at this residence is a relatively low 42 dBA. The temporary addition of project construction traffic would result in a noise level increase of 1 dBA which would not be significant. None of the other cumulative projects would generate construction or operational traffic to Utica Avenue east of Interstate 5. The construction of the Jackson Ranch project would add traffic to Interstate 5 and Utica Avenue west of the freeway, the resulting noise level increase would not be perceptible over the ambient freeway noise across the 2 mile distance to the nearest common noise receptor. Thus the cumulative noise impact due to traffic noise would be less than significant. Therefore, the incremental traffic noise impacts from the combined construction the Utica Avenue Solar Project and other *cumulative projects would be less than significant*, and the project *contribution would not be considerable*.

During project operations, both on-site activity and related traffic would be very light and would not generate noise levels that would be audible at any receptor locations. Therefore, the incremental noise impacts from the combined operation of the Utica Avenue Solar Project and other *cumulative projects would be less than significant*, and the project *contribution would not be considerable*.

Construction activities at the cumulative projects would result in ground vibration, although such vibration would not be detectable beyond the project boundaries of each project site. Therefore, the cumulative projects would result in *no cumulative vibration impacts*, and the Utica Avenue Solar Project would make *no contribution* to such a cumulative effect.

Population and Housing

None of the cumulative solar projects, including the Utica Avenue Solar Project, would include a residential component so they would not directly induce population growth in the area. The construction and operational workers for the cumulative solar projects are expected to be drawn from the existing labor pool in the region, and thus the cumulative solar projects would not indirectly result in population growth. The only non-solar project, Jackson Ranch, is expected to generate 1,530 new commercial jobs. However, to the extent that the resulting inducement of population and housing growth occurs in Kings County, these increases are within the estimated growth in population and housing for Kings County, and therefore would not result in an adverse impact (Kings County 2020, pp. 68-69).

Additionally, none of the cumulative solar projects would result in the extension of roads or utilities to lands not currently served by urban infrastructure, and thus would not induce unplanned urban development into the rural areas of the County. The Jackson Ranch project would include new roadways and utilities infrastructure, and these improvements would be constructed in accordance with the approved Jackson Ranch Specific Plan. Therefore, the cumulative projects would result in *a less-than-significant cumulative impact* in terms of inducement of population growth in the area, and the cumulative contribution of the project would *not be cumulatively considerable*.

None of the cumulative projects currently include housing on their sites. Therefore, the cumulative projects would result in *no cumulative impacts* with respect to displacement of housing or population, and the project would make *no contribution* to such a cumulative effect.

Public Services

Fire protection services for all cumulative projects, including the Utica Avenue Solar Project, would be provided by the Kings County Fire Department. The potential demand for Fire Department services is expected to be very low for each cumulative solar project site and moderately low at the Jackson Ranch project. Thus the collective demand for Fire Department services is expected to be low, and would not cumulatively result in the need for new or expanded facilities. Therefore, the *cumulative impact to fire services would be less than significant*, and the project *contribution would not be considerable*.

Police projection services for all cumulative projects, including the Utica Avenue Solar Project, would be provided by the Kings County Sheriff's Office. The potential demand for Sheriff's Office services is expected to be very low for each cumulative solar project and moderately low for the Jackson Ranch project. Thus the collective demand for Sheriff's Office services is also expected to be low, and would not cumulatively result in the need for new or expanded facilities. Therefore, the *cumulative impact to Sheriff's services would be less than significant*, and the *project contribution would not be considerable*.

There would be little or no demand for other County services from the project, or from any of the other cumulative projects, and would not cumulatively result in the need for new or expanded facilities. Therefore, the *cumulative impact to other County services would be less than significant*, and the project *contribution would not be considerable*.

Recreation

Since neither the Utica Avenue Solar Project nor any of the other cumulative projects would include housing at their sites, they would not result in increased use of existing recreational facilities. Neither the project nor any of the other cumulative projects would include recreational facilities in their projects, so there would be no adverse physical effects resulting from such facilities. As such, there would be *no cumulative impact associated with recreational facilities*, and the project would make *no contribution* to such an impact.

Transportation

As discussed in Section 4.17. *Transportation*, the highest rate of traffic generation from the Utica Avenue Solar Project would occur during the peak period of construction activity. As discussed, the traffic volumes generated during the peak construction period for the project would have a less-than-significant impact on the performance of affected roadways. The affected roadway segments have substantial unutilized traffic capacity, and operate well within acceptable service levels. During the peak construction period, the roadway segment that would be most affected by cumulative traffic (i.e., Utica Avenue near the project entrance) would be subject to 22 percent increase in daily traffic west of the project entrance, and a 2 percent increase in daily traffic volumes east of the project entrance, due to project construction traffic. Due to the very low existing traffic volumes on Utica Avenue, the service level would remain at acceptable LOS B on this roadway during the peak construction period. Other roadways in the vicinity would be subject to temporary increases of 0.4 to 12.8 percent in overall traffic volumes. These increases in traffic volume would only occur during the period of peak construction for the Utica Avenue Solar Project. The project construction traffic would not result in a temporary change in Level of Service or a degradation of LOS to unacceptable levels on any affected roadway segment. Therefore, the project would not conflict with a program, plan, ordinance or policy addressing the circulation system, and the impact would be less than significant.

Among the other approved and pending projects, only the Jackson Ranch project has the potential to generate additional traffic on roadway segments that would also be subject to construction traffic from the Utica Avenue Solar Project. However, the Jackson Ranch project would generate its highest traffic volumes after the commercial center is fully occupied and operating. Since construction on the center has not yet begun, it is unlikely that peak construction traffic from the Utica Avenue Solar Project, which is planned to occur in Fall 2022, would coincide with peak operational traffic from the Jackson Ranch project. At most, the Jackson Ranch project may generate construction traffic in Fall 2022. Although the Jackson Ranch EIR did not address construction traffic, it is expected to be far lower than operational traffic. The only roadway segments which would be substantially affected by both projects are the segments of Utica Avenue located east of Interstate 5, and the segment between the northbound and southbound ramps at Interstate 5. Under buildout conditions of the Jackson Ranch in 2040, these roadway segments are calculated to operate at LOS B and C, respectively (Kings County, 2020, p. 5.11-22). This represents

hypothetical worst-case scenario, which would not occur. With Utica Avenue Solar Project construction traffic added to these roadway segments without the Jackson Ranch project, which is the most likely scenario, the actual service levels would be the same or better during the time of project construction. Since LOS B and C represent acceptable service levels, it is concluded that the cumulative LOS impact on the affected roadway segments would be *less than significant* and that the project contribution would *not be cumulatively considerable*.

With regard to Vehicle Miles Traveled, the average daily VMT generated by the Utica Avenue Solar Project during the 3-month construction period would be equivalent to approximately 0.15 percent of the average daily VMT in Kings County. (However, it is noted that a portion of project VMT would occur outside of Kings County.) This small and temporary increase in Countywide VMT would not represent a significant impact. Other cumulative solar projects would contribute similarly small increases in average daily VMT in Kings County. Since the construction schedules of the cumulative projects would tend not to overlap, the maximum increase in cumulative VMT may reach the equivalent of 1.6 percent of the daily average Countywide VMT if two large solar projects (e.g., 250 MW each) were constructed concurrently. Even under these conditions, the small and temporary increase in Countywide VMT would not represent a cumulatively significant impact. During the operational phases of the cumulative solar projects, even the largest projects would generate far less than 110 daily trip screening threshold recommended by the Office of Planning and Research (OPR) for determining the significance of a VMT impact. Therefore, the cumulative VMT impact would be *less than significant* and the project contribution of *would not be considerable*.

With respect to traffic safety hazards, there is a potential for creation of hazardous driving conditions during the construction periods for the cumulative projects, including the Utica Avenue Solar Project. Large slow moving trucks could result in temporary congestion near the project entrance, and could pose a safety concern due to abrupt changes in the speed of traffic flow, or due to slow turning movements across on-coming lanes of traffic. To minimize potential traffic safety hazards, all of the cumulative projects, including the Utica Avenue Solar Project, would implement traffic control measures similar to those identified in MM TR-1 in Section 4.17 of this IS/MND for the Utica Avenue Solar Project. These measures would reduce the potential traffic safety impacts at each cumulative project site to less-than-significant levels. The remaining incremental traffic safety effects resulting from collective truck traffic at the cumulative projects would be *less than significant cumulatively*, and the project contribution would *not be considerable*.

Tribal Cultural Resources

The probability that any previously undiscovered tribal cultural resources are present at any of the cumulative project sites is low. However, in the event that buried tribal cultural resources are encountered during grading or excavation, each of the cumulative projects would be subject to mitigation measures similar to those identified for the Utica Avenue Solar Project in MM CR-1 and MM CR-2 in Section 4.5. *Cultural Resources*. The implementation of these measures at each cumulative site would ensure that site-specific impacts to tribal cultural resources would be reduced to less-than-significant levels at each cumulative site. The collective incremental effects after mitigation would result in a *less-than-significant cumulative impact to tribal cultural resources*, and the project contribution would *not be considerable*.

Utilities and Service Systems

With respect to water supply, each cumulative solar project would require water during construction and operation. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. For most cumulative solar projects, construction water would be supplied by existing agricultural wells or new wells. It is estimated that construction water demand for each project would be about 0.2 acre-feet per acre. The majority of the cumulative solar projects are located within the Westlands Water District which has established a long-term groundwater extraction limit of 0.6 afy per acre which is equivalent to the estimated sustainable yield of the Westside groundwater subbasin (DWR 2020a). Therefore, even if the other cumulative projects were constructed concurrently with the Utica Avenue Solar Project, the collective groundwater pumping rate would not exceed the sustainable yield of the groundwater basin.

The operational water supplies for each solar project would mainly be used for panel washing. As discussed in in Section 4.10. *Hydrology and Water Quality*, operational water demands for typical solar PV facilities are estimated to be approximately 0.01 afy per acre. Even if it is assumed that the cumulative projects in the Westside groundwater basin would rely solely on groundwater for operational needs, the collective water demands would be substantially below the sustainable yield of 0.6 acre-feet per acre. Therefore, the collective water demands from operation of cumulative solar projects located within the Westside groundwater subbasin would not exceed the sustainable yield of the basin.

The Jackson Ranch project will obtain its water supplies from the Kettleman City Community Services District (KCCSD), which utilizes imported surface water from the State Water Project to serve its customers. The KCCSD has sufficient water supply allocation to meet the annual water supply demands of its existing customers and buildout of the Jackson Ranch. The conveyance of domestic water supply from KCCSD's water treatment plant to the Jackson Ranch project will involve the construction of a 4-mile long water pipeline. The potential impacts associated with this pipeline are fully addressed in the Jackson Ranch Specific Plan EIR, which identified mitigation measures to reduce the potential impacts of the pipeline to less-than significant levels (Kings County 2020). The Jackson Ranch project will not require the construction of additional water supply infrastructure which has not been fully analyzed in the Specific Plan EIR.

The Utica Avenue Solar Project does not have access to groundwater or surface water sources at the project site, and thus water for construction and operation of the project will be obtained from off-site sources and hauled to the site. Under California Water Code Section 10910(i), "hauled water is not considered a source of water" and therefore the source of that water is not required to be identified in a CEQA document. It is expected that the relatively small volume of water required for project construction would be available for purchase and hauling to the project site and would not require the construction of new or expanded water facilities. Therefore, the cumulative impact in terms of necessitating new or expanded facilities for water supply would be *less than significant*, and the project *contribution would not be considerable*.

With respect to wastewater treatment, the Utica Avenue Solar Project would not include an O&M facility with septic and leachfield systems for on-site disposal and treatment of domestic wastewater. Instead the facility would have portable chemical toilets which would be serviced by an

outside contractor. As such, the Utica Avenue Solar Project would have no impact in terms of necessitating the construction of new or expanded wastewater treatment facilities. As such, in terms of impacts from new or expanded wastewater facilities, the project would *make no contribution* and there would be *no cumulative impact* associated with the project.

With respect to stormwater drainage, neither the Utica Avenue Solar Project nor any of the cumulative solar projects would include the construction or expansion of stormwater drainage facilities. At each solar project, over 90 percent of project site area would be retained in pervious vegetative cover, the ability of each site to absorb and percolate rainwater through the surface soil would not be substantially altered with the addition of the solar facilities. Given also the flat topography and semi-arid conditions at the cumulative sites, the increase in the volume and velocity of stormwater runoff due to the projects would be negligible, so there would be no need to construct storm drainage systems for the solar projects. The only non-solar project, Jackson Ranch, would include a storm drainage system which would be designed to control runoff to design levels. The Jackson Ranch project would not require additional storm water facilities which have not already been fully evaluated in the Specific Plan EIR (Kings County 2020). Therefore, *no cumulative impacts would result from the construction or expansion of storm drainage systems*, and the project would make *no contribution* to such impacts.

The total solid waste that would be generated and landfilled by the Utica Avenue Solar Project during construction and the operational life of the project would be approximately 64.8 cubic yards (compacted) or 62.4 tons. It is estimated that the total tonnage of solid waste disposed of by all of the cumulative solar projects listed in Table MFS-1 would be 55,286 tons over 25 years. The Jackson Ranch project would generate an additional 28,379 tons of solid waste to be landfilled over the same period (Kings County 2000, p. 5.13-26). Thus the total cumulative volume of solid waste to be landfilled would be approximately 83,665 tons. This would represent about 0.19 percent of the total combined remaining landfill capacity of approximately 44.0 million cy at the Chemical Waste Management Landfill and Avenal Regional Landfill, or the equivalent of 76 days of solid waste disposal at the current combined daily disposal rate of 1,100 tons at the two landfills. Thus the total landfilled solid waste generated by the cumulative projects over their lifetimes would shorten the combined remaining life of the landfills by about 76 days. During project construction when solid waste generation would be greatest, the Utica Avenue Solar Project would generate 22.08 tons of solid waste per workday. Assuming that all of the cumulative projects were constructed at the same time, the combined volume of solid waste disposed at the landfills would be about 234 tons per day. Thus, even under this very conservative scenario, the cumulative daily solid waste generation would remain well below the combined 8,000 ton per day permitted disposal limit at the two landfills. Thus the cumulative impact on solid waste disposal and landfill capacity would be less than significant, and the project *contribution would not be cumulatively considerable*.

Wildfire

With respect to wildfire, neither the Utica Avenue Solar Project site, nor any of the cumulative project sites is located in or near State responsibility areas or on lands classified as very high fire hazard severity zones. As such, the Utica Avenue Solar Project and other approved and pending projects *would have no cumulative impact under this criterion*, and the contribution of the Utica Avenue Solar Project would *not be cumulatively considerable*.

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 Incorporated. The ways in which people can be subject to substantial adverse effects from projects include: potential exposure to significant levels of local air pollutants; potential exposure to seismic and flooding hazards; potential exposure to contamination from hazardous materials; potential exposure to traffic hazards; potential exposure to excessive noise levels; and potential exposure to wildfire. The risks from most of these potential hazards would be avoided or reduced to less-than-significant levels through compliance with existing laws, regulations, or requirements that are intended to protect human health and safety. In other instances, the potential project impacts to humans would not occur (e.g., wildfire), or would be avoided or reduced to less-than-significant levels through mitigation measures identified in this document. With the implementation of these measures to address potential impacts, it is expected that the Utica Avenue Solar Project would not have the potential to result in significant effects which will cause substantial adverse effects on human beings, either directly or indirectly.

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APPENDIX A

Air Quality Report

Prepared by

Illingworth & Rodkin

March 2022

UTICA AVENUE SOLAR PROJECT AIR QUALITY ASSESSMENT

Kings County, California

March 7, 2022

Prepared for:

**Bert Verrips
11942 Red Hill Avenue
Santa Ana, CA 92705**

Prepared by:

James A. Reyff

ILLINGWORTH & RODKIN, INC.
/// Acoustics • Air Quality ///

**429 E. Cotati Avenue
Cotati, CA 94931
(707) 794-0400**

I&R Project: 22-016

INTRODUCTION

This report assesses the air quality impacts associated with the Utica Avenue Solar Project proposed in Kings County, California. The Project will occupy an approximately 25-acre site generally located on the south side of Utica Avenue in southern Kings County, approximately 2.8 miles east of Interstate 5 at the intersection of the unimproved 22st Avenue alignment, as shown in Figure 1. The project's potential impacts on air quality during construction and operation are assessed in this report. Development projects of this type in the San Joaquin Valley are most likely to cause air quality impacts from emissions generated during construction. There are minor emissions produced from the few workers that visit the site intermittently for maintenance. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has published the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) that was used to conduct this air quality analysis.¹ This report describes existing air quality conditions, construction period air quality impacts, operational air quality impacts (at both a local and regional scale) and identifies mitigation measures necessary to reduce or eliminate air quality impacts identified as significant.

PROJECT DESCRIPTION

The Utica Avenue Solar Project is a planned utility-scale solar PV facility with a generating capacity of 3 Megawatts (MW). The Utica Avenue Solar project will be constructed on an approximately 25-acre site located on the south side of Utica Avenue in southern Kings County, approximately 2.8 miles east of Interstate 5 at the intersection of the unimproved 22st Avenue alignment. The solar facility will consist of arrays of solar modules mounted on horizontal trackers, along with associated inverters which will convert the DC generation to AC current. The project would include a single 3 MW transformer which would step up the generation voltage to 12-kV distribution voltage to be conveyed to the existing PG&E power distribution line running along the south side of Utica Avenue. The project will also include 3 MW of battery storage. An approximately 450-foot long gen-tie line would convey the solar generation from the on-site project switchgear to the Point of Interconnection (POI) with the PG&E system at an existing power pole on the south side of Utica Avenue approximately 160 feet west of the project site. The Utica Solar Facility is planned to be constructed over a three month period in late 2022. The first full year of facility operation is expected to be 2024.

¹ SJVAPCD. 2015. Guide for Assessing and Mitigating Air Quality Impacts. March.

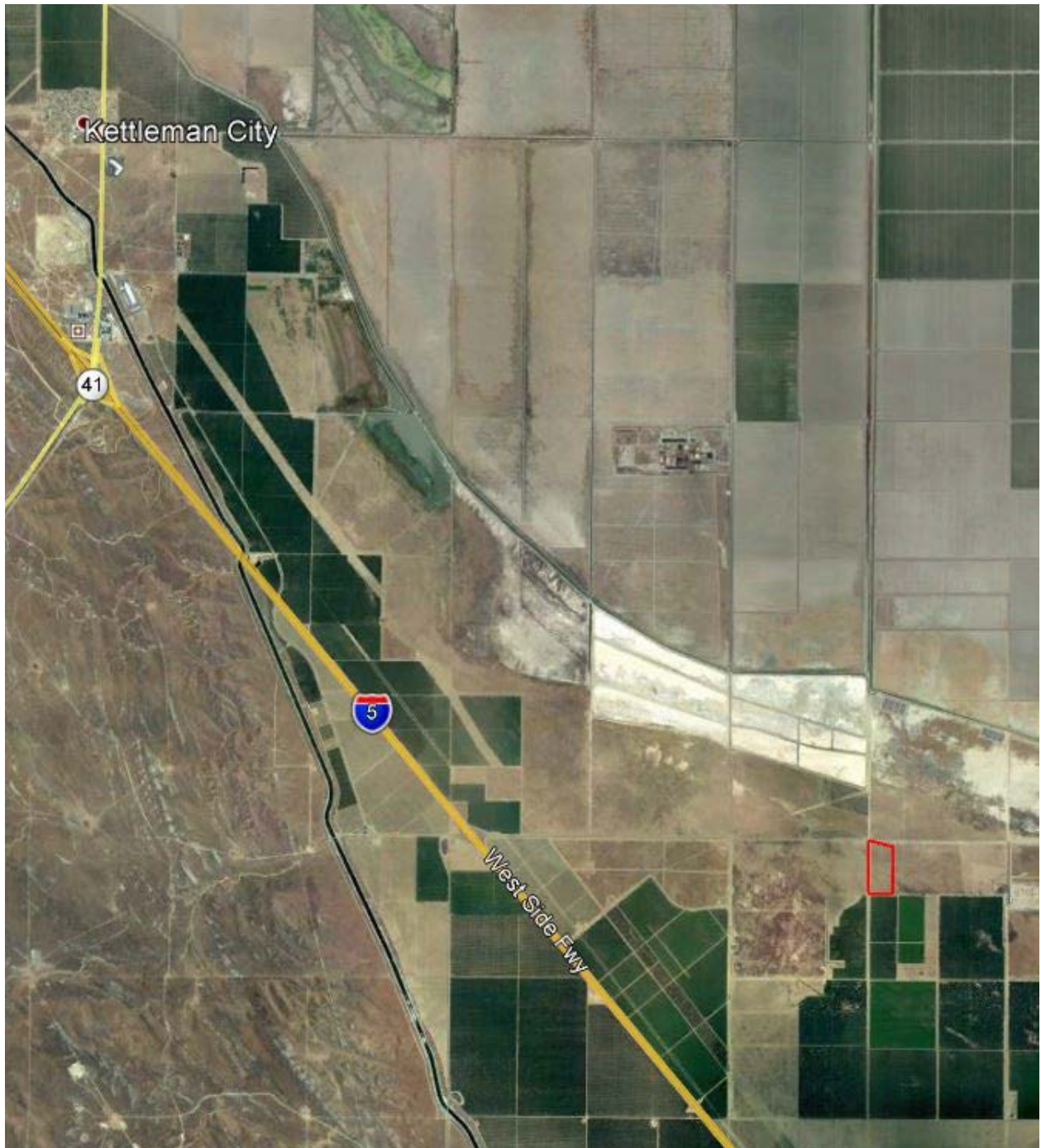


Figure 1. Utica Avenue Solar Project Location

SETTING

TOPOGRAPHIC CONSIDERATIONS

The project site is located in Kings and Fresno Counties in the south-western portion of the San Joaquin Valley Air Basin. The California Air Resources Board (CARB) defines the boundaries of the basin by the San Joaquin Valley within the Sierra Nevada Mountains to the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the ocean at the Carquinez Strait where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley, thus, could be considered a “bowl” with the primary opening to the north. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of air pollutants from the basin. Wind flow is usually down the valley from the north, but the Tehachapi Mountains block or restrict the southward progression of airflow. The Sierra Nevada is a substantial barrier from the usual winds that have a general westerly flow. The topographical features result in weak airflow. The flow is further restricted vertically by inversion layers that are common in the San Joaquin Valley air basin throughout the year. An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below. During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 1,500 to 3,000 feet above the valley floor. Airflow is considerably restricted since mountain ranges surrounding the valley are generally above the inversion. These inversions lead to a buildup of ozone and ozone precursor pollutants. During the fall and winter months, strong surface-based inversions occur from 500 to 1,000 feet above the valley floor (SJVAPCD 1998). Wintertime inversions trap very stable air near the surface and lead primarily to a buildup of particulate matter air pollutants. Very light winds are also characteristic with these wintertime surface-based inversions.

AIR BASIN CHARACTERISTICS

The climate of the project area is characterized by hot dry summers and cool, mild winters. Clear days are common from spring through fall. Daytime temperatures in the summer often approach or exceed 100 degrees, with lows in the 60s. In the winter, daytime temperatures are usually in the 50s, with lows around 35 degrees. Radiation fog is common in the winter and may persist for days. Partly to mostly cloudy days are common in winter, as most precipitation received in the Valley falls from November through April.

Winds are predominantly up-valley (flowing from the north) in all seasons, but more so in the summer and spring months (CARB 1984). In this flow, winds are usually from the north end of the Valley and flow in a south-southeasterly direction, through Tehachapi Pass, into the Southeast Desert Air Basin. Annually, up-valley wind flow (i.e., northwest flow with marine air) is most common, occurring about 40 percent of the time. This type of flow is usually trapped below marine and subsidence inversions, restricting outflow through the Sierra Nevada and Tehachapi Mountains. The occurrence of this wind flow is almost 70 percent of the time in summer, but less than 20 percent of the time in winter. Winter and fall are characterized by mostly light and variable wind flow. Pacific storm systems do bring southerly flows to the valley during late fall and winter. Light and variable winds, less than 10 miles per hour (mph), are common in the colder months.

Superimposed on this seasonal regime is the diurnal wind cycle. In the Valley, this cycle takes the form of a combination of a modified sea breeze-land breeze and mountain-valley regimes. The sea breeze-land breeze regime typically has a modified sea breeze flowing into the Valley from the north during the late day and evening and then a land breeze flowing out of the Valley late at night and early in the morning. The mountain-valley regime has an upslope (mountain) flow during the day and a down slope (valley) flow at night. These effects create a complexity of regional wind flow and pollutant transport within the Valley.

The pollution potential of the San Joaquin Valley is very high. The San Joaquin Valley has one of the most severe air pollution problems in the State and the Country. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in late spring, summer, and early fall are ideal conditions for the formation of ozone, where the Valley frequently experiences unhealthy air pollution days. Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high respirable particulate matter (PM₁₀) concentrations and elevated carbon monoxide (CO) levels.

REGULATORY SETTING

The Federal and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants now include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), respirable particulate matter with a diameter less than 10 microns (PM₁₀), sulfur dioxide (SO₂), and lead (Pb). In 1997, The Environmental Protection Agency (EPA) added fine particulate matter (PM_{2.5}) as a criteria pollutant. The air pollutants for which standards have been established are considered the most prevalent air pollutants that are known to be hazardous to human health. California ambient air quality standards (CAAQS) include the NAAQS pollutants and also hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. These additional CAAQS pollutants tend to have unique sources and are not typically examined in environmental air quality assessments. In addition, lead concentrations have decreased dramatically since it was removed from motor vehicle fuels.

Federal Regulations

At the federal level, the United States Environmental Protection Agency (US EPA) administers and enforces air quality regulations. Federal air quality regulations were developed primarily from implementation of the Federal Clean Air Act. If an area does not meet NAAQS over a set period (three years), EPA designates it as a "nonattainment" area for that particular pollutant. EPA requires states that have areas that do not comply with the national standards to prepare and submit air quality plans showing how the standards would be met. If the states cannot show how the standards would be met, then they must show progress toward meeting the standards. These plans are referred to as the State Implementation Plan (SIP). Under severe cases, EPA may impose a federal plan to make progress in meeting the federal standards.

EPA also has programs for identifying and regulating hazardous air pollutants. The Clean Air Act

requires EPA to set standards for these pollutants and sharply reduce emissions of controlled chemicals. Industries were classified as major sources if they emitted certain amounts of hazardous air pollutants. The US EPA also sets standards to control emissions of hazardous air pollutants through mobile source control programs. These include programs that reformulated gasoline, national low emissions vehicle standards, Tier 2 motor vehicle emission standards, gasoline sulfur control requirements, and heavy-duty engine standards.

The San Joaquin Valley Air Basin is subject to major air quality planning programs required by the federal Clean Air Act (CAA) (1977, last amended in 1990, 42 United States Code [USC] 7401 *et seq.*) to address ozone, particulate matter air pollution, and carbon monoxide. The CAA requires that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards within the deadlines specified in the Clean Air Act. These plans are submitted to the State, which after approval, submits them to US EPA as the SIP.

State Regulations

The California Clean Air Act of 1988, amended in 1992, outlines a program for areas in the State to attain the CAAQS by the earliest practical date. CARB is the state air pollution control agency and is a part of the California EPA. The California Clean Air Act sets more stringent air quality standards for all of the pollutants covered under national standards, and additionally regulates levels of vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. If an area does not meet CAAQS, CARB designates the area as a nonattainment area. The San Joaquin Valley Air Basin does not meet the CAAQS for ozone, PM₁₀, and PM_{2.5}. CARB requires regions that do not meet CAAQS for ozone to submit clean air plans that describe plans to attain the standard or show progress toward attainment.

In addition to the US EPA, CARB further regulates the amount of air pollutants that can be emitted by new motor vehicles sold in California. Motor vehicle emissions standards have always been more stringent than federal standards since they were first imposed in 1961. CARB has also developed Inspection and Maintenance (I/M) and "Smog Check" programs with the California Bureau of Automotive Repair. Inspection programs for trucks and buses have also been implemented. CARB also sets standards for motor vehicle fuels sold in California.

San Joaquin Valley

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings Tulare and the San Joaquin Valley portion of Kern. The primary role of the SJVAPCD is to develop plans and implement control measures in the San Joaquin Valley to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. In March 2007, an Indirect Source Review (ISR) rule was adopted that controls air pollution from new land developments. SJVAPCD also conducts public education and outreach efforts such as the Spare the Air, Wood Burning, and Smoking Vehicle voluntary programs.

Kings County 2035 General Plan.

The Air Quality Element establishes goals, objectives, and policies to guide planning decisions and provides the platform for local action in addressing air quality and climate change issues.

Applicable goals, objectives, and policies presented in the General Plan are as follows:

C. Air Quality Management

AQ GOAL C1 Use Air Quality Assessment and Mitigation programs and resources of the SJVAPCD and other agencies to minimize air pollution, related public health effects, and potential climate change impacts within the County.

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.

The environmental assessment process required under the California Environmental Quality Act (CEQA) is by far the most important tool for local government to communicate with other agencies and the public on the air quality impacts of new development within a community. Strong and consistent application of CEQA requirements can make a significant difference in preventing or minimizing project level air quality impacts. In addition, the County can also offer its assistance to existing land uses to reduce their air pollution and greenhouse gas emissions.

AQ Policy C1.1.1: Assess and mitigate project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD.

AQ Policy C1.1.2: Assess and mitigate project greenhouse gas/climate change impacts using analysis methods and significance thresholds as defined or recommended by the SJVAPCD, KCAG or California Air Resources Board (ARB) depending on the type of project involved.

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 Policy C1.1.4 Identify and maintain an on-going inventory of the cumulative transportation, air quality, and climate change impacts of all general plan amendments approved during each year.

AQ Policy C1.1.5 Assess and reduce the air quality and potential climate change impacts of new development projects that may be insignificant by themselves but, taken together, may be cumulatively significant for the County as a whole.

AQ Policy C1.1.6 Encourage and support the development of innovative and effective

mitigation measures and programs to reduce air quality and climate change impacts through proactive coordination with the SJVAPCD, project applicants, and other knowledgeable and interested parties.

AQ Policy C1.1.7 Initiate through the Community Development Agency discussions with the SJVAPCD to develop a program and identify mitigation projects that would permit the expenditure of SJVAPCD Rule 9510 – Indirect Source Review air quality mitigation fees generated in Kings County on air quality projects in Kings County to maximize local benefits to air quality and the economy.

AQ Policy C1.1.8 Actively work with project sponsors to maximize their participation in Voluntary Emission Reduction Agreements (VERA) with the SJVAPCD that fulfill the requirements of CEQA and Rule 9510 and provide emission reductions at least as large as those required by Rule 9510. The VERA process provides an opportunity for the County to identify local air emission reduction projects and expand the County’s active participation in the project selection process.

E. Energy Efficiency and Conservation

AQ GOAL E1 Minimize air emissions and potential climate change impacts related to energy consumption in the County.

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

Natural gas burning appliances used for space heating, water heating, and cooking are a sizable source of NO_x and CO₂ emissions. Consumption of electricity also causes pollutant emissions from the operation of power plants fueled by fossil fuels. Reduction in local energy demand will also reduce overall energy demand, which decreases the expediency for new energy production plant construction. Local efforts to reduce energy consumption can save consumers money and improve air quality. Simple and cost-effective designs, technologies, and methods are available to achieve energy savings and reduce air pollutant emissions.

AQ Policy E1.1.1 Initiate and sustain ongoing efforts with local water and energy utilities and developers to establish and implement voluntary incentive based programs to encourage the use of energy efficient designs and equipment in new and existing development projects within the County.

AQ Policy E1.1.2 Initiate and sustain ongoing efforts with agriculture, the building industry, water and energy utilities and the SJVAPCD to promote enhanced energy conservation and sustainable building standards for new construction.

- AQ Policy E1.1.3 Work with local water and energy utilities and the building industry to develop or revise County design standards relating to solar orientation of building occupancies, water use, landscaping, reduction in impervious surfaces, parking lot shading and such other measures oriented towards reducing energy demand.
- AQ Policy E1.1.4 Actively promote the more efficient location of industries within the County which are labor intensive, utilize cogeneration or renewable sources of energy, support and enhance agricultural activities, and are consistent with other policies of the General Plan.
- AQ Policy E1.1.5 County staff will proactively work with the Cooperative Agricultural Extension office, California Energy Commission, local water and energy utilities, the agricultural industry, and other potential partners to seek funding sources and implement programs which reduce water and energy use, reduce air emissions and reduce the creation of greenhouse gases.

F. Hazardous Emissions and Public Health

AQ GOAL F1 Minimize exposure of the public to hazardous air pollutant emissions, particulates and noxious odors from freeways, major arterial roadways, industrial, manufacturing, and processing facilities.

AQ OBJECTIVE F1.1 Locate adequate sites for industrial development and roadway projects away from existing and planned sensitive land uses which minimize or avoid potential health risks to people that might result from hazardous air pollutant emissions.

Decisions for locating industrial and residential development has the potential to create land use conflicts due to exposure to hazardous emissions. In addition, planning sensitive land uses in proximity to major transportation routes and facilities can also result in public health concerns. Providing appropriate locations and separation for incompatible land uses for all types of development can minimize conflicts and promote economic growth.

AQ Policy F1.1.1 Locate residential development projects and projects categorized as sensitive receptors an adequate distance from existing and potential sources of hazardous emissions such as major transportation corridors, industrial sites, and hazardous material locations in accordance with the provisions of ARB’s Air Quality and Land Use Handbook.

AQ Policy F1.1.2 Locate new air pollution point sources such as, but not limited to industrial, manufacturing, and processing facilities an adequate distance from residential areas and other sensitive receptors in accordance with the provisions of ARB’s Air Quality Land Use Handbook.

AQ OBJECTIVE F2.1 Reduce emissions of PM₁₀, PM_{2.5} and other particulates from sources with local control potential or under the jurisdiction of the County.

Levels of PM₁₀ (particulate matter less than 10 microns in diameter) no longer exceed federal health based standards. However, maintenance of the federal standard and achieving the state standard while accommodating growth will require continued effort. The San Joaquin Valley was recently reclassified as a maintenance area for PM₁₀ under the federal criteria. Because of this classification, the SJVAPCD is required to take actions to ensure continued maintenance of the standard in the future. This is accomplished by the continued implementation of Best Available Control Measures (BACM) on all significant sources of emissions. Control efforts for sources under the jurisdiction of the County can significantly reduce these emissions. The SJVAB also exceeds the annual PM_{2.5} (particulate matter less than 2.5 microns in diameter) standards. Some actions to reduce PM₁₀ and ozone precursors will also reduce PM_{2.5}.

AQ Policy F2.1.1 Coordinate with the SJVAPCD to ensure that construction, grading, excavation and demolition activities within County's jurisdiction are regulated and controlled to reduce particulate emissions to the maximum extent feasible.

AQ Policy F2.1.2 Require all access roads, driveways, and parking areas serving new commercial and industrial development are constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.

AQ Policy F2.1.3 Develop a program to reduce PM₁₀ emissions from County maintained roads to the maximum extent feasible.

G. Climate Change

AQ GOAL G1 Reduce Kings County's proportionate contribution of greenhouse gas 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 greenhouse gas emission reduction targets consistent with the County's proportionate fair share as may be allocated by ARB and KCAG.

Global climate change is an emerging issue that requires all levels of government to take action to reduce emissions under their jurisdiction and influence.

AQ Policy G1.1.1 As recommended in ARB's Climate Change Adopted Scoping Plan (December 2008), the County establishes an initial goal of reducing greenhouse gas emissions from its internal governmental operations and land

use activities within its authority to be consistent with ARB’s adopted reduction targets for the year 2020. The County will also work with KCAG to ensure that it achieves its proportionate fair share reduction in greenhouse gas emissions as may be identified under the provisions of SB 375 (2008 Chapter 728) for any projects or activities requiring approval from KCAG.

AQ Policy G1.1.2 Progress in meeting the goals specified in AQ Policy G1.1.1 will be monitored and reported to the Board of Supervisors in the Annual Progress Report required by Government Code Section 65400(a)(2). Should the Board determine that sufficient progress is not being made to achieve the identified goals, or that proposed measures are ineffective or insufficient in meeting the goals, additional measures will be adopted as necessary.

AQ Policy G1.1.3 County staff should explore opportunities to utilize the net emission reductions identified through the confined animal feeding operation approval process to offset greenhouse gas emissions on a regional basis.

NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

The CAA and CCAA promulgate, respectively, national and State ambient air quality standards. Air quality standards have been established by US EPA (i.e., NAAQS) and California (i.e., CAAQS) for specific air pollutants most pervasive in urban environments. The NAAQS and CAAQS are shown in Table 1. Ambient standards specify the concentration of pollutants to which the public may be exposed without adverse health effects. Individuals vary in their sensitivity to air pollutants, and standards are set to protect more pollution-sensitive populations (e.g., children and the elderly). National and State standards are reviewed and updated periodically based on new health studies. California ambient standards tend to be at least as protective as national ambient standards and are often more stringent. For planning purposes, regions like the San Joaquin Valley Air Basin are given an air quality status designation by the federal and State regulatory agencies. Areas with monitored pollutant concentrations that are lower than ambient air quality standards are designated “attainment” on a pollutant-by-pollutant basis. When monitored concentrations exceed ambient standards within an air basin, it is designated “nonattainment” for that pollutant. US EPA designates areas as “unclassified” when insufficient data are available to determine the attainment status. These areas are typically considered to be in attainment of the standard.

CRITERIA AIR POLLUTANTS AND THEIR HEALTH EFFECTS

The primary criteria air pollutants that would be emitted by the project include ozone (O₃) precursors (NO_x and ROG), carbon monoxide (CO), and suspended particulate matter (PM₁₀ and PM_{2.5}). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO₂), would not be substantially emitted by the Utica Avenue Solar project or traffic, and air quality standards for them are being met throughout the San Joaquin Valley Air Basin. A description of each pollutant is provided below, as described by SJVAPCD (2015) and the Bay Area Air Quality Management District.²

² Bay Area Air Quality Management District (BAAQMD). 2011. *BAAQMD CEQA Air Quality Guidelines*. May (updated May

Ozone (O₃)

CARB describes the ozone and health impacts (CARB 2016a). While O₃ serves a beneficial purpose in the upper atmosphere (stratosphere) by reducing ultraviolet radiation potentially harmful to humans, when it reaches elevated concentrations in the lower atmosphere (troposphere) it can be harmful to the human respiratory system and to sensitive species of plants. Ozone concentrations build to peak levels during periods of light winds, bright sunshine, and high temperatures. Short-term O₃ exposure can reduce lung function in children, make persons susceptible to respiratory infection, and produce symptoms that cause people to seek medical treatment for respiratory distress. Long-term exposure can impair lung defense mechanisms and lead to emphysema and chronic bronchitis. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop headache or cough, or may experience a burning sensation in the chest.

Ozone is formed in the atmosphere by a complex series of photochemical reactions that involve “ozone precursors” that consist of two families of pollutants: oxides of nitrogen (NO_x) and reactive organic gases (ROG). NO_x and ROG are emitted from a variety of stationary and mobile sources. While NO₂, an oxide of nitrogen, is another criteria pollutant itself, ROGs are not in that category, but are included in this discussion as O₃ precursors. In 2007, CARB adopted an 8-hour health-based standard for O₃ of 0.070 parts per million (ppm). The U.S. EPA revised the 8-hour NAAQS for O₃ from 0.080 ppm in 2008 and reduced it again in 2015 to 0.070 ppm³ (CARB 2005, 2012, US EPA 2018).

Carbon Monoxide (CO)

CARB describes carbon monoxide and the health effects (CARB 2016b). Carbon monoxide or CO is a colorless, odorless, poisonous gas. Carbon monoxide’s health effects are related to its affinity for hemoglobin in the blood. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause dizziness and fatigue, and causes reduced lung capacity, impaired mental abilities and central nervous system function, and induces angina in persons with serious heart disease. Primary sources of CO in ambient air are exhaust emissions from on-road vehicles, such as passenger cars and light-duty trucks, and residential wood burning. The monitored CO levels in the Valley during the last 10 years have been well below ambient air quality standards.

2017). http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

³ U.S. EPA. 2017. *2008 National Ambient Air Quality Standards (NAAQS) for Ozone*. See <https://www.epa.gov/ozone-pollution/2008-national-ambient-air-quality-standards-naaqs-ozone>. Accessed 06/19/18.

TABLE 1 Ambient Air Quality Standards⁴

Pollutant	Averaging Time	California Standards Concentration	National Standards Concentration
Ozone	1-hour	0.09 ppm (180 µg/m ³)	—
	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³) (3-year average of annual 4 th highest daily maxima)
Carbon Monoxide	8-hour	9.0 ppm (10,000 µg/m ³)	9 ppm (10,000 µg/m ³)
	1-hour	20 ppm (23,000 µg/m ³)	35 ppm (40,000 µg/m ³)
Nitrogen dioxide	Annual Average	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
	1-hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³) (3-year average of annual 98 th percentile daily maxima)
Sulfur dioxide			
	24-hour	0.04 ppm (105 µg/m ³)	—
	3-hour	—	0.5 ppm (1,300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³) (3-year average of annual 99 th percentile daily maxima)
Respirable particulate matter (10 micron)	24-hour	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	—
Fine particulate matter (2.5 micron)	Annual Arithmetic Mean	12 µg/m ³	12.0 µg/m ³ (3-year average)
	24-hour	—	35 µg/m ³ (3-year average of annual 98 th percentile daily concentrations)
Sulfates	24-hour	25 µg/m ³	—
Lead	30-day	1.5 µg/m ³	—
	3 Month Rolling Average	—	0.15 µg/m ³
Source: CARB website, 12/1/16. SO ₂ Federal 24 hour and annual standards are not applicable in the SJVAPCD. µg/m ³ = micrograms per cubic meter ppm = parts per million			

Nitrogen Dioxide (NO₂)

As described by CARB (2016c), the major health effect from exposure to high levels of NO₂ is the risk of acute and chronic respiratory disease. Nitrogen dioxide is a combustion by-product, but it can also form in the atmosphere by chemical reaction. Nitrogen dioxide is a reddish-brown colored gas often observed during the same conditions that produce high levels of O₃ and can affect regional visibility. Nitrogen dioxide is one compound in a group of compounds consisting of

⁴ Source: California Air Resources Board (<http://www.arb.ca.gov>)

oxides of nitrogen (NO_x). As described above, NO_x is an O₃ precursor compound. Monitored levels of NO₂ in the Valley are below ambient air quality standards.

Particulate Matter (PM)

CARB describes unhealthy particulate matter and the health effects (CARB 2016d). Respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}) consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled and cause adverse health effects. PM₁₀ and PM_{2.5} are a health concern, particularly at levels above the Federal and State ambient air quality standards. PM_{2.5} (including diesel exhaust particles) is thought to have greater effects on health because minute particles are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more susceptible to the health risks of PM_{2.5} because their immune and respiratory systems are still developing. These fine particulates have been demonstrated to decrease lung function in children. Certain components of PM are linked to higher rates of lung cancer. Very small particles of certain substances (e.g., sulfates and nitrates) can also directly cause lung damage or can contain absorbed gases (e.g., chlorides or ammonium) that may be injurious to health.

Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as mining and demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. In addition to health effects, particulates also can damage materials and reduce visibility. Dust comprised of large particles (diameter greater than 10 microns) settles out rapidly and is more easily filtered by human breathing passages. This type of dust is considered more of a soiling nuisance rather than a health hazard.

The current State PM₁₀ standard, approved in 2002, is 20 micrograms per cubic meter (µg/m³) for an annual average. The 24-hour average standard is 50 µg/m³. PM_{2.5} standards were first promulgated by the U.S. EPA in 1997 and were revised in 2006 to lower the 24-hour PM_{2.5} standard to 35 µg/m³ for 24-hour exposures (Federal Register, Vol. 71, No. 10, January 17, 2006). That same action by U.S. EPA also revoked the annual PM₁₀ standard due to lack of scientific evidence correlating long-term exposures of ambient PM₁₀ with health effects. CARB has only adopted an annual average PM_{2.5} standard, which is set at 12 µg/m³. This is equal to the NAAQS of 12 µg/m³ (CARB 2016f).

TOXIC AIR CONTAMINANTS

Besides the "criteria" air pollutants, there is another group of substances found in ambient air referred to as Hazardous Air Pollutants (HAPs) under the CAA and Toxic Air Contaminants (TACs) under the CCAA. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, state, and federal level.

HAPs are the air contaminants identified by U.S. EPA as known or suspected to cause cancer, serious illness, birth defects, or death. Many of these contaminants originate from human activities, such as fuel combustion and solvent use. Mobile source air toxics (MSATs) are a subset of the 188 HAPs. Of the 21 HAPs identified by U.S. EPA as MSATs, a priority list of six priority HAPs were identified that include: diesel exhaust, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. The Federal Highway Administration (FHWA 2012) reports that while vehicle miles traveled (VMT) in the United States is expected to increase by 64 percent over the period 2000 to 2020, emissions of MSATs are anticipated to decrease substantially as a result of efforts to control mobile source emissions (by 57 percent to 67 percent depending on the contaminant).

California developed a program under the Toxic Air Contaminant Identification and Control Act (Assembly Bill [AB] 1807, Tanner 1983), also known as the Tanner Toxics Act, to identify, characterize and control TACs. Subsequently, AB 2728 (Tanner, 1992) incorporated all 188 HAPs into the AB 1807 process. TACs include all HAPs plus other contaminants identified by CARB. These are a broad class of compounds known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter (DPM) near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly), described by CARB (2016e), was enacted in 1987, and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

Particulate matter from diesel exhaust is the predominant TAC in urban air and is estimated to represent about 70 percent of the cancer risk from TACs, based on the statewide average reported by CARB (2012). According to CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under State Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB (2012) reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing TACs emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. Particulate matter emitted from diesel-fueled engines (DPM) was found to comprise much of that risk. In 1998, CARB formally identified DPM as a TAC (CARB 2012). DPM is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by U.S. EPA as HAPs, and by CARB as TACs. The vast majority of diesel exhaust particles (over 90 percent) consist of PM_{2.5}, which are the particles that can be inhaled deep into the lung (CARB 2012). Like other particles of this size, a portion will eventually become trapped within the lung possibly leading to adverse health effects.

While the gaseous portion of diesel exhaust also contains TACs, CARB's 1998 action was specific to DPM, which accounts for much of the cancer-causing potential from diesel exhaust. California has adopted a comprehensive diesel risk reduction program to reduce DPM emissions 85 percent by 2020 (CARB 2000). The EPA and CARB adopted low sulfur diesel fuel standards in 2006 that reduce DPM substantially.

Smoke from residential wood combustion can be a source of TACs. Wood smoke is typically emitted during winter when dispersion conditions are poor. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind the pollution can persist for many hours, especially in sheltered valleys during winter. Wood smoke also contains a significant amount of PM₁₀ and PM_{2.5}. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

EXISTING AIR QUALITY

As previously discussed, the San Joaquin Valley experiences poor air quality conditions, due primarily to elevated levels of ozone and particulate matter (SJVAPCD 2015a). CARB, in cooperation with SJVAPCD, monitors air quality throughout the San Joaquin Valley Air Basin. Monitoring data presented in Table 2 was derived for each pollutant based upon the closest monitoring station to the project site.

Ozone

In California, ozone concentrations are generally lower near the coast regions than inland regions. The inland regions, such as the San Joaquin Valley, typically experience some of the higher ozone concentrations. This is because of the greater frequency of hot days (that is, higher temperatures) and stagnant air conditions (that is, very calm atmospheric conditions with very gentle winds) that are conducive to ozone formation. Many areas of the Valley lie downwind of urban areas that are sources of ozone precursor pollutants. While Kings County is fairly rural, exceedances of the ozone standard occurred on 13 to 29 days per year, based on the last 3 years of available monitoring data.

Carbon Monoxide

State and federal standards for carbon monoxide are met throughout California as a result of cleaner vehicles and fuels that were reformulated in the 1990s. For CO, the 2012 monitored value of 2.2 ppm for an 8-hour average was used as the air basin maximum level (CARB 2016f). Because CO levels are so low in the air basin, monitoring was discontinued after 2012.

TABLE 2 Summary of Criteria Air Pollution Monitoring Data for Kings County

Pollutant	Standard	Monitored Values ⁽¹⁾ and Exceedance Days		
		2018	2019	2020
Ozone (ppm)	State 1-Hour	0.108 / 1	0.093 / 0	0.103 / 6
Ozone (ppm)	State 8-Hour	0.082 / 29	0.076 / 13	0.088 / 26
Ozone (ppm)	Federal 8-Hour	0.082 / 29	0.076 / 13	0.076 / 13
PM ₁₀ (ug/m ³)	State 24-Hour	181/ 114	221/ 104	181/ 132
PM ₁₀ (ug/m ³)	Federal 24-Hour	174/ 6⁽²⁾	212/ 7⁽²⁾	180/ 7⁽²⁾
PM ₁₀ (ug/m ³)	State Annual	47.9	45.2	NR
PM _{2.5} (ug/m ³)	Federal 24-Hour	107.8 / 17⁽²⁾	48.2 / 21⁽²⁾	147.0 / 52⁽²⁾
PM _{2.5} (ug/m ³)	State Annual	12.3	12.1	19.8
PM _{2.5} (ug/m ³)	Federal Annual	12.2	12.1	19.8
Carbon Monoxide (ppm)	State/Fed.8-Hour	NR / -- ⁽³⁾	NR / -- ⁽³⁾	NR / -- ⁽³⁾
Nitrogen Dioxide (ppm)	State 1-Hour	0.056 / 0	0.062 / 0	0.051 / 0
Nitrogen Dioxide (ppm)	Federal 1-Hour	0.056 / 0	0.063 / 0	0.052 / 0
Nitrogen Dioxide (ppm)	State Annual	0.008	0.008	0.008

Note: (1) Monitored values are the high values considering the form of the applicable standard,

(2) affected by wildfire smoke, and

(3) NR = not reported in summaries, but last measured levels in 2012 were 2 ppm.

Source: CARB ADAM Data at <http://www.arb.ca.gov/adam/index.html>, Accessed 03/01/2022

Particulate Matter (PM_{2.5} and PM₁₀)

Most areas of California have either 24-hour or annual PM₁₀ concentrations that exceed the State standards. Most urban areas exceed the State annual standard and the 2006 24-hour federal standard. In the San Joaquin Valley (S.J. Valley or Valley), there is a strong seasonal variation in PM, with higher PM₁₀ and PM_{2.5} concentrations occurring in the fall and winter months. These higher concentrations are caused by increased activity for some emission sources and meteorological conditions that are conducive to the build-up of particulate matter. Industry and motor vehicles consistently emit particulate matter. Seasonal sources of particulate matter in San Joaquin Valley include wildfires, agricultural activities, windblown dust, and residential wood burning. In California, area sources, which primarily consist of fugitive dust, account for the majority of directly emitted particulate matter. This includes dust from paved and unpaved roads. The ARB estimates that 85 percent of directly emitted PM₁₀ (and 66 percent of directly emitted PM_{2.5}) is from area sources (SJVAPCD 2016). During the winter, the PM_{2.5} size fraction makes up much of the total particulate matter concentrations. The major contributor to high levels of ambient PM_{2.5} is the secondary formation of particulate matter caused by the reaction of NO_x and ammonium to form ammonium nitrate. ARB estimates that the secondary portion of PM_{2.5} makes up about 50 percent of the annual concentrations in the Valley (SJVAPCD 2016). The S.J. Valley also records high PM₁₀ and PM_{2.5} levels during the fall. During this season, both the coarse fraction (from dust) and the PM_{2.5} fraction result in elevated PM_{2.5} and PM₁₀ concentrations. Measured PM_{2.5} levels exceeded federal standards on an estimated 17 to 52 days per year. Measured PM₁₀

levels exceeded State standards on 19 to 20 days. Sampling occurs every sixth day so CARB estimated there were 104 to 132 days per year that PM₁₀ levels exceeded the standard). Note wildfire smoke contributed to the highest measured levels and frequency that standards were exceeded.

Other Pollutants

Current and past air monitoring data indicate that the San Joaquin Valley meets ambient air quality standards for NO₂, SO₂, and lead. Monitoring of lead, sulphates, hydrogen sulfide and vinyl chloride is not routinely conducted by CARB in the air basin (CARB 2018).

Air Quality Trends

Air quality in the Valley has improved significantly despite a natural low capacity for pollution, created by unique geography, topography, and meteorology. Emissions have been reduced at a rate similar or better than other areas in California. Since 1990, emissions of ozone precursors (i.e., NO_x and ROG) reduced by 80 percent (CARB 2016g), resulting in much fewer days where ozone standards have been exceeded. Direct emissions of PM₁₀ and PM_{2.5} have been reduced by 10 to 13 percent (CARB 2013). As a result, the San Joaquin Valley is the first air basin that was previously classified as “serious nonattainment” under the NAAQS to come into attainment of the PM₁₀ standards.

ATTAINMENT STATUS

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The San Joaquin Valley as a whole does not meet State or federal ambient air quality standards for ground level O₃ and State standards for PM₁₀ and PM_{2.5}. The attainment status for the Valley with respect to various pollutants of concern is described in Table 3.

Under the CAA, the U.S. EPA has classified the Air Basin as *extreme nonattainment* for the 8-hour O₃ standard. As mentioned earlier, the Air Basin has attained the NAAQS for PM₁₀. The Air Basin is designated *nonattainment* for the older 1997 PM_{2.5} NAAQS. U.S. EPA recently designated the Air Basin as nonattainment for the newer 2006 24-hour PM_{2.5} standard. The U.S. EPA classifies the Air Basin as *attainment* or *unclassified* for all other air pollutants, which include CO and NO₂.

At the state level, the Air Basin is considered *severe nonattainment* for ground level O₃ and *nonattainment* for PM₁₀ and PM_{2.5}. In general, California ambient air quality standards are more stringent than the national ambient air quality standards. The Air Basin is required to adopt plans on a triennial basis that show progress towards meeting the State O₃ standard. The Air Basin is considered *attainment* or *unclassified* for all other pollutants.

TABLE 3 Project Area Attainment Status

Pollutant	Federal Status	State Status
Ozone (O ₃) – 1-Hour Standard	No Designation	Severe Nonattainment
Ozone (O ₃) – 8-Hour Standard	Extreme Nonattainment	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Attainment-Maintenance	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Sulfates and Lead	No Designation	Attainment
Hydrogen Sulfide	No Designation	Unclassified
Visibility Reducing Particles	No Designation	Unclassified
Vinyl Chloride	No Designation	Attainment

REGIONAL AIR QUALITY PLANS

In response to not meeting the NAAQS, the region is required to submit attainment plans to US EPA through the State, which are referred to as the SIP. These plans are provided on SJVAPCD’s website at http://valleyair.org/Air_Quality_Plans/PM_Plans.htm.

CARB submitted the 2004 Extreme Ozone Attainment Demonstration Plan to EPA in 2004, which addressed the old 1-hour NAAQS. The region’s 2007 Ozone Plan, addressing the 8-hour ozone NAAQS, was submitted to US EPA and approved in March 2012. That plan predicts attainment of the standard throughout 90 percent of the district by 2020 and the entire district by 2024. To accomplish these goals, that plan would reduce NO_x emissions further by 75 percent and ROG emissions by 25 percent. A wide variety of control measures are included in these plans, such as reducing or offsetting emissions from construction and traffic associated with land use developments. The air basin was since designated as an extreme ozone nonattainment area for the more stringent 2008 8-hour ozone NAAQS. The 2016 Plan for the 2008 8-Hour Ozone Standard was adopted by SJVAPCD on June 16, 2016. Addressing the 2008 8-hour ozone standard will pose a tremendous challenge for the Valley, as NO_x emissions will be reduced by 60 percent. will bring the San Joaquin Valley into attainment of EPA’s 2008 8-hour ozone standard as expeditiously as practicable, no later than December 31, 2031. SJVAPCD’s 2016 Ozone Plan received EPA’s final approval or conditional approval of all portions of the plan in 2019. EPA found that sufficient quantified emissions reductions are identified in the plan without including unquantified emissions reductions such as those related to the “further study” of Rule 4694 that controls emissions from winery activities (fermentation and storage of wines). The District adopted the 2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard on June 18, 2020, as required to the federal Clean Air Act. RACT requirements

apply to sources that are subject to U.S. EPA Control Techniques Guidelines (CTGs) and for “major sources” of VOCs and NO_x (i.e., ozone precursors). These RACT requirements ensure that significant sources of these emissions are controlled to a “reasonable” extent. The District is currently developing the *2022 Plan for the 2015 8-Hour Ozone Standard*.

On April 25, 2008, US EPA proposed to approve the *2007 PM₁₀ Maintenance Plan and Request for Re-designation*. The region now meets the NAAQS for PM₁₀. The SJVAPCD adopted the 2008 PM_{2.5} Plan on April 30, 2008. US EPA has designated the basin as Attainment.

The SJVAPCD adopted the *2018 Plan for the 1997, 2006 and 2012 PM_{2.5} Standards* on November 15, 2018. This plan was approved by CARB on January 24, 2019. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable. The plan uses control measures to reduce NO_x, which also leads to fine particulate formation in the atmosphere. The plan incorporates measures to reduce direct emissions of PM_{2.5}, including a strengthening of regulations for various SJVAB industries and the general public through new rules and amendments. The plan increases controls on residential wood-burning activities.

Both the ozone and PM_{2.5} plans include all measures (i.e., federal, state and local) that would be implemented through rule making or program funding to reduce air pollutant emissions. Transportation Control Measures (TCMs) are part of these plans. The plans described above addressing ozone also meet the state planning requirements.

SJVAPCD RULES AND REGULATIONS

The SJVAPCD has adopted rules and regulations that apply to land use projects, such as the proposed project. These are described below.

SJVAPCD Indirect Source Review Rule

In 2005, the SJVAPCD adopted Rule 9510 Indirect Source Review (ISR or Rule 9510) to reduce NO_x and PM₁₀ emissions from new land use development projects. The rule, which became effective March 1, 2006, is the result of state requirements outlined in the region’s portion of the State Implementation Plan (SIP). Rule 9510 was amended in December 2017 (and became effective March 21, 2018) to ensure that all large development projects are subject to the rule (SJVAPCD 2017). The SJVAPCD’s SIP commitments are contained in the 2004 Extreme Ozone Attainment Demonstration Plan and the 2003 PM₁₀ Plan. These plans identified the need to reduce PM₁₀ and NO_x substantially in order to attain and maintain the ambient air-pollution standards on schedule.

New projects that would generate substantial air pollutant emissions are subject to this rule. The rule requires projects to mitigate both construction and operational period emissions by applying the SJVAPCD-approved mitigation measures and paying fees to support programs that reduce emissions. The rule requires mitigated exhaust emissions during construction based on the following levels:

- 20 percent reduction from unmitigated baseline in total NO_x exhaust emissions
- 45 percent reduction from unmitigated baseline in total PM₁₀ exhaust emissions

For operational emissions, Rule 9510 requires the following reductions:

- 33.3 percent of the total operational NO_x emissions from unmitigated baseline
- 50 percent of the total operational PM₁₀ exhaust emissions from unmitigated baseline

Fees apply to the unmitigated portion of the emissions and are based on estimated costs to reduce the emissions from other sources plus estimated costs to cover administration of the program. In accordance with ISR, the project applicant will submit an application for approval of an Air Impact Assessment (AIA) to the SJVAPCD.

Regulation VIII – Fugitive PM₁₀

SJVAPCD controls fugitive PM₁₀ through Regulation VIII (Fugitive PM₁₀ Prohibitions). The purpose of this regulation is to reduce ambient concentrations of PM₁₀ by requiring actions to prevent, reduce or mitigate anthropogenic (human caused) fugitive dust emissions. This applies to activities such as construction, bulk materials, open areas, paved and unpaved roads, material transport, and agricultural areas. Sources regulated are required to provide dust control plans that meet the regulation requirements. Fees are collected by SJVAPCD to cover costs for reviewing plans and conducting field inspections.

Other SJVAPCD Rules

Other SJVAPCD Rules and Regulations that may be applicable to the project include, but are not limited to:

- Rule 4101 (Visible Emissions): The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. The provisions of this rule apply to any source operation which emits or may emit air contaminants.
- Rule 4102 (Nuisance): The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.
- Rule 4601 (Architectural Coatings): The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.
- Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations): The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. Paving operations will be subject to Rule 4641.

The Air District is anticipated to provide a determination of applicable rules/regulations to the project when specific building, grading, etc. plans are provided to the Air District prior to initiation of construction- and operation-related activities that fall within the purview of the Air District's regulatory authority.

SENSITIVE RECEPTORS

“Sensitive receptors” are defined as facilities where sensitive population groups, such as children, the elderly, the acutely ill, and the chronically ill, are likely to be located. Land uses that include sensitive receptors are residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptor is a rural residence located over 3,000 feet northwest of the Project site.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

Appendix G, of the California Environmental Quality Act (CEQA) Guidelines (Environmental Checklist) contains a list of project effects that may be considered significant. The project would result in a significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) affecting a substantial number of people;
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The SJVAPCD has developed the Guide for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015), also known as the GAMAQI. The following thresholds of significance, obtained from the SJVAPCD’s GAMAQI, are used to determine whether a proposed project would result in a significant air quality impact:

- 1) Construction Emissions of PM. Construction projects are required to comply with Regulation VIII as listed in the SJVAPCD; however, the size of the project and the proximity to sensitive receptors may warrant additional measures.
- 2) Criteria Air Pollutant Emissions. SJVAPCD current adopted thresholds of significance for criteria pollutant emissions and their application is presented in Table 4. These thresholds address both construction and operational emissions. Note that the District treats permitted equipment and activities separately. The project is not considered a source of SOx emissions and would have relatively low CO emissions.
- 3) Ambient Air Quality. Emissions that are predicted to cause or contribute to a violation of an ambient air quality would be considered a significant impact. SJVAPCD recommends

that dispersion modeling be conducted for construction or operation when on-site emissions exceed 100 pounds per day after implementation of all mitigation measures.

- 4) Local CO Concentrations. Traffic emissions associated with the proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the ambient air quality standards.
- 5) Toxic Air Contaminants or Hazardous Air Pollutants. Exposure to HAPs or TACs would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual would exceed 20 in 1 million or would result in a Hazard Index greater than 1 for non-cancer health effects.
- 6) Odors. Odor impacts associated with the proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors through development of a new odor source or placement of receptors near an existing odor source.
- 7) Greenhouse Gases (GHGs). In SJVAPCD’s *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects Under CEQA*, the District establishes a requirement that land use development projects demonstrate a 29 percent reduction in GHG emissions from Business-As-Usual (BAU).
- 8) With respect to cumulative air quality impacts, the GAMAQI provides that any proposed project that would individually have a significant air quality impact (i.e., exceed significance thresholds for criteria pollutants ROG, NOx, or PM₁₀) would also be considered to have a significant cumulative impact. In cases where project emissions are all below the applicable significance thresholds, a project may still contribute to a significant cumulative impact if there are other projects nearby whose emissions would combine with project emissions to result in an exceedance of one or more significance thresholds for criteria pollutants.

**TABLE 4 SJVAPCD Air Quality Thresholds of Significance –
Criteria Pollutant Emission Levels in Tons Per Year**

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
Carbon Monoxide (CO)	100	100	100
Nitrogen Oxides (NOx)	10	10	10
Reactive Organic Gases	10	10	10
Sulfur Dioxide (SOx)	27	27	27
Particulate Matter – PM ₁₀	15	15	15
Particulate Matter – PM _{2.5}	15	15	15

Source: San Joaquin Valley Air Pollution Control District, GAMAQI, Page 80, Table 2 or website at <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>.

AIR QUALITY IMPACTS

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to the proposed project operation. During construction, the proposed project would affect local particulate concentrations primarily due to fugitive dust sources and contribute to ozone and PM₁₀/PM_{2.5} levels due to exhaust emissions. Over the long-term, the proposed project would result in an increase in emissions of ozone precursors such as ROG and NO_x, primarily due to increased motor vehicle trips (employee trips, site deliveries, and onsite maintenance activities).

Impact 1: Construction Dust. Construction activity involves a high potential for the emission of fugitive particulate matter emissions that would affect local air quality. This would be *less-than-significant* with implementation of Regulation VIII.

Construction activities would temporarily affect local air quality, causing a temporary increase in particulate dust and other pollutants. Dust emission during periods of construction would increase particulate concentrations at neighboring properties. This impact is potentially significant, but normally it can be mitigated.

The Project construction activities are anticipated to take place over an approximate 3-month period during late 2022. Site preparation and disturbance (e.g., vehicle travel on exposed areas) would likely result in the greatest emissions of dust and PM₁₀/PM_{2.5}. Windy conditions during construction could cause substantial emissions of PM₁₀/PM_{2.5}.

There are no sensitive receptors near the site, as the closest residence is over 4,000 feet away. The SJVAPCD's GAMAQI, emphasizes implementation of effective and comprehensive control measures. SJVAPCD adopted a set of PM₁₀ fugitive dust rules collectively called Regulation VIII. This regulation essentially prohibits the emissions of visible dust (limited to 20-percent opacity) and requires that disturbed areas or soils be stabilized. Compliance with Regulation VIII during the construction phase of the proposed project would be required. Prior to construction of each project phase, the applicant would be required to submit a dust control plan that meets the regulation requirements. These plans are reviewed by SJVAPCD and construction cannot begin until District approval is obtained. The provisions of Regulation VIII and its constituent rules pertaining to construction activities generally require:

- Effective dust suppression (e.g., watering) for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the workday or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.
- Cease outdoor construction activities that disturb soils during periods with high winds.
- Record keeping for each day dust control measures are implemented.
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Landscape or replant vegetation in disturbed areas as quickly as possible.

- Prevent the tracking of dirt on public roadways. Limit access to the construction sites, so tracking of mud or dirt on to public roadways can be prevented. If necessary, use wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Suspend grading activity when winds (instantaneous gusts) exceed 25 mph or dust clouds cannot be prevented from extending beyond the site.

Anyone who prepares or implements a Dust Control Plan must attend a training course conducted by the District. Construction sites are subject to SJVAPCD inspections under this regulation. Compliance with Regulation VIII, including the effective implementation of a Dust Control Plan that has been reviewed and approved by the SJVAPCD, would reduce dust and PM₁₀ emissions to a *less-than-significant* level.

Impact 2: Construction Exhaust Emissions. Equipment and vehicle trips associated with construction would emit ozone precursor and particulate matter air pollutants on a temporary basis. Construction emissions would be below the GAMAQI significance threshold. This would be a *less-than-significant* impact.

Construction equipment exhaust affects air quality both locally and regionally. Emissions of DPM, a TAC, can affect local air quality. This impact is discussed under *Impact 5*. Emissions of air pollutants that could affect regional air quality were addressed by modeling emissions and comparing them to the SJVAPCD significance thresholds. Construction period air pollutant emissions occurring within the air basin were modeled using the California Emissions Estimator Model, CalEEMod 2020.4.0 model, with project construction information. This model was developed by the South Coast AQMD and other California Air Districts. SJVAPCD recommends the use of this model for construction and operational analysis of land use development projects. The model predicts emissions of ozone precursor pollutants (i.e., ROG and NO_x) and particulate matter (i.e., PM₁₀ and PM_{2.5}).

Construction build-out scenarios were developed based on the construction schedules, construction vehicle trips, and equipment proposed for use in the project description. Construction emissions were predicted for the construction of the Utica Avenue Solar Generating Facility construction. The emissions computed using CalEEMod for this assessment address use of construction equipment, worker vehicle travel, on-site vehicle and truck use, and off-site truck travel by vendors or equipment/material deliveries.

Construction was modeled for 3 different phases as follows:

- Phase 1 – Site preparation that would begin September 2022 and last 30 workdays
- Phase 2 – Installation of solar arrays that would begin about late September 2022 and last 60 days
- Phase 3 – Installation of inverters, transformers, switchgear, batteries, and interconnections that would begin about November 2022 and last 30 days

The types, quantity and duration of construction equipment anticipated for construction were provided. The total hours each piece of equipment would operate was divided by the number of

workdays in the phase to compute the hours per day that were entered into CalEEMod along with the quantity of equipment. Default horsepower and load factors assigned by CalEEMod were assumed.

For construction vehicle trips, the number of trips and average trip distance were provided for the various types of trips: workers, freight, gravel import, concrete, and water trucks. Some of the freight trips would originate outside of the air basin and only the portion of the trip within the air basin was modeled. A small fraction of the trip travel distance would occur on site where roads are not paved. This was assumed to average one-quarter of a mile. Water trucks were assumed to travel mostly on-site (i.e., 90 percent of the travel length). When not traveling on site, trips were assumed to be made mostly on freeways or large arterial roadways (e.g., highways).

Both criteria air pollutant exhaust and fugitive dust (i.e., PM₁₀ and PM_{2.5}) were computed by CalEEMod. Note that the unmitigated CalEEMod modeling does not include the effects of SJVAPCD Regulation VIII that would substantially reduce fugitive PM₁₀ and PM_{2.5} emissions. *Attachment 1* includes the construction assumptions that were used to model emissions. *Attachment 2* includes the CalEEMod modeling outputs for construction and operational emissions.

Unmitigated and uncontrolled emissions from all phases of construction are reported in Table 5. As shown, unmitigated construction emissions would not exceed the applicable SJVAPCD thresholds, including PM₁₀ (exhaust plus fugitive). However, these emissions are subject to SJVAPCD rules and regulations that would result in controlled emissions from this activity that would be lower than reported in Table 5.

The SJVAPCD Indirect Source Review Rule (Rule 9510) applies to construction of the projects with mitigated emissions above 2.0 tons per year (tpy) of NO_x or 2.0 tpy of PM₁₀. Regardless of whether a project's construction emissions of regional pollutants would exceed the Air District's significance thresholds for each pollutant, the project is still required to comply with Rule 9510 to ensure that the project contributes its fair share of emissions reductions in order to achieve the basin-wide reduction targets established in the Air District's Ozone and PM attainment plans. Rule 9510 requires that the project reduce uncontrolled construction exhaust emissions by 20 percent for NO_x and 45 percent for PM₁₀ from calculated unmitigated levels. The basis for the reductions is use of the CalEEMod emissions for statewide construction fleets. Use of newer equipment could result in substantially lower emissions. SJVAPCD encourages reductions through on-site mitigation measures. (Note: The use of the term "mitigation" under Rule 9510 does not refer to mitigation of impacts under CEQA; i.e., the ISR emission reduction percentages are required without regard to whether the CEQA emissions thresholds are exceeded or not.) Fees to purchase or sponsor off-site reductions through SJVAPCD apply when on-site mitigation measures do not achieve the required percentage of emissions reduction. Using less-polluting construction equipment, such as newer equipment or retrofitting older equipment reduces construction emissions on-site. A combination of on-site and off-site measures can be implemented to meet the overall emission reduction requirements. The uncontrolled emissions reported in Table 5 do not include the reductions required by Rule 9510.

The Utica Avenue Solar facility would be decommissioned at the end of its productive life, after 25 to 30 years of operation. The activities associated with deconstruction would be comparable to construction, but emissions are expected to be substantially lower given anticipated reductions in vehicle and equipment emissions to be phased-in over time per State and federal regulations, and also because of the generally lower intensity of equipment use associated with decommissioning. With the application of Regulation VIII dust control requirements, fugitive PM₁₀ emissions are likewise expected to be below the applicable significance thresholds, as they are for construction. Therefore, the emissions associated with project decommissioning would be *less-than-significant*.

TABLE 5 Annual Construction Emissions in Tons per Year

Construction Year	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Uncontrolled Emissions *					
2022 Uncontrolled	0.08	0.58	0.72	2.57	0.29
2022 Controlled	0.08	0.58	--	1.62	0.19
<i>Significance thresholds</i>	10	10	100	15	15
<i>Uncontrolled</i>	No	No	No	No	No

* Values reported for “Controlled” PM₁₀ and PM_{2.5} include fugitive dust control in the form of site watering and on-site vehicle speed limits. Fugitive dust emissions do not include the effect of measures implemented under Regulation VIII or required by Kings County.

Table 5 does not report annual construction period emissions with application of District Rule 9510 (ISR) or Regulation VIII controls. Controlled construction emissions are below the Partial Exemption limits of ISR. Therefore, requirements of ISR to further reduce NO_x and PM₁₀ emissions are not anticipated. Regulation VIII that reduces fugitive dust would apply to construction activities.

Construction period emissions of ROG, NO_x CO, and PM₁₀ would be below the thresholds used by SJVAPCD to judge the significance of construction air quality impacts under CEQA. Thus, while the residual construction-related emissions of ozone precursors and particulates (i.e., emissions below the CEQA thresholds) may result in a small decrease in overall air quality, and may therefore have a small adverse health affect (as described earlier in this section under “Criteria Air Pollutants and Their Health Effects”), the overall health impact would not be significant.

Impact 3: Operational Emissions. Proposed Project operational emissions, generated primarily by traffic and maintenance equipment, would increase emissions of ozone precursors and particulate matter, but they would be below GAMAQI significance thresholds. These increases would be *less-than-significant*.

The CalEEMod model was also used to estimate annual emissions from operation of the Utica Avenue Solar Project. The first full year that the project could be operational is 2023 and was used as the analysis year. Maintenance vehicle and some off-road equipment usage would occur on-site as well as workers traveling and occasional equipment or vendor deliveries would result in some emissions.

Emissions were computed using the CalEEMod model. Activity input to the model included the on-site travel activity, travel conditions (paved or unpaved), on-site equipment usage and off-site vehicle travel. Note that on-site travel and activity were assumed to occur on unpaved roadways. The project would have internal gravel roadways that must be treated with dust palliatives to minimize dust generation, which was included in the modeling as controlled conditions.

The effect of the proposed project on regional air quality was evaluated by estimating emissions for the full project operating in 2024. The annual emissions associated with the proposed project are shown in Table 6. Output from CalEEMod is contained in *Attachment 2*.

TABLE 6 Annual Project Operational Emissions in Tons Per Year

Project	ROG	NO _x	CO	PM ₁₀ ¹	PM _{2.5} ¹
Operations	<0.01	0.01	0.04	0.01	<0.01
<i>Significance Thresholds</i>	<i>10</i>	<i>10</i>	<i>100</i> ²	<i>15</i>	<i>15</i>
<i>Exceed Thresholds?</i>	No	No	No	No	No

¹Includes both exhaust and fugitive dust emissions.

²Significant if emissions exceed 100 tons per year and then contribute to violation of the NAAQS/CAAQS

Stationary combustion equipment that could emit air pollution during facility operation is not proposed for the project. Photovoltaic energy projects, such as this one, do not usually include these sources. If stationary sources are included in the project at a later date, they may require permits from SJVAPCD. Such sources could include combustion emissions from standby emergency generators (rated 50 horsepower or greater). These sources would normally result in minor emissions, compared to those from traffic generation and off-road maintenance equipment reported above. Sources of stationary air pollutant emissions complying with all applicable SJVAPCD regulations generally will not be considered to have a significant air quality impact. Stationary sources that are exempt from SJVAPCD permit requirements due to low emission rates would not be considered to have a significant air quality impact.

As previously mentioned, the project is subject to SJVAPCD’s ISR Rule 9510 to reduce NO_x and PM₁₀ emissions. The emissions in Table 6 do not reflect any reductions that may be required under ISR. Operational emissions are well below the Partial Exemption limits of ISR. Therefore, requirements of ISR to further reduce NO_x and PM₁₀ emissions are not anticipated.

Mitigation Measure for Impact 3: None Required.

Impact 4: Carbon monoxide concentrations from operational traffic. Mobile emissions generated by project traffic would increase carbon monoxide concentrations at intersections in the project vicinity. However, resulting concentrations would be below ambient air quality standards, and therefore, considered a *less-than-significant* impact.

Project traffic would have a negligible effect on concentrations of CO along roadways providing access to the project. Carbon monoxide is a localized air pollutant, where highest concentrations are found very near sources. The major source of CO is automobile traffic. Elevated

concentrations, therefore, are usually only found near areas of high traffic volume and congestion. The Project would increase traffic by less than 3 vehicle trips per day.

Emissions and ambient concentrations of CO have decreased greatly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and reformulated motor vehicle fuels. No exceedances of the State or federal CO standards have been recorded at any of San Joaquin Valley's monitoring stations in the past 15 years. The San Joaquin Valley Air Basin has attained the State and National CO standards.

However, despite this progress, localized CO concentrations are still a concern in the San Joaquin Valley and are addressed through the SJVAPCD screening method that can be used to determine with fair certainty that the effect a project has on any given intersection would not cause a potential CO hotspot. A project can be said to have no potential to create a CO violation or create a localized hotspot if either of the following conditions are not met: level of service (LOS) on one or more streets or intersections would be reduced to LOS E or F; or the project would substantially worsen an already LOS F street or intersection within the project vicinity. As the proposed project will not do either of these, the potential impact on CO would be considered *less-than-significant*.

Mitigation Measure for Impact 4: None Required.

Impact 5: Exposure of Sensitive Receptors to Toxic Air Contaminants. Construction activity, delivery trucks, employee traffic and emissions from onsite vehicles used in maintenance activities would expose nearby receptors to toxic air contaminants. Based on the low levels of predicted construction toxic air contaminants and the distance to the nearest sensitive receptor, a screening health risk assessment to assess the potential cancer risk would not be required and the emissions impacts would be *less-than-significant*.

The TAC of concern is DPM emitted from diesel-fueled vehicles and equipment during construction of the project.

For the Utica Avenue Solar project, the highest daily levels of DPM would be emitted during construction activities from use of heavy-duty diesel equipment such as bulldozers, excavators, loaders, graders and diesel-fueled haul trucks. However, these emissions would be intermittent, vary throughout the project site area, and be of a temporary duration (approximately 3 months of total construction activity). During project operations, low-level DPM emissions would result from worker vehicles and maintenance activities, but they would be constant over the lifetime of the project. Operational DPM emissions would mainly result from the use of pickup trucks with a portable water trailer (and pump) which would be used for panel cleaning.

Levels of DPM emissions can be generally inferred from PM₁₀ emissions, of which diesel exhaust constitutes a substantial component. Table 5, above, shows that PM₁₀ emissions from solar project construction would be well below the applicable significance threshold. Table 6, above, shows that PM₁₀ emissions from operational activities would be well below the significance threshold.

Because of the relatively small levels of DPM emissions during project construction and operation, and due to the substantial distance to the nearest sensitive receptor (e.g., the nearest residence is at least 3,000 feet from the nearest project boundary), DPM emissions from project construction would disperse to negligible levels, and thus the health impacts associated with exposure to DPM from project construction and operation are not anticipated to be significant. Therefore, the Utica Avenue Solar Project would result in a *less-than-significant impact* in terms of exposing sensitive receptors to substantial concentrations of TACs.

Mitigation Measure for Impact 5: None required.

Impact 6: Odors. The project would result in temporary odors during construction. This impact would be *less-than-significant*.

During construction, the various diesel powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and not likely to be noticeable for extended periods of time much beyond the project's site boundaries. The potential for diesel odor impacts is, therefore, *less-than-significant*.

During project operations, the project is not expected to generate any objectionable odors. Therefore, the odor impacts associated with operations would be *less-than-significant*.

Mitigation Measure for Impact 6: None proposed.

Impact 7: Consistency with Clean Air Planning Efforts. The project would not conflict with the current clean air plan or obstruct its implementation. This would be a *less-than-significant impact*.

The GAMAQI does not include methodologies for assessing the effect of a project on consistency with clean air plans developed by the SJVAPCD. Regional clean air plans developed by SJVAPCD rely on local land use designations to develop population and travel projections that are the basis of future emissions inventories. Air pollution control plans are aimed at reducing these projected future emissions. The project land uses would not alter population and vehicle related emissions projections contained in regional clean air planning efforts in any measurable way, and would not conflict with achievement of the control plans aimed at reducing these projected emissions. Therefore, the project would not conflict with or obstruct implementation of efforts outlined in the region's air pollution control plans to attain or maintain ambient air quality standards. This would be a *less-than-significant impact*.

Also, as discussed above, in 2005 the SJVAPCD adopted the ISR Rule in order to fulfill the District's emission reduction commitments in its PM₁₀ and Ozone attainment plans. The District has determined that implementation and compliance with the ISR would reduce the cumulative PM₁₀ and NO_x impacts of growth anticipated in the air quality plans to a less-than-significant level. Since the project would be required to implement the emissions reductions under ISR, it would fulfill its share of achieving the District's emission reduction commitments in the PM₁₀ and Ozone attainment plans. Therefore, the project would result in a *less-than-significant impact* since it would not conflict with or obstruct implementation of the applicable air quality plans.

Mitigation Measure for Impact 7: None required.

CUMULATIVE AIR QUALITY IMPACTS

Methodology

The SJVAPCD has developed criteria to determine if a development Project could result in potentially significant regional emissions. According to the GAMAQI, any proposed project that would individually have a significant air quality impact (i.e., exceed significance thresholds for ROG or NO_x) would also be considered to have a significant cumulative air quality impact. Impacts of local pollutants (CO and TACs) are cumulatively significant when modeling shows that the combined emissions from the project and other existing and planned projects will exceed air quality standards. The GAMAQI further states that "a Lead Agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located" (SJVAPCD 2015, p. 66). For local impacts of PM₁₀ from unrelated construction projects, the GAMAQI recommends a qualitative approach where construction activities from unrelated projects in the area should be examined to determine if enhanced dust suppression measures are necessary.

Regional Air Pollutants

As discussed under ‘Significance Criteria’ above, cumulative ozone impacts would be considered significant - if the project-specific emissions exceed the SJVAPCD significance thresholds for ozone precursors ROG or NO_x, or the project is not consistent with the regional clean air plan. As discussed in Impact 2 (and shown in Table 5) above, project-specific construction emissions of ozone precursor pollutants (ROG and NO_x) and PM were found to be less-than-significant after mitigation. As discussed in Impact 3 (and shown in Table 6) above, project-specific operational emissions of ozone precursor pollutants (ROG and NO_x) and PM were found to be less-than-significant without mitigation. As discussed under Impact 7 above, the project would be consistent with clean air planning efforts and would not conflict with or obstruct their implementation. Therefore, the project contribution to cumulative regional air quality impacts would be *less-than-significant*.

Local Air Pollutant Emissions

Construction period PM₁₀ emissions would be localized. With implementation of SJVAPCD Regulation VIII and dust control requirements imposed by the county, construction period impacts would be less-than-significant. Additional construction that may occur in the area concurrently with the project would be subject to SJVAPCD Regulation VIII, as well as the District’s ISR Rule 9510, which would reduce cumulative construction emissions to less-than-significant levels. Operational emissions would also be less-than-significant with County-imposed measures to control fugitive dust emissions.

In summary, the cumulative project impacts to localized air quality impacts would be *less-than-significant*.

Cumulative Toxic Air Pollutant Impacts

As discussed above, the project would not have a significant impact related to community health risk from project construction or operation and, therefore, would also not contribute to a cumulatively considerable community risk impact in the project vicinity.

Summary of Cumulative Contribution to Air Quality Impacts

The project would not contribute to local cumulative air quality impacts with respect to any standard or significance criteria. In addition, the project’s contribution to cumulative regional air quality impacts would be less than considerable. In conclusion, the project would not have a cumulatively significant impact on air quality.

Greenhouse Gas Emissions

GHG emissions in terms of CO₂e are low for both the construction and operational phases of the proposed project. A photovoltaic power production facility inherently represents “best performance standards” as compared to other typical forms of electrical power production, i.e., such as fossil-fueled power plants. The operation of the project would provide electric power with negligible GHG emissions over the life of the project compared with traditional fossil-fueled power plants. Therefore, the project is consistent with State GHG policy to encourage solar power development as a means to reduce fossil fuels and GHG emissions and improve air quality. GHG Emissions are reported in Table 7 for both construction and operation of the project.

TABLE 7 Annual Project GHG Emissions in Metric Tons Per Year

Phase	GHG Emissions
2022 Construction Activity	195
2024 Full Operation	12

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<http://www.valleyair.org/rules/currnrules/r9510-a.pdf>

Construction - On-Site Equipment Usage

Equipment	Estimated Usage		
	Units	Hours/Day (5 days/week)	Days per Unit 250 MW SGF
Phase 1 – Site Preparation			
Water Trucks	1	7	20
Bulldozer (Crawler Tractor)	1	7	10
Graders	2	7	20
Compactors	2	7	20
Skid Loader	1	7	5
Front End Loaders	2	7	10
Phase 2 – Installation of Solar Arrays			
Water Trucks	1	7	60
Tractors – post drivers	3	7	60
Forklifts	1	7	50
Trenchers	1	4	60
Pickup Trucks	1	7	60
ATVs	2	7	60
Phase 3 – Installation of Inverters, Transformers, Substation, Interconnection			
Water Trucks	1	7	20
Forklifts	1	4	10
Trenchers	1	4	4
Backhoes	1	4	5
Cranes	1	2	2

CalEEMod Inputs		
Qty	Average hrs/phas	Days
1	2.3	30
2	4.7	30
2	4.7	30
1	1.2	30
2	2.3	30
1	7.0	60
3	7.0	60
1	5.8	60
1	4.0	60
1	7.0	60
2	7.0	60
1	4.7	30
1	1.3	30
1	0.5	30
1	0.7	30
1	0.1	30

included in vehicle trips

included in vehicle trips

included in vehicle trips

included in vehicle trips

included in vehicle trips

included in vehicle trips

Utica Ave SOLAR - OPERATIONAL VEHICLE AND EQUIPMENT USE (vers 10/16/20)					
Equipment and Vehicle Usage During SolarFacility Operations and Maintenance					
Equipment	Estimated Usage (Annual)			hours/day	mi/trip
	Units	Hours/Day/Unit	Total Days/Unit/Year		
All-Terrain Vehicle (ATV)	0	0	0	0.0	
Tractor	0	0	0	0.0	
Portable Generator	0	0	0	0.0	
Portable Water Trailer w/Pump	0	0	0	0.0	
Vehicles	Units	Daily Miles/ Unit	Total Days/ Unit/Year	hours/day	mi/trip
Auto	1	60	260	520	15600
Pickup or delivery truck	1	60	260	520	15600
				1040	31200
				2.85	30.0
				trip/day	mi/trip
				99% on paved	

Attachment 2: CalEEMod Output

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Utica Avenue Solar Project
Kings County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	25.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	37
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Project Description
 Construction Phase - 3 Phases per schedule/equipment list
 Off-road Equipment - per schedule/equipment list
 Off-road Equipment - per schedule/equipment list
 Off-road Equipment - per schedule/equipment list
 Grading - default
 Trips and VMT - per schedule/equipment list - includes water trucks for ea phase
 On-road Fugitive Dust - Most road travel on highway (0.03)
 Vehicle Trips - Based on general maintenance
 Construction Off-road Equipment Mitigation - BMPs for roads

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	370.00	30.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	5/6/2024	12/13/2022
tblConstructionPhase	PhaseEndDate	12/5/2022	12/12/2022
tblConstructionPhase	PhaseStartDate	12/6/2022	11/2/2022
tblConstructionPhase	PhaseStartDate	10/18/2022	9/20/2022
tblConstructionPhase	PhaseStartDate	10/4/2022	9/6/2022
tblLandUse	LotAcreage	0.00	25.00
tblOffRoadEquipment	HorsePower	247.00	203.00
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.40	0.36
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.30
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	76.20
tblOnRoadDust	HaulingPercentPave	100.00	87.30
tblOnRoadDust	HaulingPercentPave	100.00	86.70
tblOnRoadDust	RoadSiltLoading	0.10	0.03

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOnRoadDust	RoadSiltLoading	0.10	0.03
tblOnRoadDust	RoadSiltLoading	0.10	0.03
tblOnRoadDust	VendorPercentPave	100.00	99.50
tblOnRoadDust	VendorPercentPave	100.00	99.60
tblOnRoadDust	VendorPercentPave	100.00	99.30
tblOnRoadDust	WorkerPercentPave	100.00	99.60
tblOnRoadDust	WorkerPercentPave	100.00	99.60
tblOnRoadDust	WorkerPercentPave	100.00	99.10
tblTripsAndVMT	HaulingTripLength	20.00	32.00
tblTripsAndVMT	HaulingTripLength	20.00	39.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	80.00
tblTripsAndVMT	HaulingTripNumber	0.00	218.00
tblTripsAndVMT	HaulingTripNumber	0.00	150.00
tblTripsAndVMT	VendorTripLength	7.30	55.00
tblTripsAndVMT	VendorTripLength	7.30	60.00
tblTripsAndVMT	VendorTripLength	7.30	35.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.80	65.00
tblTripsAndVMT	WorkerTripLength	10.80	65.00
tblTripsAndVMT	WorkerTripLength	10.80	28.00
tblTripsAndVMT	WorkerTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	60.00
tblTripsAndVMT	WorkerTripNumber	20.00	30.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CW_TL	9.50	30.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.85
tblVehicleTrips	SU_TR	0.00	2.85
tblVehicleTrips	WD_TR	0.00	2.85

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					
2022	0.0784	0.5830	0.7195	2.1100e-003	2.5478	0.0237	2.5715	0.2694	0.0218	0.2913	0.0000	192.4685	192.4685	0.0218	7.0700e-003	195.1215
Maximum	0.0784	0.5830	0.7195	2.1100e-003	2.5478	0.0237	2.5715	0.2694	0.0218	0.2913	0.0000	192.4685	192.4685	0.0218	7.0700e-003	195.1215

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					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	0.0784	0.5830	0.7195	2.1100e-003	1.6009	0.0237	1.6246	0.1708	0.0218	0.1927	0.0000	192.4684	192.4684	0.0218	7.0700e-003	195.1214
Maximum	0.0784	0.5830	0.7195	2.1100e-003	1.6009	0.0237	1.6246	0.1708	0.0218	0.1927	0.0000	192.4684	192.4684	0.0218	7.0700e-003	195.1214

	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	0.00	0.00	0.00	0.00	37.16	0.00	36.82	36.60	0.00	33.86	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-6-2022	9-30-2022	0.2176	0.2176
		Highest	0.2176	0.2176

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728
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	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728
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	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 - Site Preparation	Site Preparation	9/6/2022	10/17/2022	5	30	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2	Phase 2 - Installation of Solar Arrays	Grading	9/20/2022	12/12/2022	5	60
3	Phase 3 - Installation of Inverters,...	Building Construction	11/2/2022	12/13/2022	5	30

Acres of Grading (Site Preparation Phase): 39.56

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 - Site Preperation	Rubber Tired Loaders	2	2.30	203	0.36
Phase 1 - Site Preperation	Crawler Tractors	1	2.30	212	0.43
Phase 3 - Installation of Inverters,...	Cranes	1	1.00	23	0.29
Phase 1 - Site Preperation	Graders	2	4.70	187	0.41
Phase 2 - Installation of Solar Arrays	Excavators	0	0.00	158	0.38
Phase 3 - Installation of Inverters,...	Forklifts	1	1.30	89	0.20
Phase 3 - Installation of Inverters,...	Generator Sets	0	0.00	84	0.74
Phase 2 - Installation of Solar Arrays	Graders	0	0.00	187	0.41
Phase 1 - Site Preperation	Crawler Tractors	2	4.70	212	0.43
Phase 1 - Site Preperation	Skid Steer Loaders	1	1.20	65	0.37
Phase 2 - Installation of Solar Arrays	Forklifts	1	5.80	89	0.20
Phase 2 - Installation of Solar Arrays	Trenchers	1	4.00	78	0.50
Phase 2 - Installation of Solar Arrays	Rubber Tired Dozers	0	0.00	247	0.40
Phase 1 - Site Preperation	Rubber Tired Dozers	0	0.00	203	0.36
Phase 2 - Installation of Solar Arrays	Scrapers	0	0.00	367	0.48
Phase 3 - Installation of Inverters,...	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Phase 2 - Installation of Solar Arrays	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 1 - Site Preperation	Tractors/Loaders/Backhoes	0	0.00	97	0.37

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase 3 - Installation of Inverters,...	Welders	0	0.00	46	0.45
Phase 3 - Installation of Inverters,...	Trenchers	1	1.00	78	0.50

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
Phase 3 - Installation of Inverters	4	40.00	1.00	80.00	65.00	55.00	32.00	LD_Mix	HDT_Mix	HHDT
Phase 2 - Installation of Solar Arrays	5	60.00	1.00	218.00	65.00	60.00	39.00	LD_Mix	HDT_Mix	HHDT
Phase 1 - Site Preparation	8	30.00	1.00	150.00	28.00	35.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Phase 1 - Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0210	0.0000	0.0210	2.2600e-003	0.0000	2.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0207	0.2521	0.0973	3.5000e-004		8.8500e-003	8.8500e-003		8.1500e-003	8.1500e-003	0.0000	30.4547	30.4547	9.8500e-003	0.0000	30.7009
Total	0.0207	0.2521	0.0973	3.5000e-004	0.0210	8.8500e-003	0.0298	2.2600e-003	8.1500e-003	0.0104	0.0000	30.4547	30.4547	9.8500e-003	0.0000	30.7009

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.8000e-004	0.0163	2.7500e-003	7.0000e-005	0.3962	1.8000e-004	0.3964	0.0398	1.7000e-004	0.0399	0.0000	6.4506	6.4506	2.0000e-005	1.0100e-003	6.7533
Vendor	1.3000e-004	3.3200e-003	6.6000e-004	1.0000e-005	5.0000e-003	4.0000e-005	5.0400e-003	5.7000e-004	4.0000e-005	6.1000e-004	0.0000	1.3826	1.3826	1.0000e-005	2.0000e-004	1.4423
Worker	2.7900e-003	2.3700e-003	0.0277	8.0000e-005	0.1512	5.0000e-005	0.1513	0.0161	4.0000e-005	0.0162	0.0000	7.5377	7.5377	1.6000e-004	1.9000e-004	7.5992
Total	3.3000e-003	0.0220	0.0311	1.6000e-004	0.5525	2.7000e-004	0.5527	0.0565	2.5000e-004	0.0567	0.0000	15.3709	15.3709	1.9000e-004	1.4000e-003	15.7948

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					8.1800e-003	0.0000	8.1800e-003	8.8000e-004	0.0000	8.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0207	0.2521	0.0973	3.5000e-004		8.8500e-003	8.8500e-003		8.1500e-003	8.1500e-003	0.0000	30.4546	30.4546	9.8500e-003	0.0000	30.7009
Total	0.0207	0.2521	0.0973	3.5000e-004	8.1800e-003	8.8500e-003	0.0170	8.8000e-004	8.1500e-003	9.0300e-003	0.0000	30.4546	30.4546	9.8500e-003	0.0000	30.7009

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.8000e-004	0.0163	2.7500e-003	7.0000e-005	0.2432	1.8000e-004	0.2434	0.0244	1.7000e-004	0.0246	0.0000	6.4506	6.4506	2.0000e-005	1.0100e-003	6.7533
Vendor	1.3000e-004	3.3200e-003	6.6000e-004	1.0000e-005	3.2300e-003	4.0000e-005	3.2700e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	1.3826	1.3826	1.0000e-005	2.0000e-004	1.4423
Worker	2.7900e-003	2.3700e-003	0.0277	8.0000e-005	0.0958	5.0000e-005	0.0958	0.0103	4.0000e-005	0.0104	0.0000	7.5377	7.5377	1.6000e-004	1.9000e-004	7.5992
Total	3.3000e-003	0.0220	0.0311	1.6000e-004	0.3422	2.7000e-004	0.3425	0.0351	2.5000e-004	0.0354	0.0000	15.3709	15.3709	1.9000e-004	1.4000e-003	15.7948

3.3 Phase 2 - Installation of Solar Arrays - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.2060	0.2406	3.3000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	28.9275	28.9275	9.3600e-003	0.0000	29.1614
Total	0.0209	0.2060	0.2406	3.3000e-004	0.0000	0.0122	0.0122	0.0000	0.0113	0.0113	0.0000	28.9275	28.9275	9.3600e-003	0.0000	29.1614

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6.9000e-004	0.0301	4.6600e-003	1.3000e-004	0.7149	3.3000e-004	0.7152	0.0718	3.2000e-004	0.0721	0.0000	12.0927	12.0927	4.0000e-005	4.9000e-003	12.6602
Vendor	4.2000e-004	0.0111	2.0600e-003	5.0000e-005	0.0100	1.5000e-004	0.0102	1.2300e-003	1.5000e-004	1.3800e-003	0.0000	4.7048	4.7048	2.0000e-005	6.8000e-004	4.9078
Worker	0.0225	0.0206	0.2444	7.5000e-004	0.6305	4.3000e-004	0.6309	0.0725	4.0000e-004	0.0729	0.0000	69.5612	69.5612	1.1700e-003	1.6500e-003	70.0822
Total	0.0236	0.0619	0.2511	9.3000e-004	1.3554	9.1000e-004	1.3563	0.1455	8.7000e-004	0.1464	0.0000	86.3587	86.3587	1.2300e-003	4.2300e-003	87.6501

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.2060	0.2406	3.3000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	28.9275	28.9275	9.3600e-003	0.0000	29.1614
Total	0.0209	0.2060	0.2406	3.3000e-004	0.0000	0.0122	0.0122	0.0000	0.0113	0.0113	0.0000	28.9275	28.9275	9.3600e-003	0.0000	29.1614

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6.9000e-004	0.0301	4.6600e-003	1.3000e-004	0.4389	3.3000e-004	0.4392	0.0441	3.2000e-004	0.0444	0.0000	12.0927	12.0927	4.0000e-005	1.9000e-003	12.6602
Vendor	4.2000e-004	0.0111	2.0600e-003	5.0000e-005	6.6900e-003	1.5000e-004	6.8400e-003	8.6000e-004	1.5000e-004	1.0100e-003	0.0000	4.7048	4.7048	2.0000e-005	6.8000e-004	4.9078
Worker	0.0225	0.0206	0.2444	7.5000e-004	0.4156	4.3000e-004	0.4160	0.0485	4.0000e-004	0.0489	0.0000	69.5612	69.5612	1.1700e-003	1.6500e-003	70.0822
Total	0.0236	0.0619	0.2511	9.3000e-004	0.8611	9.1000e-004	0.8621	0.0935	8.7000e-004	0.0943	0.0000	86.3587	86.3587	1.2300e-003	4.2300e-003	87.6501

3.4 Phase 3 - Installation of Inverters,... - 2022

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	1.9700e-003	0.0199	0.0155	3.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	2.3492	2.3492	7.6000e-004	0.0000	2.3682
Total	1.9700e-003	0.0199	0.0155	3.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	2.3492	2.3492	7.6000e-004	0.0000	2.3682

Unmitigated Construction Off-Site

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	2.1000e-004	9.2000e-003	1.5200e-003	4.0000e-005	0.4032	1.0000e-004	0.4033	0.0404	1.0000e-004	0.0405	0.0000	3.6620	3.6620	1.0000e-005	5.8000e-004	3.8338
Vendor	2.0000e-004	5.1100e-003	9.6000e-004	2.0000e-005	5.6700e-003	7.0000e-005	5.7400e-003	6.7000e-004	7.0000e-005	7.4000e-004	0.0000	2.1584	2.1584	1.0000e-005	3.1000e-004	2.2516
Worker	7.4800e-003	6.8800e-003	0.0815	2.5000e-004	0.2102	1.4000e-004	0.2103	0.0242	1.3000e-004	0.0243	0.0000	23.1871	23.1871	3.9000e-004	5.5000e-004	23.3607
Total	7.8900e-003	0.0212	0.0839	3.1000e-004	0.6190	3.1000e-004	0.6193	0.0652	3.0000e-004	0.0655	0.0000	29.0075	29.0075	4.1000e-004	1.4400e-003	29.4461

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	1.9700e-003	0.0199	0.0155	3.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	2.3492	2.3492	7.6000e-004	0.0000	2.3682
Total	1.9700e-003	0.0199	0.0155	3.0000e-005		1.1200e-003	1.1200e-003		1.0300e-003	1.0300e-003	0.0000	2.3492	2.3492	7.6000e-004	0.0000	2.3682

Mitigated Construction Off-Site

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	2.1000e-004	9.2000e-003	1.5200e-003	4.0000e-005	0.2472	1.0000e-004	0.2473	0.0247	1.0000e-004	0.0248	0.0000	3.6620	3.6620	1.0000e-005	5.8000e-004	3.8338
Vendor	2.0000e-004	5.1100e-003	9.6000e-004	2.0000e-005	3.7400e-003	7.0000e-005	3.8100e-003	4.6000e-004	7.0000e-005	5.3000e-004	0.0000	2.1584	2.1584	1.0000e-005	3.1000e-004	2.2516
Worker	7.4800e-003	6.8800e-003	0.0815	2.5000e-004	0.1385	1.4000e-004	0.1387	0.0162	1.3000e-004	0.0163	0.0000	23.1871	23.1871	3.9000e-004	5.5000e-004	23.3607
Total	7.8900e-003	0.0212	0.0839	3.1000e-004	0.3894	3.1000e-004	0.3897	0.0414	3.0000e-004	0.0417	0.0000	29.0075	29.0075	4.1000e-004	1.4400e-003	29.4461

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	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728
Unmitigated	3.3000e-003	9.1500e-003	0.0442	1.2000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.1000e-004	3.2400e-003	0.0000	11.5814	11.5814	4.3000e-004	6.1000e-004	11.7728

4.2 Trip Summary Information

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

5.3 Energy by Land Use - Electricity

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005	2.0000e-005

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

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

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

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
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Utica Avenue Solar Project - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

APPENDIX B

Biological Resources Report

Prepared by

Live Oak Associates

March 2022



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

UTICA AVENUE SOLAR PROJECT BIOLOGICAL ASSESSMENT KINGS COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

Rick Hopkins, Principal and Senior Conservation Biologist/Ecologist
Katrina Krakow, M.S., Sr. Project Manager and Staff Ecologist

Prepared for

Bert Verrips, AICP
Environmental Consulting Service
11942 Red Hill Avenue
Santa Ana, CA 92705

March 11, 2022

PN 2654-01

Oakhurst: P.O. Box 2697 • 39930 Sierra Way, Suite B • Oakhurst, CA 93644 • Phone: (559) 642-4880 • Fax: (559) 642-4883

San Jose: 6840 Via Del Oro, Suite 220 • San Jose, CA 95119 • Phone: (408) 224-8300

Truckee: P.O. Box 8810 • Truckee, CA 96161 • Phone: (530) 214-8947

South Lake Tahoe: P.O. Box 7314 • South Lake Tahoe, CA 96158 • Phone: (408) 281-5885

EXECUTIVE SUMMARY

Live Oak Associates, Inc., (LOA) conducted an investigation of the biological resources of the Utica Solar project site (“Project Site”, “Site”) in Kings County, California.

LOA evaluated likely impacts to biological resources resulting from development of an approximately 29.5-acre photo-voltaic solar energy project on the Utica Avenue Solar Project site. The Project Site is in southern Kings County southeast of Kettleman City along Utica Avenue. On January 13 and February 23, 2022, Live Oak Associates (LOA) conducted site visits to assess 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 consists of ruderal agricultural lands within a region dominated by agricultural lands. An inactive agricultural canal is adjacent and to the north of the site which parallels Utica Avenue. The Project Site does not provide suitable habitat for locally occurring special-status plant or animal species. However, several special status animal species may occur onsite. Potentially suitable habitat was found for 12 special status animal species that potentially occur as regular foragers or residents of the Project Site. These include the western snowy plover, mountain plover, Swainson’s hawk, northern harrier, white-tailed kite, golden eagle, western burrowing owl, Townsend’s big-eared bat, pallid bat, California mastiff bat, American badger, and San Joaquin kit fox. Additional impacts to Swainson’s hawks will be mitigated through avoidance of active nests found during required preconstruction surveys; and if active nests are found onsite or on adjacent lands, additional mitigation for loss of habitat may be required. Similar avoidance and preconstruction surveys will reduce impacts to western snowy plover, mountain plover, Swainson’s hawk, northern harrier, white-tailed kite, golden eagle, western burrowing owl, and other nesting birds protected by the federal Migratory Bird Treaty Act.

While there are no reported sightings of San Joaquin kit fox or American badgers within or near the Project Site, and no evidence of kit fox or badger was found during LOA’s field surveys, impacts to kit fox and badger are potentially significant. Prior to the construction of the solar development, preconstruction surveys will be conducted. Preconstruction surveys and avoidance measures will reduce impacts to kit fox and badgers from direct construction related mortality to a less-than-significant level. Impacts to wildlife movements and movement corridors will be minimized through the construction of wildlife-friendly fencing. Waters of the U.S. are absent from the Project Site.

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1 INTRODUCTION

Live Oak Associates, Inc. (LOA) has prepared the following report. This report describes the biotic resources of the proposed approximately 29.5-acre Utica Solar project site (“Project Site, site”) evaluates likely impacts to biological resources resulting from the construction of a solar project on the project site.

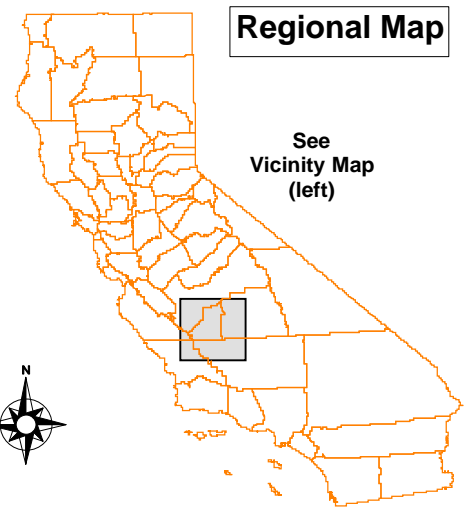
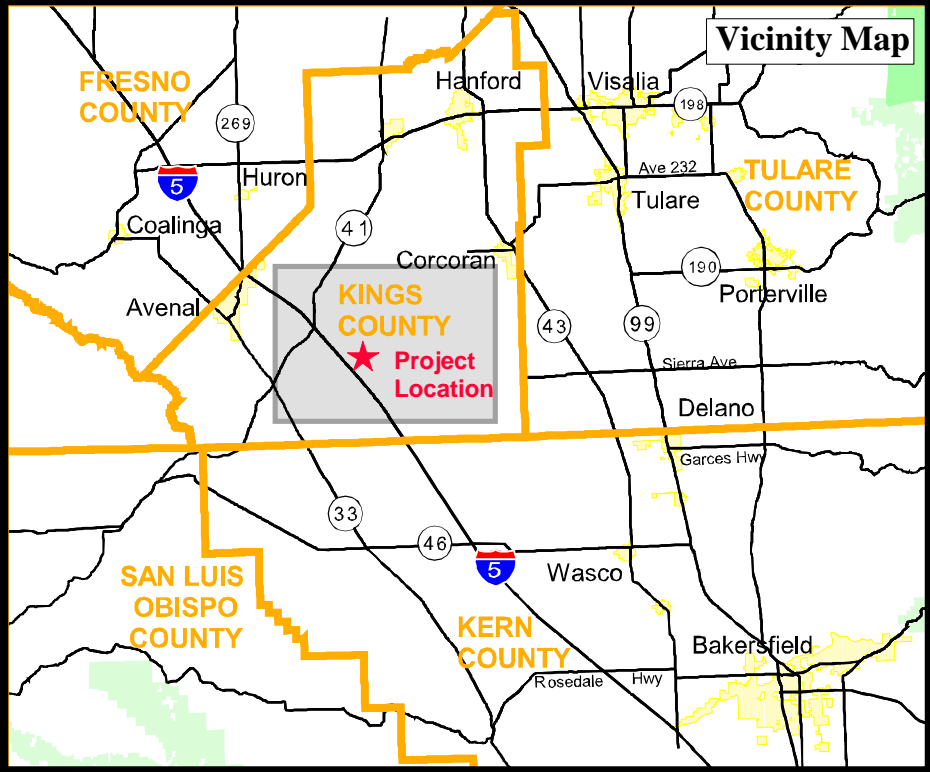
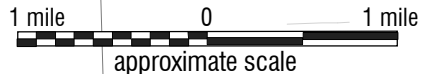
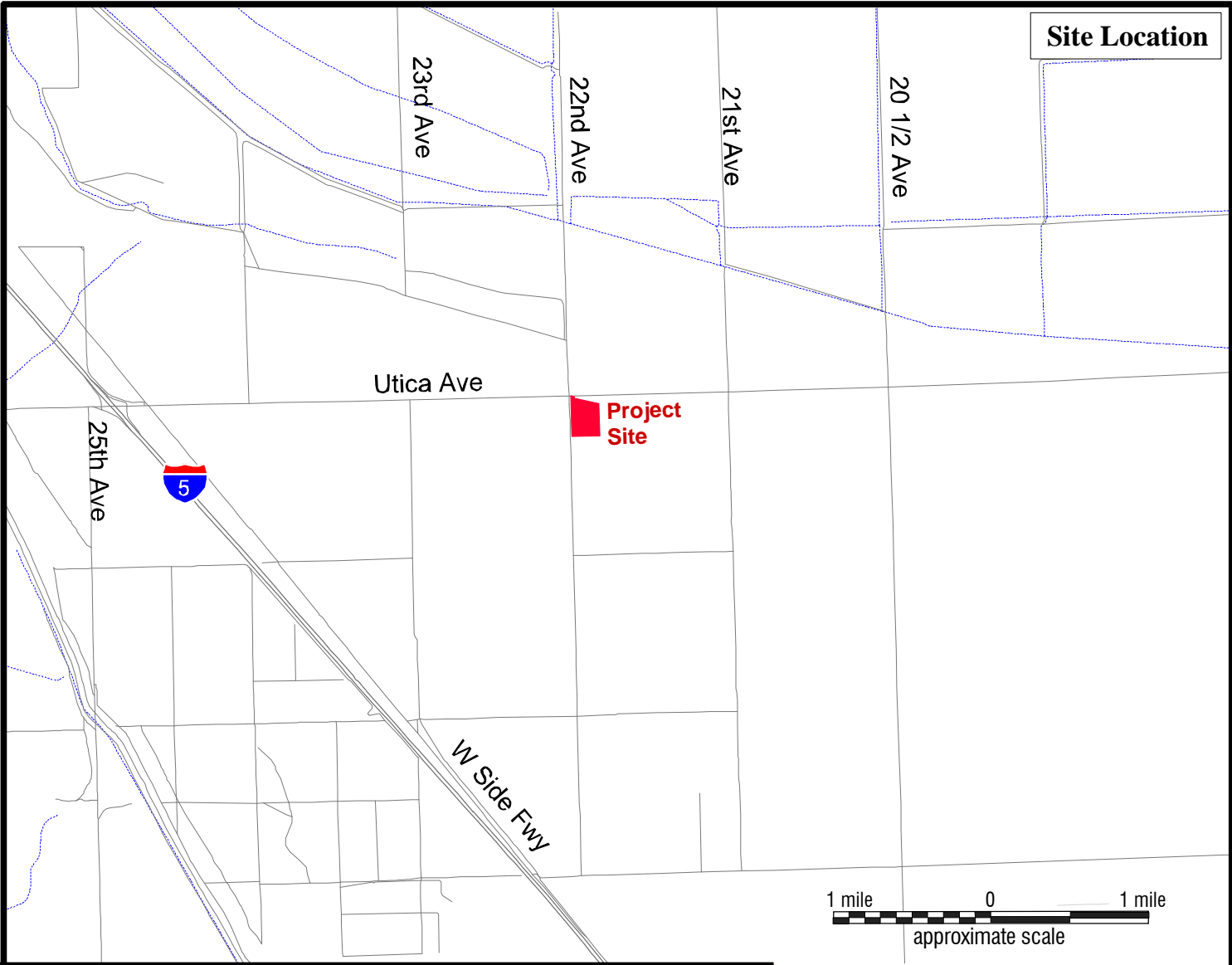
The Utica Solar Project Site is in Kings County east of I-5 and south of Utica Avenue and east of unimproved 22nd Avenue alignment (Figure 1). The Project Site is located within the Dudley Ridge U.S. Geological Survey (USGS) 7.5-minute quadrangle.


The Utica Solar project site is relatively flat with site elevations ranging from a high of 218 feet (66 meters) above mean sea level (amsl) at the southwest corner of the site to a low of 212 feet amsl (65 meters) at the northeast corner. Utica Avenue runs along the northern edge of the site and the unimproved 22nd Avenue alignment runs along the western edge of the site. A canal runs along northern and southern boundary as well. The site is currently fallow and supports a ruderal field with a canal and power poles along Utica Avenue to the north. There are no buildings, sheds, or other structures on the Utica Solar project site.

1.1 PROJECT DESCRIPTION

Utica Solar Project

The Utica Avenue Solar Project is a planned utility-scale solar PV facility with a generating capacity of 3 Megawatts (MW). The Utica Avenue Solar project will be constructed on an approximately 29.5-acre site located on the south side of Utica Avenue in southern Kings County, approximately 2.8 miles east of Interstate 5. The solar facility will consist of arrays of solar modules mounted on horizontal trackers, along with associated inverters which will convert the DC generation to AC current. The project would include a single 3 MW transformer which would step up the generation voltage to 12-kV distribution voltage to be conveyed to the



 Live Oak Associates, Inc.		
Utica Avenue Solar B.E. Site / Vicinity Map		
Date	Project #	Figure #
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existing PG&E power distribution line running along the south side of Utica Avenue. The project will also include 3 MW of battery storage. An approximately 375-foot-long gen-tie line would convey the solar generation from the on-site project switchgear to the Point of Interconnection (POI) with the PG&E system at an existing power pole on the south side of Utica Avenue approximately 115 feet west of the project site. The Utica Avenue Solar Facility is planned to be constructed over a three-month period in late 2022.

Canal

The proposed project will need to increase the width of an existing dirt berm that occurs in an extant irrigation canal, which runs parallel to Utica Avenue immediately north of the site. This feature would serve as the vehicular access to the property. The berm is expected to be widened by approximately 10 feet.

1.2 REPORT OBJECTIVES

The development of land can 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 California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of Kings County. This report addresses issues related to: 1) sensitive biotic resources occurring within the Utica Avenue Solar Project Site; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies, and the requirements of the California Environmental Quality Act (CEQA). As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources, based on a review of the literature, a search of species databases, and field surveys conducted by LOA over the entire Project Site;
- In addition to species observed to be present within the Project Site, make reasonable inferences about the other biological resources that could occur onsite based on habitat suitability and the proximity of the Project Site to a species' known range;

- Summarize all state and federal natural resource protection laws that may be relevant to development of Solar project within the Project Site;
- Identify and discuss project impacts to biological resources likely to occur within the Project Site within the context of CEQA or any state or federal laws; and
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant impact (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 2022), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. Field survey of the Project Site was conducted on January 13, 2022, by LOA ecologists Nathan Hale and Cristal Romero with a brief follow-up visit on February 23, 2022, by LOA ecologist Robert Shields. During this site visits, the principal land uses of the site were identified, and the constituent plants and animals were noted.

Detailed surveys for sensitive biological resources were not conducted during the site visit, except an initial survey for burrowing owl on the Project Site.

2 EXISTING CONDITIONS

2.1 REGIONAL SETTING

Like most of California, the Central San Joaquin Valley (and the Project Site) experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely rise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the Project Site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain.

The Kings County area of the Central San Joaquin Valley receives water from the Kings River, which historically drained into the Tulare Lake Basin which contained the vast Tulare Lake, which encompassed a large area of Kings County, and the Project Site is near the southern edge of the former Tulare Lake. The Kings River and Tulare Lake contained large areas of riparian, wetland, and aquatic ecosystems that supported large populations of diverse native plants and animals. Under present conditions, the Kings River supports only a fraction of the riparian habitat it once supported, and the aquatic habitat has been greatly degraded from agricultural runoff and irregular flows. In essence, the river currently provides water to a series of distributary channels supplying water to farmland in the region. Tulare Lake has long been drained and converted to farmland and urban uses.

Native upland biotic habitats of the Central San Joaquin Valley once consisted of grassland and shrubland, nearly all of which have been converted to farmland or urban use within the last 50 years or more. Native plant and animal species once abundant in the valley have become locally extirpated or have experienced large reductions in their populations. The native habitat that remains in the region is particularly valuable to native wildlife species including special status species that persist in the region.

The lands surrounding the Project Site consist of agricultural land. The nearest natural habitats to the Project Site are the Kettleman Hills approximately four miles to the west of the Project Site.

2.2 PROJECT SITE

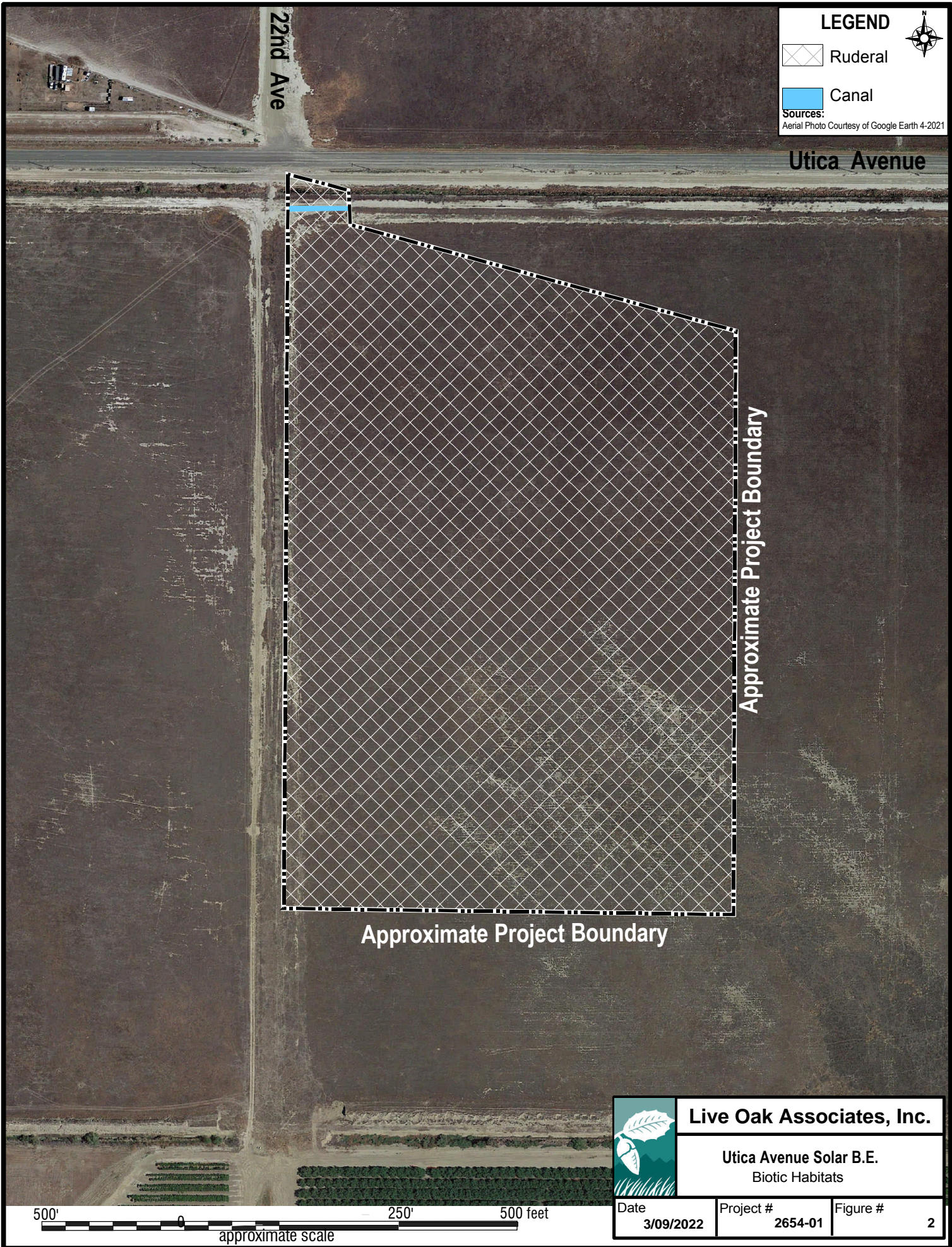
The approximately 29.5-acre Project Site is located at the southeastern intersection of Utica Avenue and unimproved 22nd Avenue alignment in King's County. The Utica Avenue Solar Project site is relatively flat with site elevations ranging from a high of 218 feet (66 meters) above mean sea level (amsl) at the southwest corner of the site to a low of 212 feet amsl (65 meters) at the northeast corner. The project site is in the Dudley Ridge U.S. Geological Survey (USGS) quadrangle. The site is currently fallow and supports a ruderal field with a canal and power poles along Utica Avenue to the north.

The Utica Avenue Solar Project is a planned utility-scale solar PV facility with a generating capacity of 3 Megawatts (MW).

Two soil types occur on the Project Site: 1) Milham sandy loam, silty substratum and 2) Rambla loamy sand, drained (NRCS Web Soil Survey 2022). Both soils have deep soils and are moderately well to well drained soils. In addition, Rambla loamy sand, drained is considered hydric. Hydric soils are defined as saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions they support hydrophytic vegetation. Due to ongoing agricultural disturbance; however, no hydric vegetation was observed on the site except for within the onsite canal segment.

2.3 BIOTIC HABITATS/LAND USES

The entire Utica Avenue Solar Project Site consists of ruderal agricultural lands with a canal along the northern boundary (Figure 2).



LEGEND



Ruderal



Canal

Sources:

Aerial Photo Courtesy of Google Earth 4-2021



22nd Ave

Utica Avenue

Approximate Project Boundary

Approximate Project Boundary



Live Oak Associates, Inc.

Utica Avenue Solar B.E.
Biotic Habitats



Date	Project #	Figure #
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2.3.1 Ruderal Field

Habitat on the site consists of a ruderal field, previously grazed by sheep, with a canal and power poles along Utica Avenue to the north. Soils of the site appear to have been managed in the past, possibly through discing.

Plants onsite were notably dominated by stork's bill (*Erodium* sp.); other major species onsite included unidentified annual grass seedlings, sunflower (*Helianthus annuus*), and Russian thistle (*Salsola tragus*).

Animal species observed during the survey include the red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), mountain bluebird (*Sialia currucoides*), horned lark (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), and white-crowned sparrow (*Zonotrichia leucophrys*). Most of these bird species were observed flying over the site. Additional animal sign that was observed included small mammal burrows; burrows and scat were consistent with Heerman's kangaroo rat (*Dipodomys heermanni*), and burrows, scat, and tracks of coyote (*Canis latrans*). There was no evidence of burrowing owls on the site, and the nearest potential nesting habitat for tree-nesting raptors would be the power lines along Utica Avenue or a line of trees to the north of Utica Avenue.

2.3.2 Onsite/Off-site Canal

An inactive irrigation canal runs through the northwest corner of the Project Site along the south side of Utica Avenue. This canal has been prevented from receiving upstream flow by a large earthen berm which blocks water from coming into the canal just off-site to the west, and upstream, of the site. This canal serves to collect stormwater during portions of the year. The canal contained shallow water during the January 2022 site visit following the heavy rains of December 2021. A significant amount of Russian thistle skeletons were observed along the banks of the canal, along with additional Russian thistle skeletons which likely rolled into the canal following detachment from the soil elsewhere, collected within the canal. A few small tamarisks (*Tamarisk* sp.) were noted but a riparian tree canopy was absent. Some unidentified grasses were also noted in and along the canal.

2.4 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. In the San Joaquin Valley, which lacks many of the more pronounced topographic features found in the surrounding foothills, wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks. In areas of intense farming, these existing linear features tend to be used disproportionately for movement when compared to the adjacent, intensely farmed lands. While actively farmed fields are not barriers in themselves, they are used less often than the linear features that cut through them.

The intense farming throughout the San Joaquin Valley over the last century has long altered the more traditional regional movement patterns of wildlife. While regionally occurring wildlife does, in fact, move across the broad range of the Valley, they do so less effectively than they once did, relying more extensively on various linear features such as canals, ditches and creeks. Regionally, the nearest areas believed to provide for regional wildlife movement include areas in the surrounding Sierra and inner coast range foothills that have not been substantially altered.

The Project Site consists of a ruderal field adjacent to canal habitat. Canals and ditches adjacent to the Project Site can function as movement corridors for the regular home range or dispersal movements of native wildlife, including special status species. The USFWS' *Recovery Plan for Upland Species of the San Joaquin Valley* (Recovery Plan) does not show movement corridors within or near the Project Site. The Recovery Plan shows the foothills to the west as a north-south movement corridor (USFWS 1998).

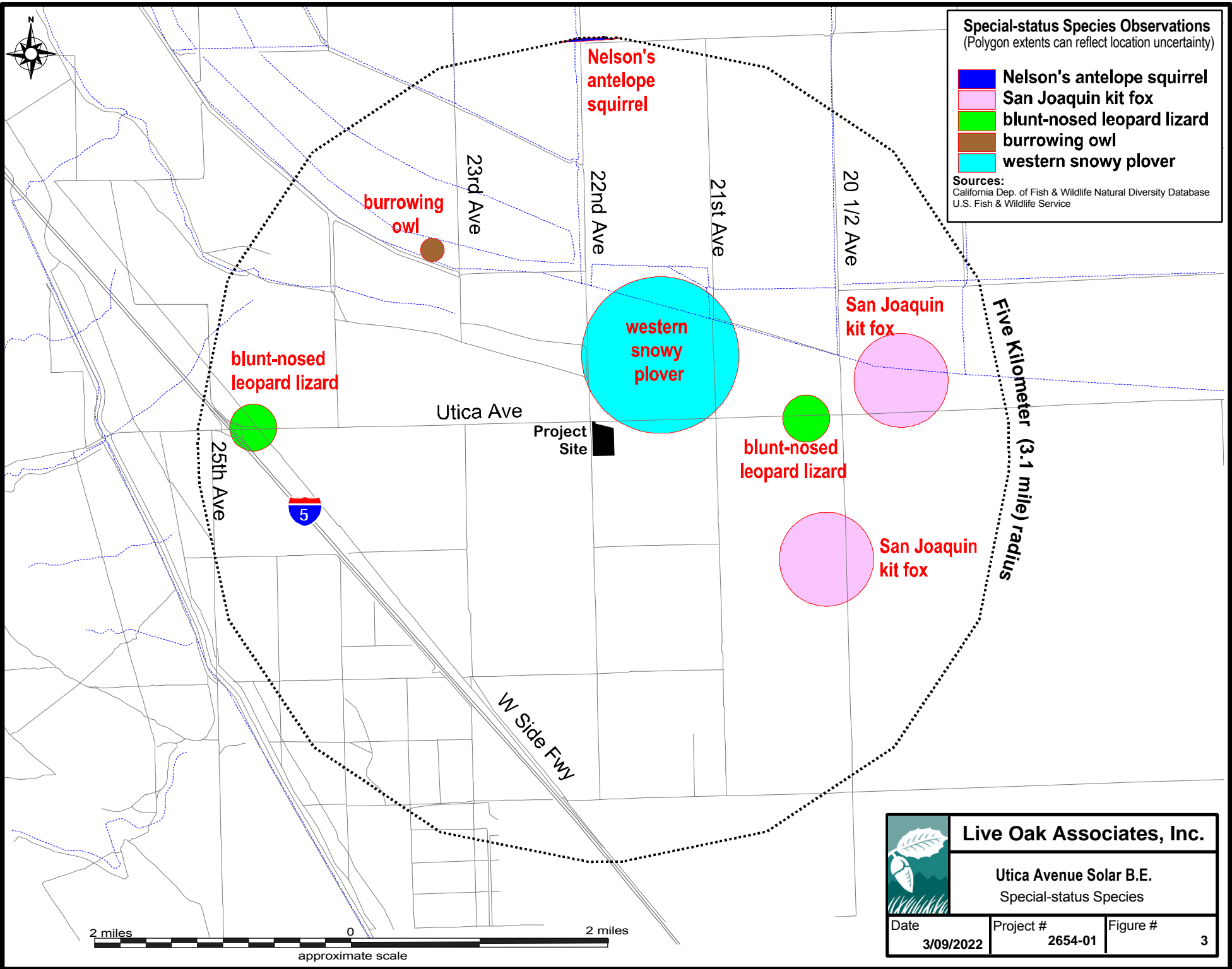
2.5 SPECIAL STATUS PLANTS AND ANIMALS

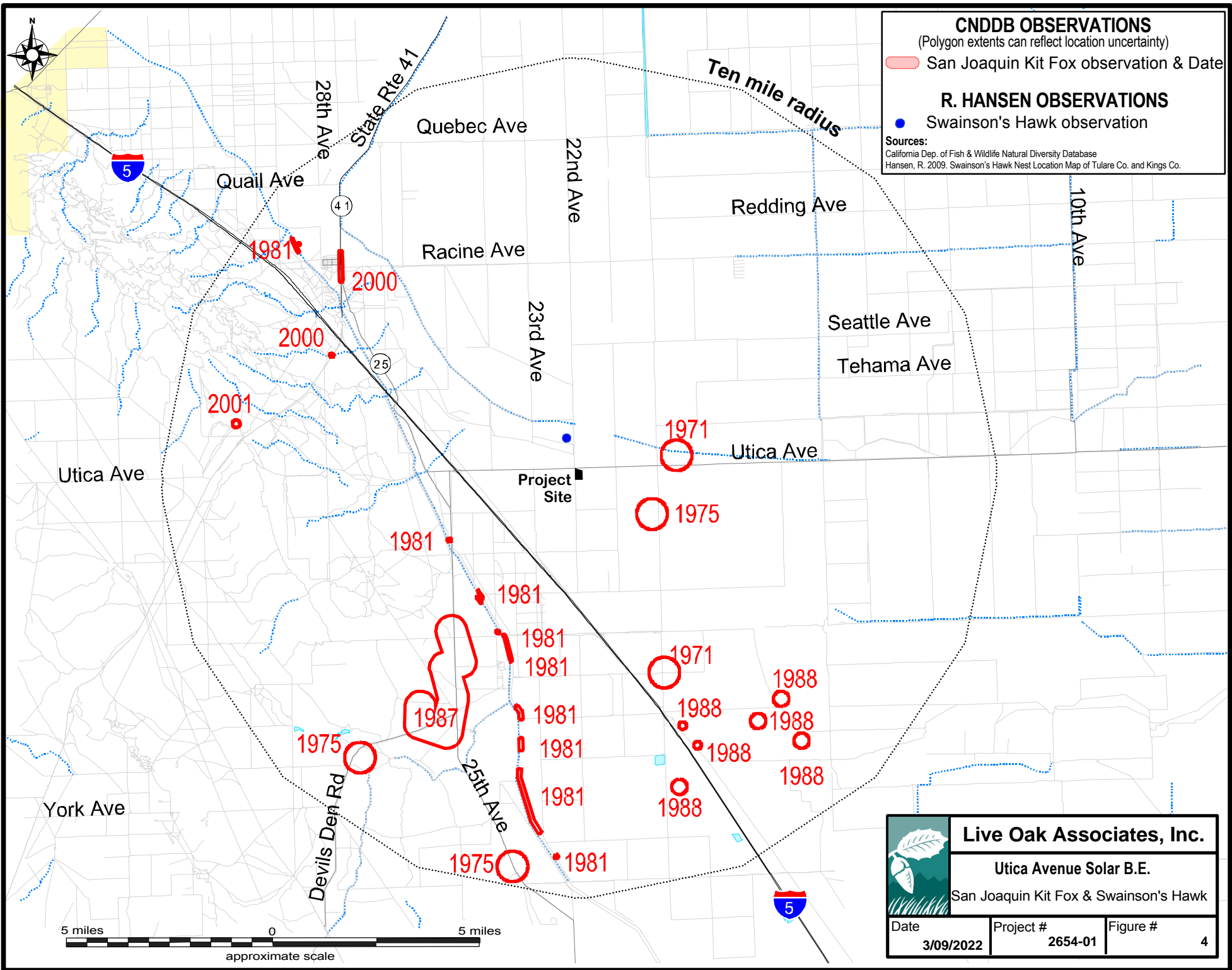
Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to

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 2022). Collectively, these plants and animals are referred to as “special status species”.

Several special status plants and animals occur in the vicinity of the Project Site (Figures 3 and 4). These species, and their potential to occur in the Project Site, are listed in Table 2 in the following pages. Sources of information for this table included *California Amphibian and Reptile Species of Special Concern* (Thomson et.al. 2016), *California Bird Species of Special Concern* (Shuford and Gardall 2008), *California Natural Diversity Data Base* (CDFW 2022), *Endangered and Threatened Wildlife and Plants* (USFWS 2022), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2022), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022). This information was used to evaluate the potential for special status plant and animal species to occur within the Project Site. It is important to note that the California Natural Diversity Data Base (CNDDDB) is a volunteer database.

A search of published accounts for all relevant special status plant and animal species was conducted for the Dudley Ridge USGS 7.5-minute quadrangles within which the Project Site is located, and for the 8 surrounding quadrangles (Kettleman City, Stratford SE, El Rico Ranch, Los Viejos, Hacienda Ranch NW, Avenal Gap, West Camp, and One Tree Well) using the California Natural Diversity Data Base Rarefind 5 (2022).





5 miles 0 5 miles
approximate scale

Live Oak Associates, Inc.
Utica Avenue Solar B.E.
San Joaquin Kit Fox & Swainson's Hawk

Date	Project #	Figure #
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TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

PLANTS (adapted from CDFW 2022 and CNPS 2022)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
San Joaquin woollythreads <i>Monolopia congdonii</i>	FE, CRPR 1B.2	<u>Habitat</u> : Chenopod scrub, valley and foothill grassland. <u>Elevation</u> : 60-800 meters. <u>Blooms</u> : February-May.	Unlikely. All known occurrences in the vicinity of the site are in the Kettleman Hills to the west of the site and also to the west of I-5. Additionally, this species was not observed during the January 2022 survey, and even though the blooming season is February-May, this species would likely have been able to be observed in January.

Species status under the California Rare Plant Rank (CNPS 2022)

Species	Status	Habitat	*Occurrence in the Project Site
Lost Hills crownscale (AKA Lost Hills Saltbush) <i>Atriplex coronate var. vallicola</i>	CNPS 1B.2	<u>Habitat</u> : Chenopod scrub, valley grassland, and vernal pool habitats. <u>Elevation</u> : 50-635 meters. <u>Blooms</u> : April-September.	Absent. This species typically occurs in wetlands such as vernal pools, which were lacking from the site. Chenopod scrub and intact valley grassland habitat was also absent from the site. The soils of the site had been historically managed, and this species is not known to have occurred within three miles of the site.
Recurved larkspur <i>Delphinium recurvatum</i>	CNPS 1B	<u>Habitats</u> : Occurs on alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland. <u>Elevation</u> : 3-750 meters. <u>Blooms</u> : Perennial herb; March-June.	Absent. Habitat for this species is generally lacking. Soils of the site have been historically managed, and this species is not known to occur within eight miles of the site.
Kings gold <i>Tropidocarpum californicum</i>	CRPR 1B	<u>Habitats</u> : Chenopod scrub. <u>Elevation</u> : 65-180 meters. <u>Blooms</u> : Annual herb; Februar-March.	Absent. Chenopod scrub is absent from the site. Additionally, this species has not been documented within three miles of the site.

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	Occurs in vernal pools of California.	Absent. Suitable habitat in the form of vernal pools is absent from the Project Site.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	Lives in mature elderberry shrubs of California’s Central Valley and Sierra Foothills.	Absent. Suitable habitat in the form of elderberry shrubs is absent from the Project Site.
Monarch butterfly <i>Danaus plexippus</i>	CCT	Overwinter on the California coast in conifers such as Monterey pine trees or eucalyptus trees. Host plant is the milkweed.	Unlikely. Although the Monarch butterfly may fly through the site and even use milkweed should it occur on the site, this is too far inland and does not support overwintering habitat for this species.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
Delta smelt <i>Hypomesus transpacificus</i>	FT, CT	Euryhaline species found in open waters of bays, tidal rivers, channels, and sloughs occurring in waters with salinity generally less than 10 ppt, and more usually around 2ppt. Spawning occurs in freshwater further upstream. The majority occurs in Sacramento and Solano Counties in California; however, USFWS also indicates occurrences in other counties as well.	Absent. The site is well outside the Delta smelt’s range. The closest potential feature is a canal south of Utica Avenue. This canal does not support flowing water as flows have been blocked upstream of the site.
California tiger salamander <i>Ambystoma californiense</i>	FT, CT	Breeds in vernal pools and stock ponds of central California; adults aestivate in grassland habitats adjacent to the breeding sites.	Absent. No historic or current records of this species are known within the region. Intensively cultivated lands provide unsuitable habitat for this species. The nearest recorded observation of CTS is more than three miles from the site.
California red-legged frog <i>Rana draytonii</i>	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than 4.5‰.	Absent. There is no suitable habitat for this species onsite or in the vicinity of the site. The closest potential feature is a canal south of Utica Avenue. This canal does not support flowing water as flows have been blocked upstream of the site. This species is not known from the valley floor since before 1960.
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. This species’ current range does not extend south of the Mendota Management Unit which is more than 50 miles to the north of the site. The closest potential feature is a canal south of Utica Avenue. This canal does not support flowing water as flows have been blocked upstream of the site.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
Blunt-nosed leopard lizard <i>Gambelia silus</i>	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley from Merced south to Kern County.	Absent. Occurrence # 105 and 106 are in the CNDDDB (on Figure 3), both of which are “presumed extant” in the CNDDDB, however, in the SSA (USFWS 2020) mapped these locations as being “lost to agriculture”. Habitats required by this species are absent from 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.	Possible. Foraging habitat is available throughout the project area. Nesting habitat, however, is absent from the site. Trees of poor suitability to support a SWHA nest exist north of the site. Although the CNDDDB (CDFW 2022) does not have any records for SWHA within 10 miles of the project site, a study by Hanson in 1998 did report a juvenile at a nest in a eucalyptus tree more than a mile north of the site.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FC, CE	Breed in large blocks of riparian habitats, particularly cottonwoods and willows.	Absent. Dense riparian habitat required by this species is absent from the Project Site.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT, CSC	Uses human-made agricultural wastewater ponds and reservoir margins. Breeds on barren to sparsely vegetated ground at alkaline or saline lakes, reservoirs, ponds, and riverine sand bars.	Possible. Breeding and foraging habitat is available on and adjacent to the site. Additionally, the nearest recorded record of the western snowy plover is less than a half-mile from the site (CDFW 2022).
Tricolored Blackbird <i>Agelaius tricolor</i>	CC, CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Unlikely. Foraging habitat for this species is poor on the Project Site, although this species is known to migrate through the region.
Nelson’s antelope squirrel <i>Ammospermophilus nelsoni</i>	CT	Frequents open shrublands and annual grassland habitats.	Absent. Habitats required by this species are absent from the Project Site and surrounding agricultural lands due to intensive agricultural use. The nearest recorded observation is from 1951 and is approximately 3 miles to the north of the site; this was an individual generally mapped to the west side of Tulare Lake, east of Kettleman City (CDFW 2022).

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
Giant kangaroo rat <i>Dipodomys ingens</i>	FE, CE	Inhabits grasslands on gentle slopes generally less than 10°, with friable, sandy-loam soils.	Absent. The nearest known habitat for the giant kangaroo rat is the Kettleman Hills Population Unit, more than four miles to the west of the Project Site; the Species Status Assessment Report for the Giant Kangaroo Rat (USFWS 2020) assigns a “Low” current condition rating to this Population Unit. Therefore, as the surrounding lands have been highly modified by agricultural use, GKR are not expected to occur on the site.
Tipton kangaroo rat <i>Dipodomys nitratooides</i> <i>nitratooides</i>	FE, CE	Inhabits arid land with grassland or salt scrub on level or near-level terrain on the San Joaquin Valley floor with alluvial fan and floodplain soils.	Absent. The site is within the historic distribution of TKR with the current distribution being more than 15 miles to the east of the site. The suitable alkali sink scrub habitat required for this species is not present on or near the site. This species’ distribution occurs mainly on the southern end of the San Joaquin Valley with the project site being near the northernmost edge of this species’ range.
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.	Possible. The site is within the High occurrence category and is approximately four miles from a satellite Recovery Area according to the Species Status Assessment Report for the San Joaquin Kit Fox (USFWS 2020). Therefore, the site has some potential to support SJKF, especially dispersing individuals, as the surrounding lands have been highly modified for agricultural use and, as a result, provide only marginal foraging and breeding habitat for the kit fox. There are no documented sightings of this species on the Project Site, however, there have been 24 documented sightings within a ten-mile radius of the Project Site (see Figure 4), between 1971 and 2001 (CNDDDB 2022). Therefore, kit foxes may occasionally forage within the Project Site, and may use the Project Site for dispersal movements.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Species	Status	Habitat	*Occurrence in the Project Site
Western spadefoot <i>Scaphiopus 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 for breeding are absent from the Project Site.
San Joaquin whipsnake (AKA San Joaquin coachwhip) <i>Masticophis flagellum ruddocki</i>	CSC	Open, dry habitats with little or no tree cover. Found in valley grasslands and saltbush scrub in the San Joaquin Valley.	Unlikely. Habitats required by this species are marginal on the Project Site and the surrounding lands have been influenced by agriculture.
Black tern <i>Chlidonias niger</i>	CSC	Nests in freshwater marshes and rice fields.	Absent. The Project Site is not within the current range of the black tern; therefore, it is not expected to occur onsite, but maybe expected to migrate through the region. In addition, potentially suitable nesting habitat for this species is not present on the site.
Fulvous whistling-duck <i>Dendrocygna bicolor</i>	CSC	Occurs in California as a summer migrant which occurs in freshwater and coastal marshes, including rice fields.	Absent. The site is located just out of this species' range classified as "irregular use"; additionally, potentially suitable habitat for this species is absent from the site. Therefore, while it may be expected to fly over the site from time to time during migration, it is not expected to remain on the site for any great length of time.
Golden Eagle <i>Aquila chrysaetos</i>	CP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Possible. Suitable foraging habitat exists onsite; however, breeding habitat is absent from the site.
Northern harrier <i>Circus cyaneus</i>	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Possible. Foraging habitat exists on the Project Site; however, breeding habitat is absent.
White-tailed kite <i>Elanus leucurus</i>	CP	Open grasslands and agricultural areas throughout central California.	Possible. Suitable foraging habitat occurs for this species within the Project Site; however, breeding habitat is absent.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Species	Status	Habitat	*Occurrence in the Project Site
Mountain plover <i>Charadrius montanus</i>	CSC	Forages in short grasslands and freshly plowed fields of the Central Valley.	Possible. The Project Site provides potential winter foraging habitat for this species; however, the species does not breed in this region.
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.	Possible. Although burrowing owls and their sign were not observed during the 2022 site assessment, potentially suitable habitat for this species is present on the site, therefore, burrowing owls may move onto the site in the future. Additionally, the CNDDDB (CDFW 2022) identified a record of burrowing owl approximately 2 miles from the site.
Olive-sided flycatcher <i>Contopus cooperi</i>	CSC	Breeds in late-successional conifer forests with open canopies.	Absent. The Project Site is not within the current range of the olive-sided flycatcher; therefore, it is not expected to occur onsite, but maybe expected to migrate through the region. In addition, potentially suitable nesting habitat for this species is not present on the site.
Tulare grasshopper mouse <i>Onychomys torridus</i>	CSC	Arid shrubland communities in hot, arid grassland and scrub desert associations. These include blue oak woodlands at 450 m (1476 feet); upper Sonoran subshrub scrub community; alkali sink and mesquite associations on the valley floor; and grasslands associations on the sloping margins of the San Joaquin Valley and Carrizo Plain region.	Absent. Suitable shrubland habitat is not present within the Project. Additionally, the site appears to have been previously disturbed.
Short-nosed kangaroo rat <i>Dipodomys nitratoides brevinasus</i>	CSC	Occur in lighter, powdery soils such as the sandy bottoms and banks of arroyos and other sandy areas with slightly to highly saline soils on gently sloping and rolling low hill-tops with shrubs.	Absent. Habitat in the San Joaquin Valley floor which may have historically been suitable for this species has largely been removed due to intensive agricultural use.
Townsend’s Big-eared bat <i>Corynorhinus townsendii</i>	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	Possible. Suitable foraging habitat for this species is present within the Project Site; however, roosting habitat is absent.
Pallid bat <i>Antrozous pallidus</i>	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	Possible. Suitable foraging habitat for this species is present within the Project Site; however, roosting habitat is absent.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE UTICA SOLAR PROJECT SITE

ANIMALS (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Species	Status	Habitat	*Occurrence in the Project Site
California mastiff bat <i>Eumops perotis ssp. californicus</i>	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	Possible. Suitable foraging habitat for this species is present within the Project Site; however, roosting habitat is absent.
American badger <i>Taxidea taxus</i>	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Possible. No burrows of the size and shape characteristic of this species were observed on the Project Site. It is possible this species may establish burrows within the project site.
Ringtail <i>Bassariscus astutus</i>	CP	Riparian and heavily wooded habitats near water.	Absent. Habitat for this species is absent from the Project Site.

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

Present: Species observed within the Project Site at time of field surveys or during recent past.

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

Possible: Species not observed within the Project Site, but it could occur there from time to time.

Unlikely: Species not observed within the Project Site, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed within the Project Site, 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 Fully Protected |
| CSC | California Species of Special Concern | | |
| CC | California Candidate | | |
| 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 | | |

2.6 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, 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 Wildlife (CDFW), and

the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional discussion of these agencies' roles and responsibilities.

The only hydrologic feature occurring within the study area is an inactive irrigation canal that runs along the site's northern boundary between the main portion of the site and Utica Avenue. The onsite reach of the canal does not receive upstream flows due to a large, earthen berm in the canal immediately upstream of the site. Thus, it only collects and conveys rainwater or runoff from the site and road. This canal is a feature that was constructed in and drains uplands, and it does not replace or relocate a historical water of the U.S., nor does it convey water that would otherwise be considered waters of the U.S. Therefore, it would not be considered a water of the U.S. Because it is a manmade feature that does not replace a historical, natural watercourse and does not have a downstream connection to a natural watercourse, the canal would not be subject to Section 1602 of the California Fish and Game Code. However, the RWQCB would likely consider the canal to be a water of the State.

3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its 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 a 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. These impacts may be considered significant. According to 2021 CEQA Status and Guidelines (2021), “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 will:

- 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 state or federally protected wetlands (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; and
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its 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 a 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. These impacts may be considered significant. According to 2021 CEQA Status and Guidelines (2021), “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 will:

- 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 state or federally protected wetlands (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; and
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2.2 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the CDFW and 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. To “take” a listed species, as defined by the state of California, is “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” said species (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” of a listed species (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.

3.2.3 Migratory Birds

State and federal laws also protect most bird species. The State of California signed Assembly Bill 454 into law in 2019, which clarifies native bird protection and increases protections where California law previously deferred to Federal law. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 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.

3.2.4 Birds of Prey

Birds of prey are 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.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.5 Jurisdictional Waters and Wetlands

Jurisdictional waters include waters of the United States subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE) and waters of the State of California subject to the regulatory authority of the California Department of Fish and Wildlife (CDFW) and the California Regional Water Quality Control Board (RWQCB).

3.2.5.1 Clean Water Act, Section 404

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Drainage channels and adjacent wetlands may be considered “waters of the United States” or “jurisdictional waters” subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

The definition of waters of the U.S. have changed several times in recent years. In January 2020, the Environmental Protection Agency (EPA) and USACE jointly issued the Navigable Waters Protection Rule. The new rule was published in the Federal Register on April 21, 2020, and took effect on June 22, 2020.

On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the Navigable Waters Protection Rule. In light of this order, the EPA and USACE have halted implementation of the Navigable Waters Protection Rule and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 regulatory regime defines waters of the U.S. as:

1. 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;
2. All interstate waters including interstate wetlands;
3. 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 including any such waters:

- a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
 5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
 6. The territorial sea;
 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE under Section 404 of the Clean Water Act. 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 without a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards (Section 3.6.2).

3.2.5.2 Porter-Cologne Water Quality Act/Clean Water Act, Section 401

There are nine Regional Water Quality Control Boards (RWQCB) statewide; collectively, they oversee regional and local water quality in California. The RWQCB administers Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders.

Pursuant to Section 401 of the Clean Water Act, the RWQCB regulates waters of the State that are also waters of the U.S. Discharges into such waters require a Section 401 Water Quality Certification from the RWQCB as a condition to obtaining certain federal permits, such as a Clean Water Act Section 404 permit (Section 3.6.1). Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or a waiver of WDRs, from the RWQCB.

The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that “any person discharging waste, or proposing to discharge waste, within any region that could affect the ‘waters of the State’ to file a report of discharge” with the RWQCB. Waters of the State as defined in the Porter-Cologne Act (Water Code Section 13050[e]) are “any surface water or groundwater, including saline waters, within the boundaries of the state.” This gives the RWQCB authority to regulate a broader set of waters than the Clean Water Act alone; specifically, in addition to regulating waters of the U.S. through the Section 401 Water Quality Certification process, the RWQCB also claims jurisdiction and exercises discretionary authority over “isolated waters,” or waters that are not themselves waters of the U.S. and are not hydrologically connected to waters of the U.S.

The RWQCB also administers the Construction Stormwater Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Stormwater Program. A prerequisite for this permit is the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, stormwater, or other pollutants into a Water of the U.S. may require a NPDES permit.

3.2.5.3 California Fish and Game Code, Section 1602

The CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a

Notification of Lake or Streambed Alteration. If the CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.6 Local Policies or Habitat Conservation Plans

The Resource Conservation Elements of the 2035 Kings County General Plan contains a number of goals and policies on biological resources. These County policies are outlined below.

Wetland and Riparian Areas. The County's goal is to conserve the functions and values of wetland communities and riparian areas while allowing compatible uses where appropriate.

Fish and Wildlife Habitat. The County's goal is to protect, restore, and enhance habitats in Kings County that support fish and wildlife species so that populations are maintained at viable levels.

Vegetation. The County's goal is to protect the valuable vegetation resources of each County. The Open Space and Conservation Element of the Fresno County General Plan contains a number of policies related to Natural Resources. These policies are directed specifically to the protection of special habitat areas such as wetlands and riparian areas, as well as fish and wildlife habitat.

3.3 PROJECT IMPACTS AND MITIGATION MEASURES

The Utica Solar project involves the conversion of approximately 29.5 acres of ruderal fields to solar generation facilities and the following sections assume that the entire project site will be affected by the project.

Project impacts to biological resources and mitigations are discussed below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impacts. Four special-status vascular plant species are known to occur in the vicinity of the Project Site: San Joaquin woollythreads (*Monolopia congdonii*), Lost Hills crownscale (AKA Lost Hills Saltbush) (*Atriplex coronate* var. *vallicola*), recurved larkspur (*Delphinium recurvatum*), and Kings gold (*Tropidocarpum californicum*) (see Table 1). Due to historical land

management and soils of the site, habitat for these four plant species is absent. Therefore, the planned solar project would not affect regional populations of these species and potential impacts would be less-than-significant.

Mitigation. Mitigation measures are not warranted.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impacts. Of the 33 special-status animal species potentially occurring in the region, 21 species would be absent or unlikely to occur within the Project Site due to unsuitable habitat conditions. These include the vernal pool fairy shrimp, valley elderberry longhorn beetle, Monarch butterfly, Delta smelt, California tiger salamander, California red-legged frog, western spadefoot, blunt-nosed leopard lizard, giant garter snake, San Joaquin whipsnake, black tern, Fulvous whistling-duck, olive-sided flycatcher, western yellow-billed cuckoo, tricolored blackbird, Nelson's antelope squirrel, giant kangaroo rat, Tipton kangaroo rat, short-nosed kangaroo rat, Tulare grasshopper mouse, and ringtail. Construction of the Utica Solar project would have no effect on loss of habitat for these species because there is little or no likelihood that they are present.

An additional 12 species may regularly or occasionally utilize the Project Site and Access Corridor for foraging, including the western snowy plover, mountain plover, Swainson's hawk, northern harrier, white-tailed kite, golden eagle, western burrowing owl, Townsend's big-eared bat, pallid bat, California mastiff bat, American badger, and San Joaquin kit fox. The Project Site does not provide regionally important foraging habitat for these species. Migrant species such as the mountain plover pass through or over many types of habitats en route to breeding or wintering habitat. Considerable habitat suitable for migratory movements and winter foraging would continue to be available for these species on other lands within the region following development. Therefore, development of the solar project would result in a less-than-significant impact on these species.

The three bat species listed above, including the Townsend's big-eared bat, pallid bat, and California mastiff bat may forage over the site, however, roosting habitat is absent from the site for these species.

Mitigation. For species that are subject to potentially significant impacts due to construction of the Utica Solar project, mitigation measures are identified below for each as follows: raptors and migratory birds (Mitigation 3.3.3); San Joaquin kit fox (Mitigation 3.3.4); American badger (Mitigation 3.3.5); Swainson's hawk (Mitigation 3.3.6); and burrowing owl (Mitigation 3.3.7).

3.3.3 Disturbance to Active Raptor and Migratory Bird Nests

Potential Impacts. In addition to the Swainson's hawk and burrowing owl (discussed below in Sections 3.3.6, 3.3.7, and 3.3.8), several other raptor species such as the northern harrier, white-tailed kite, red-tailed hawk, and golden eagle are known to forage near the site. Additionally, the Project Site provides nesting habitat for several migratory bird species, including, but not limited to, the snowy plover, black-necked stilt, common raven, loggerhead shrike, house finch, and Brewer's blackbird. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The canal habitat, as well as power poles and barren ground on and adjacent to the Project Site, provide potential nesting habitat for these species. If birds were to nest in these areas in the future prior to construction, such project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. To minimize construction disturbance to active raptor and other bird nests, the following measure(s) will be followed:

Mitigation 3.3.3a (Pre-construction surveys). If tree removal, site preparation, grading, or construction is planned to occur within the breeding period (i.e., between February 1 and August 31), a qualified biologist will conduct pre-construction surveys for active nests of migratory birds within 10 days of the onset of these activities. If construction activity is planned

to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.

Mitigation 3.3.3b (Monitoring Active Nests). Should any active nests be discovered in or near proposed construction zones, a qualified biologist shall continuously monitor identified nests for the first 24 hours prior to any construction related activities to establish a behavioral baseline. Once work commences, continuously monitor all nests to detect any behavioral changes because of the Project. If behavioral changes are observed, stop the work causing that change and consult with the California Department of Fish and Wildlife for additional avoidance and minimization measures.

Mitigation 3.3.3c (Establish Buffers). Alternatively, should any active nests be discovered in or near proposed construction zones, the biologist will establish a 250-foot construction-free buffer around the nest for non-listed birds, a 500-foot buffer for unlisted raptors, and a half-mile for listed bird species. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Variance from these setback distances may be allowed if a qualified biologist provides compelling biological or ecological reason to do so and if CDFW is notified in advance of implementation of a no disturbance buffer variance.

Mitigation 3.3.3d (Tailgate Training). All construction and operations workers on the project site shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck.

Implementation of the above measures would ensure that construction of the solar would have no impact on nesting raptors and migratory birds and that the project would follow state and federal laws protecting nesting birds.

3.3.4 Impacts to San Joaquin Kit Fox

Potential Impacts. The entire Project Site consists of ruderal surrounded by agricultural habitat. Of primary interest for this assessment are kit fox records from the vicinity of the project site. According to the CNDDDB there have been a total of 24 historical (1971-2001) sightings within the ten miles of the site (Figure 4) (CDFW 2022). Most of these sightings occur near I-5, the Kettleman Hills, and near Kettleman City with records in the immediate vicinity being from between 1971 and 1981. Based on the site's location and the distribution of kit fox occurrences in its vicinity, the Project Site may only rarely be used for regional movements of individual kit fox. The irrigation canal along the northern border of the Project Site may act as movement corridor; however, should a kit fox utilize this or other nearby canals as corridors, the fox would have to travel through marginal to poor habitat before reaching the Project Site, which itself holds marginal habitat value. Although a few burrows were observed during the 2022 surveys that were of suitable dimensions for kit fox, most of these burrows were or appeared to be small mammal burrows and coyote prints were observed on the site. As discussed in Section 2.6.3, the Project Site provides ruderal habitat and the adjacent canal offers marginal habitat for this species. Kit foxes from populations reported from the surrounding areas may pass through and possibly forage within the Project Site from time to time during regular dispersal movements. Therefore, to be prudent, the following measures are identified:

Mitigation. The following measures shall be implemented in conjunction with the construction of the project site.

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 shall 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 solar 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 to be using the Project Site during preconstruction surveys, the construction activity shall avoid the habitat occupied by kit fox and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be notified.

Mitigation Measure 3.3.4c (Tailgate Training). All workers on the Utica Solar project shall attend a tailgate training that includes a description of the species, a summary of their biology, and minimization measures and instructions on what to do if a San Joaquin kit fox is observed on the solar project site.

Mitigation Measure 3.3.4d (Minimization of Potential Disturbance to Kit Fox). Whether or not kit foxes are found to be present, all permanent and temporary construction activities and other types of project-related activities shall be carried out in a manner that minimizes potential 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.

Mitigation Measure 3.3.4e (Mortality Reporting). The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall 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.

Mitigation Measure 3.3.4d (Wildlife-Friendly Fencing). The perimeter fencing surrounding each phase of the Utica Solar project shall consist of wildlife-friendly or permeable fencing that allows San Joaquin kit fox and other wildlife to move through the site unimpeded. The bottom of the perimeter fencing shall be 5 to 7 inches above the ground, as measured from the top of

the ground to the lowest point of the fence. The bottom of the fence edges shall be knuckled (wrapped back to form a smooth edge) to allow wildlife to pass through safely. The fencing shall not be electrified.

Implementation of these measures would reduce impacts to the San Joaquin kit fox to a less-than-significant level and would minimize the risk that construction activities during the development of the Utica Solar would result in mortality to individual kit foxes. Should kit fox be found within the solar project site or access corridor, the applicant may wish to contact the USFWS for implementation of a Safe Harbor Agreement. If allowed, this agreement will allow the applicant “assurances that additional land use restrictions as a result of their voluntary conservation actions would not be imposed by the USFWS” (USFWS, 1998).

3.3.5 Impacts to American Badgers

Potential Impacts. Given the observations of American badgers, a California Species of Special Concern, on lands in the region with similar habitats to those of the Project Site, the potential exists that the American badger may reside within the Project Site or in the vicinity. No badgers or badger burrows were observed during surveys of the Project Site. However, the surveys took place during the day when badgers are not typically active above ground. Potential badger habitat was found on the Project Site in the form of ruderal fields. While the occurrence of badgers is expected to be unlikely, it cannot be ruled out. Therefore, the project has the potential to result in a significant impact to American badgers.

Mitigations. Implementation of the following measures prior to the construction of the Utica Solar project will reduce impacts to American badgers from direct mortality to a less-than-significant level.

Mitigation Measure 3.3.5a (Pre-construction Surveys). During the preconstruction surveys for other species, a qualified biologist shall also determine the presence or absence of badgers prior to the start of construction. If badgers are found to be absent, a report shall be written to the applicant so stating and no other mitigations for the protection of badgers shall be warranted.

Mitigation Measure 3.3.5b (Avoidance and Monitoring). If an active badger den is identified during pre-construction surveys within or immediately adjacent to an area subject to construction, a construction-free buffer of up to 300 feet shall be established around the den. Once the biologist has determined that badger has vacated the burrow, the burrow can be collapsed or excavated, and ground disturbance can proceed. Should the burrow be determined to be a natal or reproductive den, and because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor shall be present onsite during construction activities in the vicinity of the burrows to ensure the buffer is adequate to avoid direct impact to individuals or natal/reproductive den abandonment. The monitor will be required to be present until it is determined that young are of an independent age and construction activities would not harm individual badgers.

Mitigation Measure 3.3.5c (Tailgate Training). All workers on the solar project shall attend a tailgate training that includes a description of the species, a summary of its biology, and minimization measures and instructions on what to do if an American badger is observed.

Implementation of the above measures would reduce potential impacts to the American badger to a less-than-significant level.

3.3.6 Impacts to Nesting and Foraging Habitat for Swainson's Hawk

Potential Impacts. Foraging habitat is available throughout the project area; however, nesting habitat is absent from the site. Trees of poor suitability to support a SWHA nest exist north of the site. Although the CNDDDB (CDFW 2022) does not report any records for SWHA within 10 miles of the project site, a study by Hanson in 1998 did report a juvenile at a nest in a eucalyptus tree more than a mile north of the site. A half-mile is the typical construction-free buffer required around an active nest, therefore, while Swainson's hawks may forage on the site and are unlikely to nest on or adjacent to the site, a preconstruction survey is still recommended within a half-mile of the site. Construction activities occurring near an active Swainson's hawk nest could adversely affect nesting success or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Swainson's hawks may occasionally forage on the Utica Avenue Solar Project site. However, there is abundant foraging habitat for Swainson's hawks in the project vicinity. Given the absence of known recent Swainson's hawk nests within a 10-mile radius of the project site, the loss of foraging habitat resulting from the Utica Avenue Solar Project would represent a *less-than-significant* impact to foraging habitat for Swainson's hawk.

Implementation of the following mitigation will reduce impacts to nesting Swainson's hawks to a less-than-significant level.

Mitigation. There are potential nest trees within a half-mile of the Project Site; therefore, prior to construction, the following measures shall be implemented.

Mitigation 3.3.6a (Pre-construction Surveys). During the nesting season prior to the construction on the Utica Solar project site within a half-mile of a potential nest tree, preconstruction surveys shall be conducted within the construction zones and adjacent lands to identify any nesting pairs of Swainson's hawks. These surveys will conform to the guidelines 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. No preconstruction surveys are required for construction activity located farther than a half-mile from a potential nest tree.

Mitigation 3.3.6b (Establish Buffers). Should any active nests be discovered in or near proposed construction zones, the qualified biologist shall establish a suitable construction-free buffer around the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged.

Mitigation Measure 3.3.6c (Tailgate Training). All workers on the construction of the Project shall attend tailgate training that includes a description of the species, a summary of its biology, and minimization measures and instructions on what to do if a Swainson's hawk is observed on or near the construction zone.

Implementation of the above measure would reduce impacts to nesting Swainson's hawks to a less-than-significant level.

3.3.7 Impacts to Burrowing Owls

Potential Impacts. The site was evaluated on January 13 and February 23, 2022, for the potential for the site to support burrowing owls. During this survey, burrowing owls and evidence of burrowing owls (i.e. pellets, feathers, whitewash, etc.) were not observed onsite, however, suitable habitat onsite consists mainly of small mammal burrows and foraging habitat within the ruderal field for burrowing owls.

The development of the Project Site could result in the loss of foraging and breeding habitat for burrowing owls. . Since abundant suitable foraging and breeding habitat exists in the lands surrounding the Utica Avenue Solar Project site and in the general vicinity to support burrowing owls, the loss of 29.5 acres of foraging and breeding habitat as result of project development would not constitute a significant impact.

For any burrowing owls nesting on the project site at the time of project construction, ground disturbance from construction may also 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 the California Fish and Game Code. Mortality of individual birds would be a violation of state and federal law. The mortality of individual burrowing owls would constitute a significant environmental impact.

Mitigation. Prior to the construction of the Project, the following measures shall be implemented which will reduce impacts to the burrowing owl to a less-than-significant level:

Mitigation Measure 3.3.7a (pre-construction surveys). Pre-construction surveys shall be conducted for burrowing owls by a qualified biologist no more than 14 days in advance of the on-set of ground-disturbing activity. These surveys shall be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) or the most recent CDFW guidelines. The surveys shall cover all areas of suitable burrowing owl habitat within the construction zones.

Mitigation Measure 3.3.7b (Avoidance of active nests during breeding season). If pre-construction 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 shall be established around all active owl nests. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not be allowed to enter the enclosed setback areas. Buffers shall 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, but only under the conditions described below.

Mitigation Measure 3.3.7c (Avoidance of occupied burrows during non-breeding season, and passive relocation of resident owls). During the non-breeding season (September through January), any burrows occupied by resident owls in areas planned for construction shall be protected by a construction-free buffer with a radius of 150 to 250 feet around each active burrow, with the required buffer distance to be determined in each case by a qualified biologist. Passive relocation of resident owls is not recommended by CDFW where it can be avoided. If passive relocation is not avoidable, resident owls may be passively relocated according to a relocation plan prepared by a qualified biologist.

Mitigation Measure 3.3.7d (Tailgate Training). All construction workers shall attend tailgate training that includes a description of the species, a summary of their biology, and minimization measures and instructions on what to do if a burrowing owl is observed within or near a construction zone.

3.3.8 Impacts to Wildlife Movement Corridors

Potential Impacts. It is likely that some species use the onsite segment of former irrigation canal and other ditches and canals in the vicinity, as well as potentially the project site itself as movement corridors, including San Joaquin kit fox. The Project Site likely has some small value for the regional movements of some wildlife species; however, the adjacent and nearby canal system has greater value when placed in a regional context. Since the development of the Utica Solar project is expected to affect only a small portion of the inactive canal along the northern

boundary of the site, it is expected that wildlife that currently uses the canal for movement will continue to use the canal system to move through the site and vicinity at project build-out.

To allow for ground movement of wildlife through the Project Site, all fencing enclosing the Utica Solar facility is planned to consist of “wildlife friendly” fencing with a continuous 5- to 7-inch separation from the top of the ground to the lowest point of the bottom of the fence along the entire fence. Such fencing will not be electrified.

Therefore, wildlife currently using the Project Site for movement is expected to continue to use the Project Site after buildout, as wildlife friendly fencing will be used and the adjacent canal system will be retained in order to allow for wildlife movement through the Project Site.

Impacts to movement corridors for local wildlife are less-than-significant.

Mitigations. Mitigation for impacts to wildlife movements is not warranted.

3.3.9 Impacts to Jurisdictional Waters, Wetlands, or Riparian Habitats

Potential Impacts. The only hydrologic feature occurring within the study area is the manmade irrigation canal along the site’s northern boundary. This feature would not be considered a water of the U.S. but may be considered a water of the State (Section 2.6).

An existing earthen berm within the canal is proposed to be widened by approximately 10 feet to accommodate a vehicular access crossing or road to the site. Widening of the berm would result in approximately 10 linear feet of fill in the canal. Fill of a short reach of the canal would not significantly alter its existing function or value. Therefore, this impact would be considered less than significant.

Mitigation. Mitigation measures are not warranted.

3.3.10 Local Policies or Habitat Conservation Plans

Potential Impacts. The Utica Solar project would follow the provisions of Kings County General Plan polices. In particular, the project’s avoidance of active canals would assure that biological resources of concern to Kings County would be avoided and preserved.

The USFWS has adopted the *Recovery Plan for Upland Species of the San Joaquin Valley* (USFWS 1998) which covers 34 species of plants and animals that occur in the San Joaquin Valley. Most of these species occur in arid grasslands and scrublands of the San Joaquin Valley and the adjacent foothills and valleys. The plan includes information on recovery criteria, habitat protection, umbrella and keystone species, monitoring and research program, adaptive management, and economic and social considerations. Current range maps and additional species occurrence information has been updated through Species Status Assessments (USFWS) and 5-year Reviews (USFWS). With this updated information in mind, the only species addressed in the recovery plan that potentially occurs in the Project Site vicinity is the San Joaquin kit fox, and no sightings have been recorded in the vicinity since 2001, as discussed above. The Recovery Plan does not identify the Project Site or any other lands in the vicinity as areas that should be protected as Specialty Reserve Areas, Wildlife-Compatible Farmland to be Maintained, or Areas Where Connectivity and Linkages Should be Promoted.

The Project Site is not covered by any existing Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP), or any other conservation plan adopted at the local, regional, state, or federal level.

Mitigation. No mitigations are warranted.

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APPENDIX C

Phase I Environmental Site Assessment

Prepared by

Moore Twining Associates

May 2022



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
UTICA AVENUE SOLAR PROJECT
SEC OF UTICA AVENUE AND 21ST AVENUE
SOUTHEAST OF KETTLEMAN CITY, CALIFORNIA**

Prepared For:

Mr. Bert Verrips, AICP

Environmental Consulting Services
11942 Red Hill Avenue
Santa Ana, California 92705

Prepared By:

Moore Twining Associates, Inc.

2527 Fresno Street
Fresno, California 93721

Project Number: C64414.0100

March 25, 2022

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

UTICA AVENUE SOLAR PROJECT
SEC OF UTICA AVENUE AND 21ST AVENUE
SOUTHEAST OF KETTLEMAN CITY, CALIFORNIA

EXECUTIVE SUMMARY

Moore Twining Associates, Inc. (Moore Twining) was retained by Mr. Bert Verrips to conduct a Phase I Environmental Site Assessment (Phase I ESA) for an approximately 40-acre property located at the southeast intersection of Utica Avenue and 21st Avenue in Kings County, southeast of the City of Kettleman City, California. (Site). This Phase I ESA was conducted in general conformance with the methods and procedures described in the American Society for Testing and Materials (ASTM) "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (E1527-21), published January 2022.

This summary should be used in conjunction with the entire report. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the Site history and conditions. Please review the entire report for more information regarding Moore Twining's findings and opinions.

On-Site Summary

The Site comprises approximately 40 acres of vacant land. The Site is located at the southeast corner of Utica Avenue and 21st Avenue in Kings County, southeast of the City of Kettleman City, California (Site). The Site is a portion of the parcel assigned the following Assessor's Parcel Numbers (APNs): 048-030-050.

Based on Moore Twining's review of historical documents, the Subject Property has been vacant except for a brief period in the mid-1980's when it was irrigated for crops or grasses.

At the time of the Site reconnaissance, the Subject Property was vacant.

The Subject Property was not listed in any databases.

Off-Site Summary

At the time of the Subject Property Reconnaissance:

- The Subject Property was bordered to the north by Utica Avenue and vacant land.
- The Subject Property was bordered to the east by vacant land.
- The Subject Property was bordered to the south by a canal and vacant land.
- The Subject Property was bordered to the west by vacant land.

There were no regulatory listings found within the search radius.

There were no regulatory listings found within the search radius.

Conclusions Summary

On behalf of Mr. Bert Verrips, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for a property located at 21st and Utica Avenue in an unincorporated area of Kings County, east of Kettleman City, California. This assessment has revealed no evidence of CRECs, HRECs, or RECs.

1.0 INTRODUCTION

Moore Twining Associates, Inc. (Moore Twining) was retained by Mr. Bert Verrips to conduct a Phase I Environmental Site Assessment (Phase I ESA) for an approximately 40-acre property located at the southeast intersection of Utica Avenue and 21st Avenue in Kings County, southeast of the City of Kettleman City, California. (Site). This Phase I ESA was conducted in general conformance with the methods and procedures described in the American Society for Testing and Materials (ASTM) "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (E1527-21), published January 2022.

1.1 Objective

The objective of this assessment was to identify Recognized Environmental Conditions (RECs) located at the Site or adjacent properties that could present material risk of harm to public health or to the environment. Recognized environmental conditions are defined in ASTM E1527-21 as the presence or likely presence of any hazardous wastes and/or substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into the ground, groundwater, or surface water of the property. It is understood that this property transaction is a lease agreement.

1.2 Scope of Services

This Phase I ESA was performed to evaluate the potential presence of environmental conditions that may have resulted from operations at the Site or at nearby properties. The assessment included a Site reconnaissance, a review of available documentation of land-use history for evidence of the use, storage and/or disposal of hazardous substances, and a review of available regulatory information. This Phase I ESA included the following tasks:

- A review of the current and past uses of the Site since 1914;
- A Site reconnaissance to assess evidence of current and/or past use or storage of toxic or hazardous material; on-Site ponds, landfills, drywells, waste streams or other disposal units; visible soil discoloration; aboveground or underground storage tanks; electrical transformers containing polychlorinated biphenyls (PCBs); and drums, barrels and other storage containers;
- Visual observation of adjacent properties in order to determine if current and/or historical operations associated with these properties may pose a threat to the subject Site;
- A review of available federal Environmental Protection Agency (EPA), state EPA and regulatory agency lists of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations in the Site area. Using area-profile services provided by Environmental Data Resources, Inc. (EDR), Moore Twining

cataloged properties near the Site that have been identified on regulatory agency lists. Search criteria were in conformance with ASTM E1527-21;

- Contact with relevant municipal, county and state agencies to review readily available records and permits; and
- Preparation of this report to present our methods, findings and conclusions.

The Scope of Services specifically excluded cultural, archeological, and biological assessments, as well as, sampling and analysis for the potential presence of asbestos containing building materials, lead based paint, or an assessment for radon gas. In addition, the Scope of Services did not include the collection and/or analysis of any materials including air, soil, soil-gas, or groundwater samples.

1.3 Limitations and Limited Conditions

The purpose of an environmental assessment is to reasonably assess the potential for, or actual impact of, past practices on a given site that may pose an environmental impairment to the Site. No assessment is thorough enough to identify all potential environmental impairments at a given site. If environmental impairments have not been identified during the assessment, such a finding should not, therefore, be construed as a guarantee of the absence of such conditions on the Site, but rather the result of the services performed within the scope, limitations, and cost of the work performed.

The conclusions presented in this report are solely professional opinions based on information provided regarding the Site and the findings of the reconnaissance and records search. Information obtained from the aerial photography is an interpretation of features observed in the photographs. Actual conditions at the Site may have been different from those interpreted. Conclusions presented are based on conditions as they existed at the time the work was performed. Changes in existing conditions of the Site due to time lapse, natural causes, or operations adjacent to the Site may deem conclusions presented in this Phase I ESA report invalid, unless the changes are reviewed, and the conclusions reevaluated. Such conditions may require additional site reconnaissance and require field exploration and laboratory testing to assess if the conclusions are applicable considering the changed conditions.

This work was performed for the sole use of our client. Any reliance on this report by a third party is at such party's sole risk. Others who seek to rely on the findings have a duty to determine the adequacy of this report for their intended use, time, and location. Moore Twining does not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report. No other warranty, either expressed or implied, is made. The standard of practice is time dependent. Services provided were performed consistent with generally accepted professional consulting principles and practices for environmental assessors at the time this work was performed. The findings and conclusions presented in this report are solely professional opinions derived in accordance with current standards of professional practice.

2.0 SITE DESCRIPTION

Information concerning the Site was obtained from a Site reconnaissance and a review of the documents referenced in Sections 4.0 and 5.0 of this report. The Site reconnaissance was conducted on March 24, 2022 by Keith Mayes, a representative of Moore Twining.

2.1 Location and Description of Property

The Site comprises approximately 40 acres of vacant land. The Site is located at the southeast corner of Utica Avenue and 21st Avenue in Kings County, southeast of the City of Kettleman City, California (Site). The Site is a portion of the parcel assigned the following Assessor’s Parcel Numbers (APNs): 048-030-050.

The listed owner for the Site is:
William Michael Winterburn

A Site location map is presented as Drawing 1, and a Site plan, which includes Site boundaries, is presented as Drawing 2 in Appendix A. A parcel map is included in Appendix E.

2.2 Physical and Environmental Setting of the Site

Environmental characteristics including topography, geology, soil, and hydrogeology were evaluated based on Site observations, and review of published literature and maps. The findings are summarized in the following table.

PHYSICAL SETTING INFORMATION FOR THE SUBJECT SITE AND SURROUNDING AREA		SOURCE
Location	Kettleman City, California	EDR Report, March 17, 2022
Site Elevation	The Site elevation is approximately 217 feet above mean sea level.	
Topographic Gradient	Minimal sloping toward the north.	
Closest Surface Water	An un-named seasonal agricultural canal is south of the Site.	
Flood Plains¹	According to FEMA DFIRM Flood Data provided by EDR, the Site is not located within 1% annual chance or a 0.2% annual chance flood zone.	FEMA DFIRM Flood Data Map 06031C0650C

¹ This is for general locational information only. The data presented should not be used for design or development purposes, as a comprehensive flood zone study has not been conducted.

PHYSICAL SETTING INFORMATION FOR THE SUBJECT SITE AND SURROUNDING AREA		SOURCE
Wetlands	According to the National Wetlands Inventory the nearest mapped wetland is over 0.25 miles north of the Site.	National Wetlands Inventory https://www.fws.gov/wetlands/data/mapper.html
General Soil Characteristics		
Soil Type	Milham	United States Department of Agriculture, Soil Survey website; http://websoilsurvey.sc.egov.usda.gov
Description	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.	
Area Specific Geology/Hydrogeology Characteristics		
Geology	The Site is located within the southern portion of the San Joaquin Valley. The San Joaquin Valley forms the southern half of the Great Valley Geomorphic Province, a topographic and structural basin bound on the east by the Sierra Nevada and to the west by the Coast Range. The Sierra Nevada, a fault block dipping gently to the southwest, is composed of igneous and metamorphic rocks of pre-Tertiary age which comprise the basement complex beneath the valley. The subsurface of the Site and surrounding vicinity is characterized by a thick sequence of unconsolidated sediments from the Pleistocene epoch. Subsurface material beneath the Site is primarily composed of alluvial fan deposits and flood plain over-bank deposits including interbedded silts, sands, clays, and gravels.	(Wagner, 2002) (California Geologic Survey, 2010)
Hydrogeology	Groundwater and hydraulic gradient data were not available for the subject Site.	EDR Physical Setting Map-2022

PHYSICAL SETTING INFORMATION FOR THE SUBJECT SITE AND SURROUNDING AREA		SOURCE
Oil and Gas Wells:		
Current Oil and Gas Wells on Subject Property	No oil wells are located on the Subject Property. The nearest operation well is over a mile away.	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) web site http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx
Historical Oil and Gas Wells on Subject Property	No historic oil wells are located on the Subject Property. The nearest historical “plugged” well to the Site is over 0.25 miles west of the Subject Property.	California Department of Conservation, DOGGR web site http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx

3.0 INFORMATION FROM THE SUBJECT PROPERTY RECONNAISSANCE

The objective of the Subject Property reconnaissance was to observe the Subject Property for specific indicators of environmental conditions. The Subject Property reconnaissance included a systematic search by vehicle of practically accessible areas of the Subject Property and adjacent properties. Several dirt access roads traversed the Subject Property at various locations and were used to scan the property from a slow-moving vehicle. Areas that included structures or features of interest were searched by foot. A Subject Property Plan depicting the Subject Property, adjoining property use, and observed on-site features is presented in Appendix A. Additionally, photographs were taken during the Subject Property reconnaissance, and selected photographs of the Subject Property are presented in Appendix B.

The Subject Property reconnaissance was conducted on March 24, 2022 by Keith Mayes, a representative of Moore Twining. The findings of the Subject Property reconnaissance are summarized in the following subsections.

3.1 Subject Property Reconnaissance - Description of Structures, Roads, and Other Subject Property Improvements

At the time of the Subject Property Reconnaissance, the Subject Property was vacant land.

3.2 Current Uses of the Subject Property

At the time of the Subject Property reconnaissance, the Subject Property was vacant.

3.3 Current Uses of the Adjoining Properties

At the time of the Subject Property Reconnaissance:

- The Subject Property was bordered to the north by Utica Avenue and vacant land.

- The Subject Property was bordered to the east by vacant land.
- The Subject Property was bordered to the south by a canal and vacant land.
- The Subject Property was bordered to the west by vacant land.

3.4 Subject Property Reconnaissance - Specific Indicators of Environmental Conditions

In addition to the general description of the Subject Property, specific indicators of environmental conditions were also evaluated for the Subject Property. Observations made during the Subject Property reconnaissance are summarized in the following table. Affirmative responses are discussed in more detail following the table.

Category	Feature	Observed
Interior (Not Applicable)	Elevators	N/A
	Air Compressors	N/A
	Incinerators	N/A
	Waste Treatment Systems	N/A
	Presses/Stamping Equipment	N/A
	Hydraulic Lifts or Hoists	N/A
	Paint Booth	N/A
	Plating Tanks	N/A
	Lathes, Screw Machines, etc.	N/A
	Regulated Hazardous Materials Use and Storage	N/A
	Floor Drains and Similar Facilities	N/A
Aboveground Chemical or Other Waste Storage or Waste Streams	Aboveground Storage Tanks (ASTs)	No
	Drums, Barrels and/or Containers > than 5-gallons	No
	Chip Hoppers	No
	Hazardous or Petroleum Waste Streams	No
Underground Chemical or Waste storage, Drainage or Collection Systems	Underground Storage Tanks (USTs)	No
	Fuel Dispensers	No
	Sumps or Cisterns	No
	Dry Wells	No
	Oil/Water Separators	No
	Flood Drains, Trench Drains, etc.	No
	Pipeline Markers	No
Exterior Observations	Stressed Vegetation	No
	Stained Soil or Pavement	No
	Pad or Pole-Mounted Transformers and/or Capacitors	No
	Soil Piles of Unknown Origin	No
	Leachate or Other Waste Seeps	No
	Trash, Debris, and/or Other Waste Materials	No
	Uncontrolled Dumping or Disposal Areas	No
	Surface Water Discoloration, Sheen or Free Product	No

	Strong, Pungent or Noxious Odors	No
	Groundwater Wells	No
	Storm Water Retention or Detention Ponds	No
	Pits, Ponds or Lagoons	No

No environmental concerns were observed.

Other Specific Indicators of Environmental Conditions

No other specific indicators were observed during the Subject Property reconnaissance.

4.0 HISTORICAL AND CURRENT INFORMATION ON THE PROPERTY AND ADJOINING PROPERTIES

The history of land-use on and near the Subject Property was determined from the review of historic aerial photographs, topographic maps, Sanborn maps, building permits, and historic city directories. The findings are summarized in the following subsections.

4.1 Aerial Photograph Review

Available historical aerial photographs of the Subject Property and vicinity for the years 1937, 1940, 1950, 1960, 1974, 1976, 1984, 1994, 2006, 2009, 2012, 2016, and 2020 were reviewed for indications of past Subject Property use and/or Subject Property activities which may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. The results of the aerial photograph review are summarized in the following table. Copies of the historical aerial photographs are included in Appendix D.

Year	Summary of Information
1937-1976 (EDR)	The Subject Property and the adjoining properties in all directions appear as undeveloped land. An unpaved road transects the Subject Property diagonally in the years 1940 to 1960.
1984 (EDR)	The Subject Property appears to be used for agricultural purposes and is irrigated.
1994-2020 (EDR and Google Earth)	The Subject Property is vacant. The surrounding properties are either crops or vacant.

4.2 Topographic Map Review

Available topographic maps of the Subject Property and vicinity for the years 1914, 1930, 1936, 1943, 1954, 2012, 2015, and 2018 were reviewed for indications of past Subject Property use and/or Subject Property activities which may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. Copies of the historical topographic maps are included in Appendix D.

A review of the historical topographic maps did not prompt any additional environmental concerns.

4.3 Sanborn Fire Insurance Map Review

Sanborn maps were not available for the Subject Property or surrounding areas.

4.4 Historical City Directory Review

City directories can provide information concerning past and current occupancy of the Subject Property and adjacent areas. Historical city directory information did not prompt any environmental concerns.

4.5 Building Permits

Building records can provide a history of on-Site structures, features, and development. Building permits were not available due to the rural nature of the Subject Property.

4.6 User Provided Information

This section summarizes information provided by the user that assisted in the identification of potential RECs associated with the Subject Property.

4.6.1 Environmental Questionnaire

Moore Twining submitted an Environmental Questionnaire to Mr. Bert Verrips, a representative of Environmental Consulting Services. Mr. Verrips reported that he did not have any knowledge of environmental issues pertaining to the Subject Property.

Moore Twining submitted an Environmental Questionnaire to Environmental Consulting Services for distribution to the Subject Property owner. At the time this report was issued to the client, the completed questionnaire had not been returned to Moore Twining.

A copy of the environmental questionnaire is included in Appendix E.

4.6.2 Previous Investigations

No previous reports were provided by the User.

4.6.3 Title Documentation

Title documents, including a chain of title and/or title report, can provide the environmental professional with information regarding current and past ownership and information regarding environmental liens and/or land use and activity limitations.

No environmental liens or activity/use restrictions regarding the Subject Property were located; however, title and/or judicial records were not provided by the client or reviewed.

4.6.4 Institutional and Engineering Controls/Land Use Limitations/Environmental Liens

Institutional and Engineering Controls can indicate the current and/or historical presence of recognized environmental conditions that required remedial activity at the Subject Property.

No institutional and engineering controls, land use limitations or environmental liens related to remediation and/or cleanup were found as part of this assessment; however, title and/or judicial records were not provided by the client or reviewed.

4.7 Past Uses of the Property

Based on Moore Twining's review of historical documents, the Subject Property has been vacant except for a brief period in the mid-1980's when it was irrigated for crops or grasses.

4.8 Past Uses of Adjoining Property

Based on Moore Twining's review of historical documents, the surrounding properties have been vacant with the exception of a 10-20-year agricultural use in the 1980's. The property to the south was irrigated for agricultural use around 2006.

5.0 REGULATORY RECORDS REVIEW

Requests to review files for the Site were submitted to the Regional Water Quality Control Board (RWQCB), the Department of Toxic Substances Control (DTSC), and the Kings County Department of Public Health (KCDPH).

The KCDPH did not report any files for the Site. The DTSC and RWQCB did not report any files for the Site.

Printouts and information from regulatory databases and agencies are included in Appendix C.

5.1 Facilities Identified in the Regulatory Record Review

The information regarding the Subject Property was obtained from the EDR report, the DTSC Envirostor website (<http://envirostor.dtsc.ca.gov/>, Envirostor), and the State Water Resource Control Board's

GeoTracker website (<http://geotracker.waterboards.ca.gov/>, GeoTracker). At the time this report was issued to the client, the Subject Property was not on Envirostor or GeoTracker websites.

5.2 Facilities Identified in the EDR Report

Moore Twining contracted EDR to perform a search of available federal, state, and local database information systems for identifying known recognized environmental conditions present on the Site and nearby properties that have the potential to adversely impact the Site being assessed in this study. EDR’s findings are summarized below. The complete report furnished by EDR is included in Appendix D of the report.

TABLE 1 SUMMARY OF REGULATORY LISTS SEARCHED BY EDR AND RECORDS REVIEWED*								
Database	Target Site	Search Distance (Miles)	< 1/8	1/8 - ¼	1/4 - ½	½ - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
Federal Facility		0.500	0	0	0	NR	NR	0
SEMS		0.500	0	0	0	NR	NR	0
SEMS Archive		0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA-TSDF		0.500	0	0	0	NR	NR	0
RCRA Lg, Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROLS		0.500	0	0	0	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
STATE ASTM STANDARD								
RESPONSE		1.000	0	0	0	0	NR	0
ENVIROSTOR		1.000	0	0	0	0	NR	0
SWF/LF		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
SLIC		0.500	0	0	0	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0

TABLE 1 SUMMARY OF REGULATORY LISTS SEARCHED BY EDR AND RECORDS REVIEWED*								
Database	Target Site	Search Distance (Miles)	< 1/8	1/8 - ¼	1/4 - ½	½ - 1	> 1	Total Plotted
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0

NR = Not Requested (Beyond Search Distance)

TP = Target Property

* = Table includes only databases required for ASTM E1527-21 compliance. Other databases are included in the EDR report and discussed in the following sections as appropriate.

5.2.1 Subject Property

The Subject Property was not listed on any databases.

5.2.2 Off-Site

Moore Twining’s review of the referenced databases also considered the potential or likelihood of contamination from adjoining and nearby properties impacting this Site. To evaluate which of the adjoining and nearby properties identified in the regulatory database report present an environmental risk to the subject Site, Moore Twining considered the following criteria:

- The type of database on which the property is identified;
- The topographic position of the property relative to the subject Site;
- The direction and distance of the property from the subject Site;
- Local soil conditions in the area of the Site;
- The known or inferred groundwater flow direction;
- The status of the respective regulatory agency-required investigation(s) of the identified property, if any; and
- Surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes and ditches) located between the property and the subject Site.

No regulatory listings were reported for the area within the stated search radius.

5.2.3 Orphan Sites

An Orphan Site is a listed property in the same zip code as the subject Site which cannot be mapped because of inadequate address information. No orphan sites were included in the EDR report.

6.0 SUMMARY OF FINDINGS AND OPINIONS

The findings of the Phase I ESA are summarized in the following sections:

6.1 Subject Property

The Site comprises approximately 40 acres of vacant land. The Site is located at the southeast corner of Utica Avenue and 21st Avenue in Kings County, southeast of the City of Kettleman City, California (Site). The Site is a portion of the parcel assigned the following Assessor's Parcel Numbers (APNs): 048-030-050.

Based on Moore Twining's review of historical documents, the Subject Property has been vacant except for a brief period in the mid-1980's when it was irrigated for crops or grasses.

At the time of the Site reconnaissance, the Subject Property was vacant.

The Subject Property was not listed in any databases.

6.2 Off-Site

At the time of the Subject Property Reconnaissance:

- The Subject Property was bordered to the north by Utica Avenue and vacant land.
- The Subject Property was bordered to the east by vacant land.
- The Subject Property was bordered to the south by a canal and vacant land.
- The Subject Property was bordered to the west by vacant land.

There were no regulatory listings found within the search radius.

6.3 Data Gaps, Limitations, and Deviations

Data gaps are described as a lack of or inability to obtain information required by the standards and practices listed in ASTM E1527-21, despite good faith efforts by the environmental professional or prospective landowner.

Chain of title and environmental lien information was not provided by the client. This is considered a data gap.

A questionnaire was not received from the property owner. This is considered a non-significant data gap.

The material content of this report is intended to be consistent with a standard of practice as defined by ASTM E1527-21. However, the report format differs in style, arrangement, and presentation of material facts from the format described by ASTM.

7.0 CONCLUSIONS

On behalf of Mr. Bert Verrips, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for a property located at 21st and Utica Avenue in an unincorporated area of Kings County, east of Kettleman City, California. This assessment has revealed no evidence of CRECs, HRECs, or RECs.

8.0 CLOSING

Moore Twining Associates, Inc. performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for the subject Site. Any exceptions to, or deletions from, this practice are described Section 6.3 of this report.

We appreciate the opportunity to be of service to Mr. Bert Verrips, AICP, Environmental Consulting, on this project. Please contact our office at (800) 268-7021 if you have any questions regarding this report.

Sincerely,

MOORE TWINING ASSOCIATES, INC.
Environmental Services Division

A handwritten signature in black ink, appearing to read 'Katie Lister', written in a cursive style.

Katie Lister PG, QSD
Environmental Division Manager

"I declare that, to the best of my knowledge and belief, I meet the definition of Environmental Professional. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

9.0 REFERENCES

American Society for Testing and Materials. (2021). *ASTM Standards of Environmental Site Assessments for Commercial Real Estate, E1527-21, 21st ed.* West Conshohocken, Pennsylvania: ASTM International.

California Geologic Survey. (2010). *Geologic Map of California 1:750,000 Scale.*

Environmental Data Resources, Inc. (March 17, 2022). *Utica, Kettleman City, CA 93239- Inquiry Number: 6903654.* Environmental Data Resources, Inc.

Kearney Foundation of Soil Science. (1996). *Background Concentrations of Trace and Major Elements in California Soils.*

Wagner, D. (2002). *Note 36: Geomorphic Map of California.* California Geologic Survey.

10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Moore Twining Associates, Inc. Phase I Environmental Site Assessment staff is composed of a group of environmental professionals that perform Environmental Site Assessments on a routine basis. The Phase I ESA staff is managed and supervised by individuals who conduct, prepare, oversee, and/or review Environmental Site Assessments on a daily basis. Qualification profiles for these individuals are provided in the following section.

Reviewed by
Katie Lister PG, QSD
Environmental Division Manager

Mrs. Lister has nineteen years of experience conducting Phase I Environmental Site Assessments, Phase II assessment work, and Phase III remediation. Mrs. Lister has conducted environmental site assessments for a number of different project types including pesticide production facilities, shopping centers, gas stations, school sites, mines, large vacant properties, and agricultural sites.

APPENDIX A

DRAWINGS



1:24000

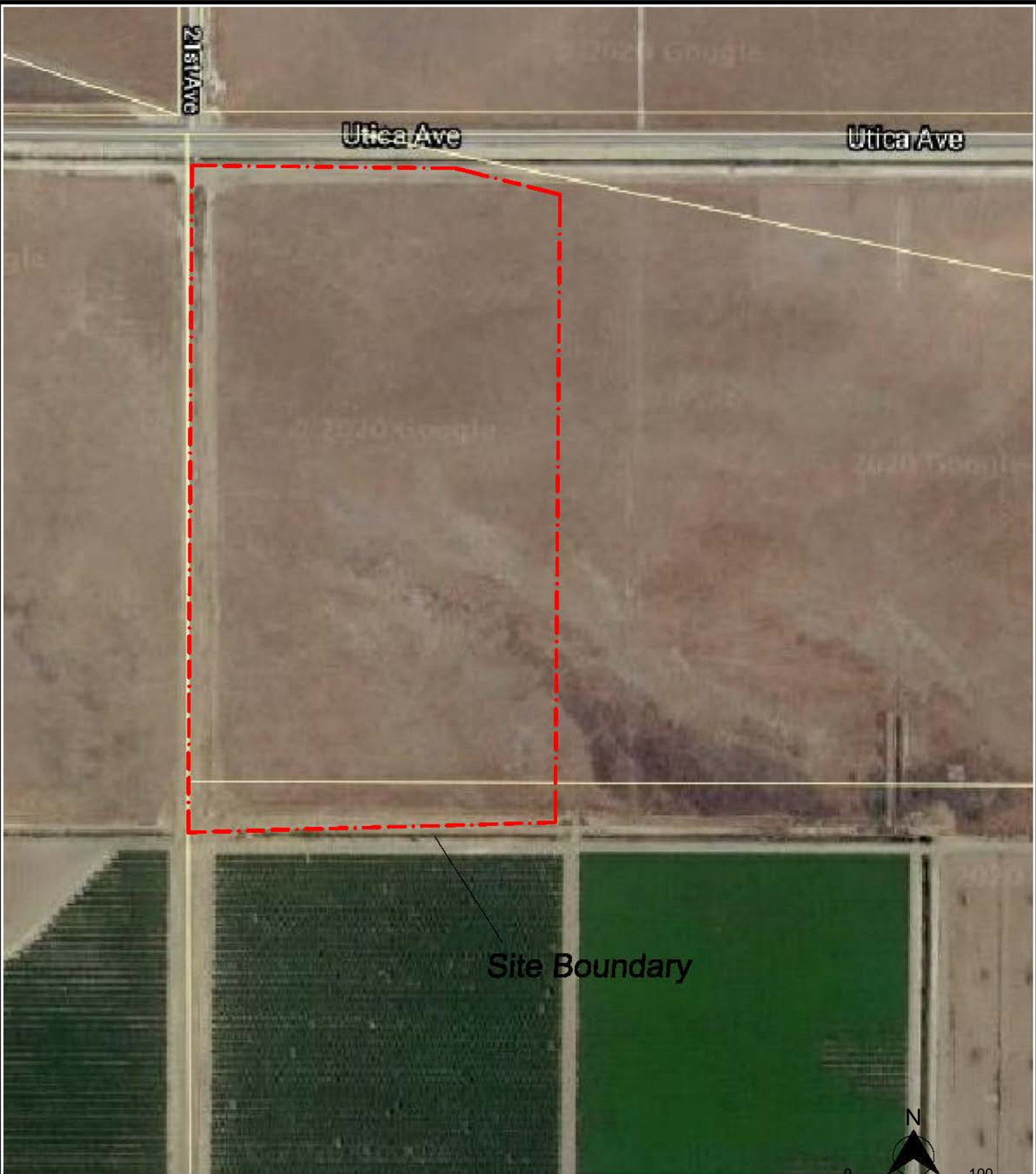
SITE LOCATION MAP
 PROPOSED SOLAR ARRAY
 SEC UTICA AND 21ST
 KETTLEMAN CITY, CALIFORNIA

FILE NO.
 Site Loc Map
 DRAWN BY:
 KL
 PROJECT NO.
 C64413.01

DATE DRAWN:
 03-22-2022
 APPROVED BY:
 DRAWING NO.
 1



**MOORE TWINING
 ASSOCIATES, INC.**

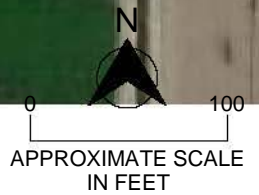


21st Ave

Utica Ave

Utica Ave

Site Boundary



SITE MAP
PROPOSED SOLAR ARRAY
SEC UTICA AND 21ST
KETTLEMAN CITY, CALIFORNIA

FILE NO.
Site Map

DATE DRAWN:
03-22-2022

DRAWN BY:
KL

APPROVED BY:

PROJECT NO.
C64413.01

DRAWING NO.
2



**MOORE TWINING
ASSOCIATES, INC.**

APPENDIX B

SITE PHOTOGRAPHS

Photo Album

by Keith Mayes



NE corner of Site facing west



NE corner of Site facing east



NE corner of Site facing north



NE corner of Site facing south



NW corner of Site facing south



NW corner of Site facing east



NW corner of Site facing north



NW corner of Site facing southeast



Offsite canal bank along northern boundary



SE corner of Site facing northwest



SE corner of Site facing south at adjacent property



SE corner of Site facing west



SW corner of Site facing south at adjacent property



SW corner of Site facing northeast



SW corner of Site facing north



SW corner of Site facing west at adjacent property



View of adjacent property facing east midway along eastern boundary



View of offsite canal along northern boundary



View of Site facing north west midway along southern boundary



View of Site facing west midway along eastern boundary



View of typical brush at Site



View of typical rodent hole at Site

APPENDIX C

REGULATORY AGENCY DOCUMENTATION

APPENDIX D

EDR REPORT

Utica Solar

Not Reported

Kettleman City, CA 93239

Inquiry Number: 06903651.2r

March 17, 2022

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NOT REPORTED
KETTLEMAN CITY, CA 93239

COORDINATES

Latitude (North): 35.9314340 - 35° 55' 53.16"
Longitude (West): 119.8593900 - 119° 51' 33.80"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 242027.3
UTM Y (Meters): 3979922.5
Elevation: 217 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 11998655 DUDLEY RIDGE, CA
Version Date: 2018

West Map: 11998683 LOS VIEJOS, CA
Version Date: 2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140619, 20140627
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
NOT REPORTED
KETTLEMAN CITY, CA 93239

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
--------	-----------	---------	-------------------	--------------------	----------------------------

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE..... State Response Sites

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR..... EnviroStor Database

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory

EXECUTIVE SUMMARY

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program
CDL..... Clandestine Drug Labs
CERS HAZ WASTE..... CERS HAZ WASTE
Toxic Pits..... Toxic Pits Cleanup Act Sites
US CDL..... National Clandestine Laboratory Register
PFAS..... PFAS Contamination Site Location Listing
AQUEOUS FOAM..... Former Fire Training Facility Assessments Listing

Local Lists of Registered Storage Tanks

SWEEPS UST..... SWEEPS UST Listing
HIST UST..... Hazardous Substance Storage Container Database
CA FID UST..... Facility Inventory Database
CERS TANKS..... California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS..... Environmental Liens Listing
LIENS 2..... CERCLA Lien Information
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

EXECUTIVE SUMMARY

MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
EML.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HAZNET.....	Facility and Manifest Data
ICE.....	ICE
HIST CORTESE.....	Hazardous Waste & Substance Site List
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
Notify 65.....	Proposition 65 Records
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
CIWQS.....	California Integrated Water Quality System
CERS.....	CERS
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)
MINES MRDS.....	Mineral Resources Data System
HWTS.....	Hazardous Waste Tracking System

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

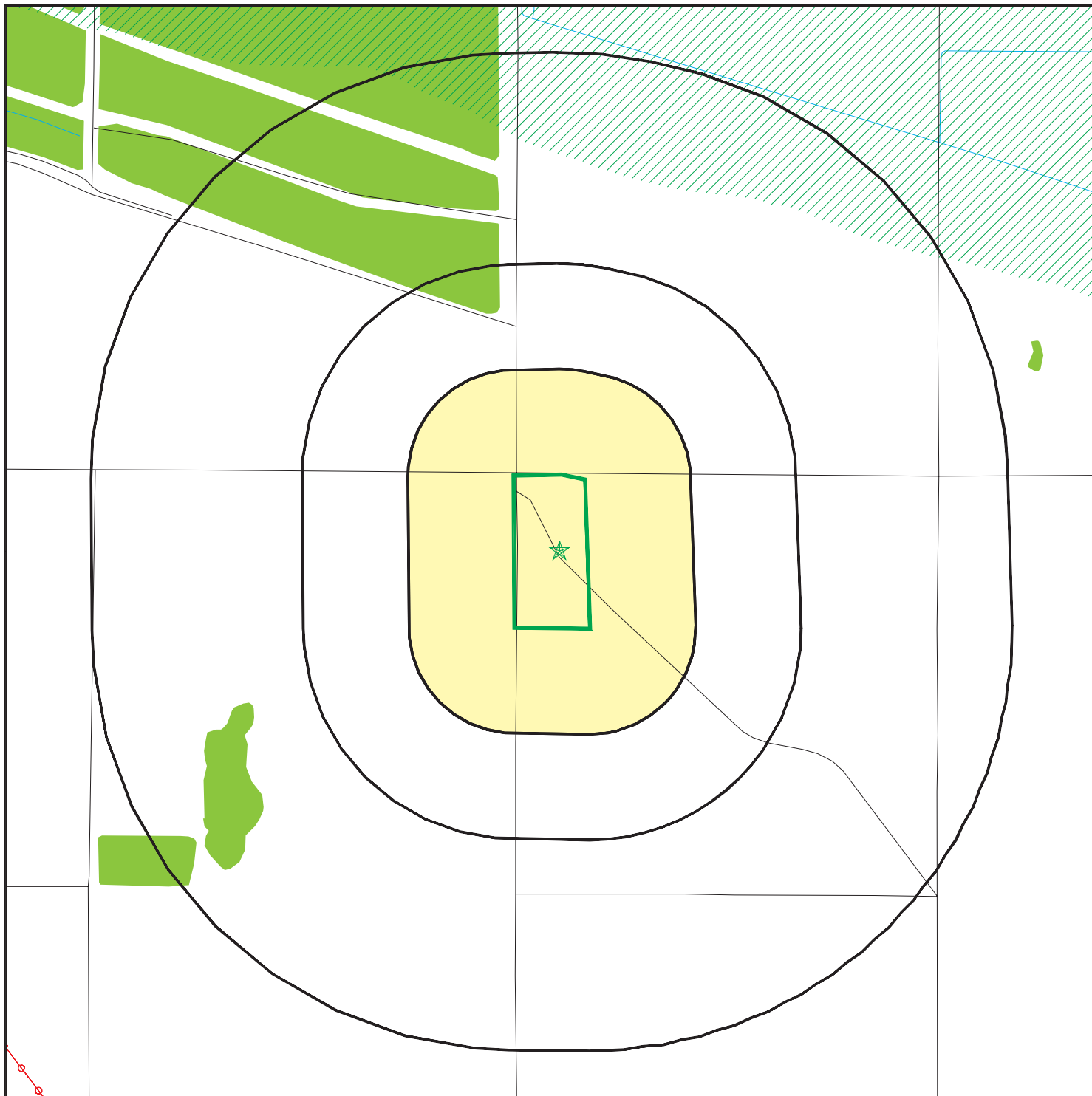
Surrounding sites were not identified.














Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 06903651.2R



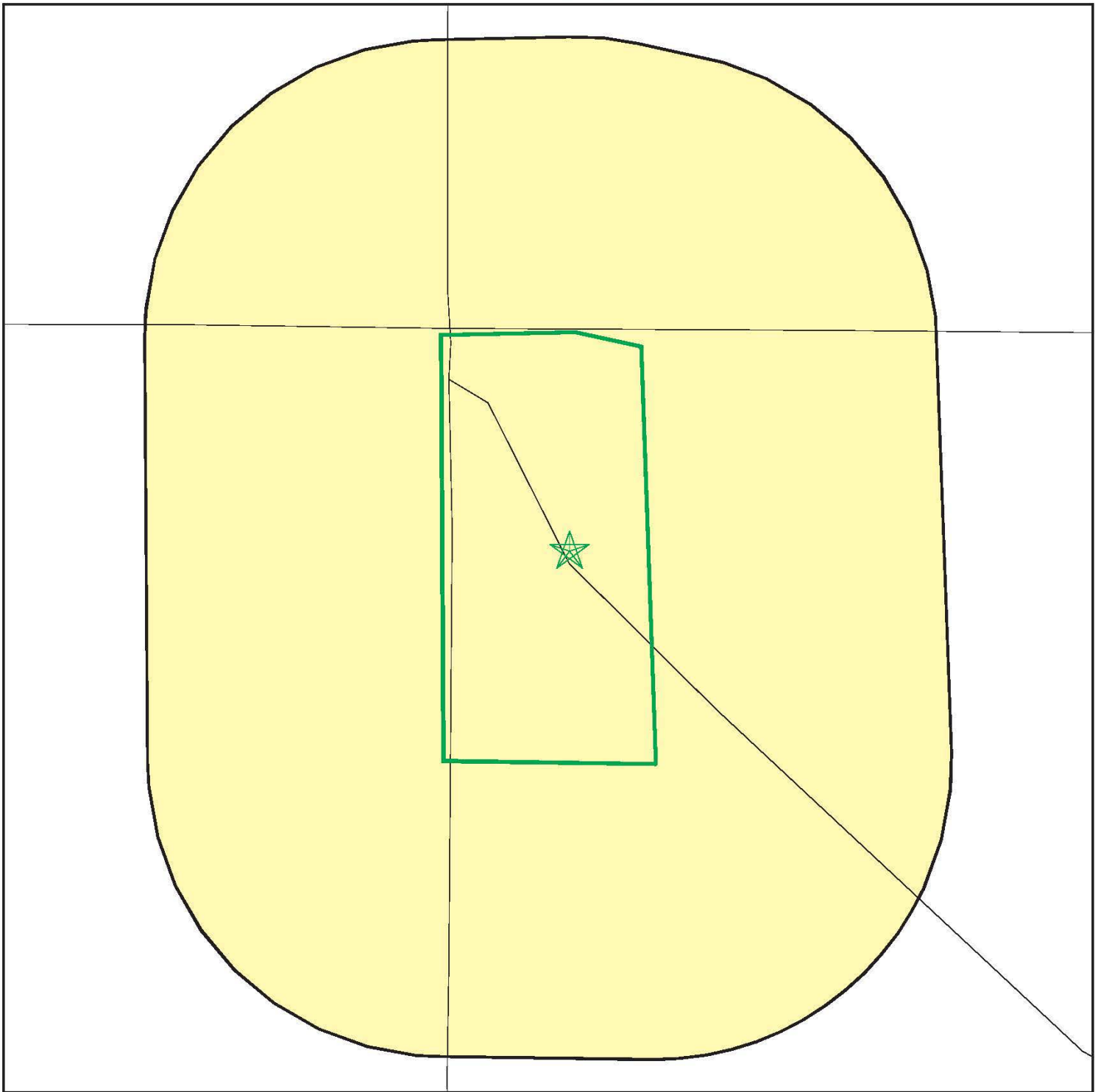
-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Utica Solar
 ADDRESS: Not Reported
 Kettleman City CA 93239
 LAT/LONG: 35.931434 / 119.85939

CLIENT: MooreTwining Associates, Inc.
 CONTACT: Katie Lister
 INQUIRY #: 06903651.2r
 DATE: March 17, 2022 6:18 pm

DETAIL MAP - 06903651.2R



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



-  Indian Reservations BIA
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Utica Solar
 ADDRESS: Not Reported
 Kettleman City CA 93239
 LAT/LONG: 35.931434 / 119.85939

CLIENT: MooreTwining Associates, Inc.
 CONTACT: Katie Lister
 INQUIRY #: 06903651.2r
 DATE: March 17, 2022 6:18 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Lists of Federal NPL (Superfund) sites</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Lists of Federal Delisted NPL sites</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Lists of Federal CERCLA sites with NFRAP</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA facilities undergoing Corrective Action</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Lists of Federal RCRA TSD facilities</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA generators</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>Lists of state- and tribal (Superfund) equivalent sites</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>Lists of state- and tribal hazardous waste facilities</i>								
ENVIROSTOR	1.000		0	0	0	0	NR	0
<i>Lists of state and tribal landfills and solid waste disposal facilities</i>								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<i>Lists of state and tribal leaking storage tanks</i>								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal registered storage tanks</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>Lists of state and tribal voluntary cleanup sites</i>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal brownfield sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: N/A
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: N/A
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: 800-424-9346
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/25/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021	Source: EPA
Date Data Arrived at EDR: 09/15/2021	Telephone: 800-424-9346
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/15/2021	Source: Department of the Navy
Date Data Arrived at EDR: 11/16/2021	Telephone: 843-820-7326
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/07/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/23/2022
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/19/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/19/2021	Telephone: 703-603-0695
Date Made Active in Reports: 02/14/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/19/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/19/2021	Telephone: 703-603-0695
Date Made Active in Reports: 02/14/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2021

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 03/01/2022

Telephone: 202-267-2180

Date Made Active in Reports: 03/10/2022

Last EDR Contact: 03/01/2022

Number of Days to Update: 9

Next Scheduled EDR Contact: 04/04/2022

Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/25/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 10/26/2021

Telephone: 916-323-3400

Date Made Active in Reports: 01/14/2022

Last EDR Contact: 01/25/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/09/2022

Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/25/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 10/26/2021

Telephone: 916-323-3400

Date Made Active in Reports: 01/14/2022

Last EDR Contact: 01/25/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/09/2022

Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/08/2021

Source: Department of Resources Recycling and Recovery

Date Data Arrived at EDR: 11/09/2021

Telephone: 916-341-6320

Date Made Active in Reports: 01/28/2022

Last EDR Contact: 02/08/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/23/2022

Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2021	Source: EPA, Region 5
Date Data Arrived at EDR: 11/15/2021	Telephone: 312-886-7439
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/12/2021	Source: EPA Region 8
Date Data Arrived at EDR: 11/15/2021	Telephone: 303-312-6271
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/12/2021	Source: EPA Region 7
Date Data Arrived at EDR: 11/15/2021	Telephone: 913-551-7003
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/12/2021	Source: EPA Region 6
Date Data Arrived at EDR: 11/15/2021	Telephone: 214-665-6597
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021	Source: EPA Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-8677
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 90	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 03/02/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/12/2021	Source: EPA Region 10
Date Data Arrived at EDR: 11/15/2021	Telephone: 206-553-2857
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/14/2021	Source: EPA, Region 1
Date Data Arrived at EDR: 11/15/2021	Telephone: 617-918-1313
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021	Source: EPA Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-6136
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 02/09/2022
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/12/2021	Source: EPA Region 6
Date Data Arrived at EDR: 11/15/2021	Telephone: 214-665-7591
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-9424
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 90	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/15/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 11/23/2021
Number of Days to Update: 12

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 11/16/2021	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/18/2021	Telephone: 202-307-1000
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/25/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/26/2021	Telephone: 916-323-3400
Date Made Active in Reports: 01/14/2022	Last EDR Contact: 01/25/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/09/2022
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/20/2021	Telephone: 916-255-6504
Date Made Active in Reports: 04/08/2021	Last EDR Contact: 01/13/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/18/2021	Source: CalEPA
Date Data Arrived at EDR: 10/19/2021	Telephone: 916-323-2514
Date Made Active in Reports: 01/12/2022	Last EDR Contact: 01/19/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Quarterly

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/24/2022
Date Data Arrived at EDR: 02/25/2022
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 11/30/2021	Source: DTSC and SWRCB
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-323-3400
Date Made Active in Reports: 02/16/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/15/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/16/2021	Telephone: 202-366-4555
Date Made Active in Reports: 03/10/2022	Last EDR Contact: 12/16/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/30/2021	Source: Office of Emergency Services
Date Data Arrived at EDR: 10/19/2021	Telephone: 916-845-8400
Date Made Active in Reports: 01/12/2022	Last EDR Contact: 01/19/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/26/2021	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 11/16/2021	Telephone: 202-528-4285
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/15/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021	Source: USGS
Date Data Arrived at EDR: 07/13/2021	Telephone: 888-275-8747
Date Made Active in Reports: 03/09/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 239	Next Scheduled EDR Contact: 04/25/2022
	Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 01/07/2022
Number of Days to Update: 574	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/01/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/03/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/18/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 82

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: 202-564-6023
Date Made Active in Reports: 02/25/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 22	Next Scheduled EDR Contact: 05/16/2022
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 01/07/2022
Number of Days to Update: 73	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 12/29/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/29/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/24/2021	Telephone: 301-415-7169
Date Made Active in Reports: 11/19/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020	Source: Department of Energy
Date Data Arrived at EDR: 11/30/2021	Telephone: 202-586-8719
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 02/28/2022
Number of Days to Update: 251	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 02/04/2022
Number of Days to Update: 96	Next Scheduled EDR Contact: 05/16/2022
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 12/27/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/08/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/13/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 89

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/03/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 90

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/03/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Administration
Telephone: 202-693-9424
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/02/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/14/2021
Date Data Arrived at EDR: 12/15/2021
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 85

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/04/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 95

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 202-564-0527
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 02/22/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/01/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/04/2022	Telephone: 202-564-2280
Date Made Active in Reports: 01/10/2022	Last EDR Contact: 01/04/2022
Number of Days to Update: 6	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/15/2021	Source: EPA
Date Data Arrived at EDR: 11/15/2021	Telephone: 800-385-6164
Date Made Active in Reports: 02/01/2022	Last EDR Contact: 02/17/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/16/2021	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 12/16/2021	Telephone: 916-323-3400
Date Made Active in Reports: 03/03/2022	Last EDR Contact: 12/16/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 05/14/2019	Telephone: 925-454-2361
Date Made Active in Reports: 07/17/2019	Last EDR Contact: 02/08/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 05/23/2022
	Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 11/17/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/03/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/05/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/18/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 80

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/05/2021
Date Made Active in Reports: 12/22/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/06/2021	Source: Department of Conservation
Date Data Arrived at EDR: 12/07/2021	Telephone: 916-322-1080
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/18/2021	Source: Department of Public Health
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-558-1784
Date Made Active in Reports: 02/17/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/09/2021	Telephone: 916-445-9379
Date Made Active in Reports: 01/27/2022	Last EDR Contact: 02/08/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 05/23/2022
	Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 11/30/2021	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-445-4038
Date Made Active in Reports: 02/17/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 11/29/2021	Source: Department of Conservation
Date Data Arrived at EDR: 11/29/2021	Telephone: 916-323-3836
Date Made Active in Reports: 02/11/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 74	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/13/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/14/2021	Telephone: 916-445-3846
Date Made Active in Reports: 03/03/2022	Last EDR Contact: 03/09/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/26/2022
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/03/2021	Source: Department of Conservation
Date Data Arrived at EDR: 12/07/2021	Telephone: 916-445-2408
Date Made Active in Reports: 02/24/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 12/06/2021	Source: State Water Resource Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 07/01/2021	Telephone: 559-445-5577
Date Made Active in Reports: 09/29/2021	Last EDR Contact: 01/07/2022
Number of Days to Update: 90	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 02/11/2022
Number of Days to Update: 9	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 03/16/2022
Number of Days to Update: 13	Next Scheduled EDR Contact: 07/04/2022
	Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/06/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014	Source: EPA
Date Data Arrived at EDR: 01/06/2015	Telephone: 202-564-2496
Date Made Active in Reports: 05/06/2015	Last EDR Contact: 12/29/2021
Number of Days to Update: 120	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018	Source: USGS
Date Data Arrived at EDR: 10/21/2019	Telephone: 703-648-6533
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 02/24/2022
Number of Days to Update: 3	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/01/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 75

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 11/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 10/22/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 85

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA DEL NORTE: CUPA Facility List Cupa Facility list

Date of Government Version: 10/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 12/01/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 12/21/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 84

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List

A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 10/08/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 12/16/2021
Number of Days to Update: 58	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 10/12/2021	Source: Los Angeles County Department of Public Works
Date Data Arrived at EDR: 10/13/2021	Telephone: 626-458-6973
Date Made Active in Reports: 01/04/2022	Last EDR Contact: 01/07/2022
Number of Days to Update: 83	Next Scheduled EDR Contact: 04/25/2022
	Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 06/28/2021	Last EDR Contact: 12/17/2021
Number of Days to Update: 11	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 09/14/2021	Last EDR Contact: 12/17/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 04/04/2022
	Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021	Source: Community Health Services
Date Data Arrived at EDR: 07/09/2021	Telephone: 323-890-7806
Date Made Active in Reports: 09/29/2021	Last EDR Contact: 01/13/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 04/24/2022
	Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 01/07/2022
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/25/2022
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 04/23/2019	Telephone: 562-570-2563
Date Made Active in Reports: 06/27/2019	Last EDR Contact: 01/13/2022
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 04/28/2021	Telephone: 310-618-2973
Date Made Active in Reports: 07/13/2021	Last EDR Contact: 01/13/2022
Number of Days to Update: 76	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020	Source: Madera County Environmental Health
Date Data Arrived at EDR: 08/12/2020	Telephone: 559-675-7823
Date Made Active in Reports: 10/23/2020	Last EDR Contact: 02/11/2022
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 12/20/2021
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021	Source: Department of Public Health
Date Data Arrived at EDR: 11/18/2021	Telephone: 707-463-4466
Date Made Active in Reports: 11/22/2021	Last EDR Contact: 02/17/2022
Number of Days to Update: 4	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Annually

MERCED COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA MERCED: CUPA Facility List CUPA facility list.

Date of Government Version: 11/24/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 03/04/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 10/27/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/04/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 81

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/29/2021
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 85

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 77

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/25/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 79

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA STANISLAUS: CUPA Facility List Cupa facility list

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List Cupa facility list

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018	Source: Divison of Environmental Health
Date Data Arrived at EDR: 04/25/2018	Telephone: 209-533-5633
Date Made Active in Reports: 06/25/2018	Last EDR Contact: 01/13/2022
Number of Days to Update: 61	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/29/2021	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 10/26/2021	Telephone: 805-654-2813
Date Made Active in Reports: 01/13/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 12/20/2021
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 02/07/2022
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/23/2022
	Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/29/2021	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 10/21/2021	Telephone: 805-654-2813
Date Made Active in Reports: 01/13/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/29/2021	Source: Environmental Health Division
Date Data Arrived at EDR: 12/07/2021	Telephone: 805-654-2813
Date Made Active in Reports: 02/24/2022	Last EDR Contact: 03/08/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/20/2022
	Data Release Frequency: Quarterly

YOLO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/23/2021	Source: Yolo County Department of Health
Date Data Arrived at EDR: 09/28/2021	Telephone: 530-666-8646
Date Made Active in Reports: 12/15/2021	Last EDR Contact: 12/20/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 10/26/2021	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 10/27/2021	Telephone: 530-749-7523
Date Made Active in Reports: 01/20/2022	Last EDR Contact: 01/24/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/09/2022
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2021	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 11/12/2021	Telephone: 860-424-3375
Date Made Active in Reports: 02/01/2022	Last EDR Contact: 02/11/2022
Number of Days to Update: 81	Next Scheduled EDR Contact: 05/23/2022
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 01/07/2022
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 10/29/2021	Telephone: 518-402-8651
Date Made Active in Reports: 01/19/2022	Last EDR Contact: 01/28/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 05/09/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/14/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

UTICA SOLAR
NOT REPORTED
KETTLEMAN CITY, CA 93239

TARGET PROPERTY COORDINATES

Latitude (North):	35.931434 - 35° 55' 53.16"
Longitude (West):	119.85939 - 119° 51' 33.80"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	242027.3
UTM Y (Meters):	3979922.5
Elevation:	217 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	11998655 DUDLEY RIDGE, CA
Version Date:	2018
West Map:	11998683 LOS VIEJOS, CA
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

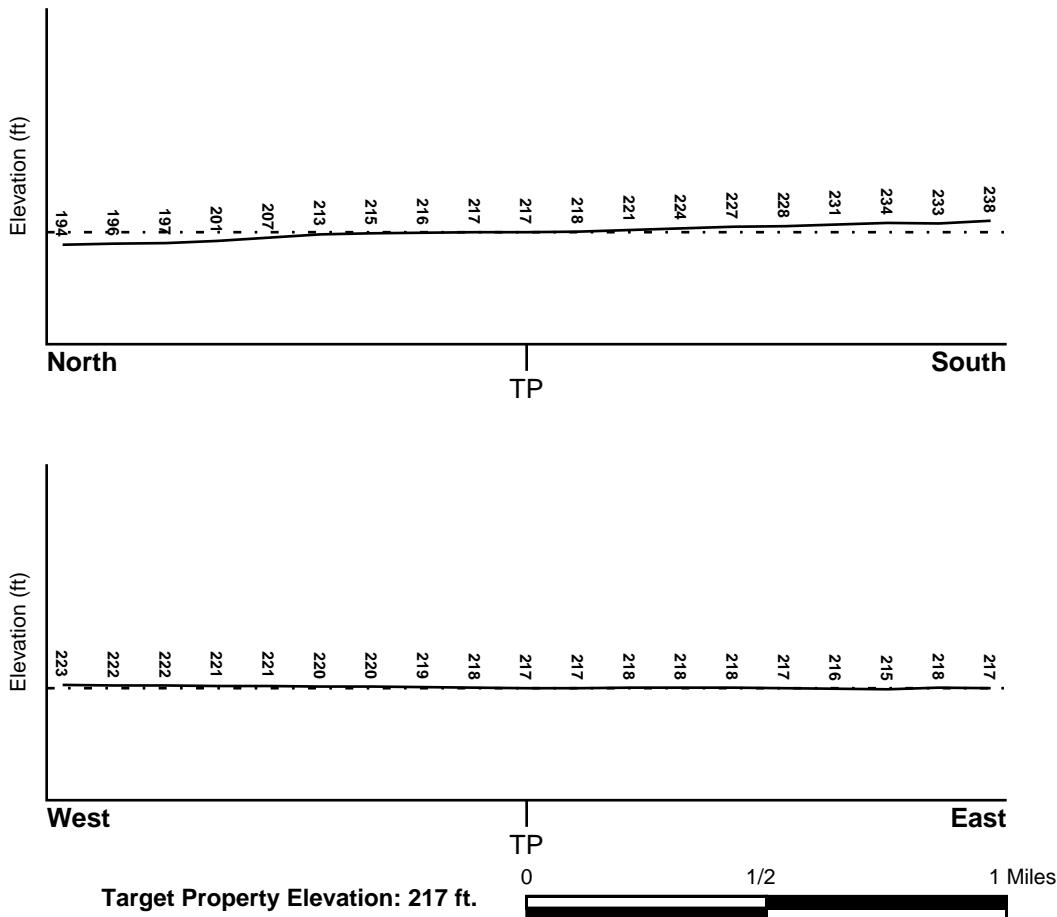
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06031C0650C	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06031C0625C	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
DUDLEY RIDGE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

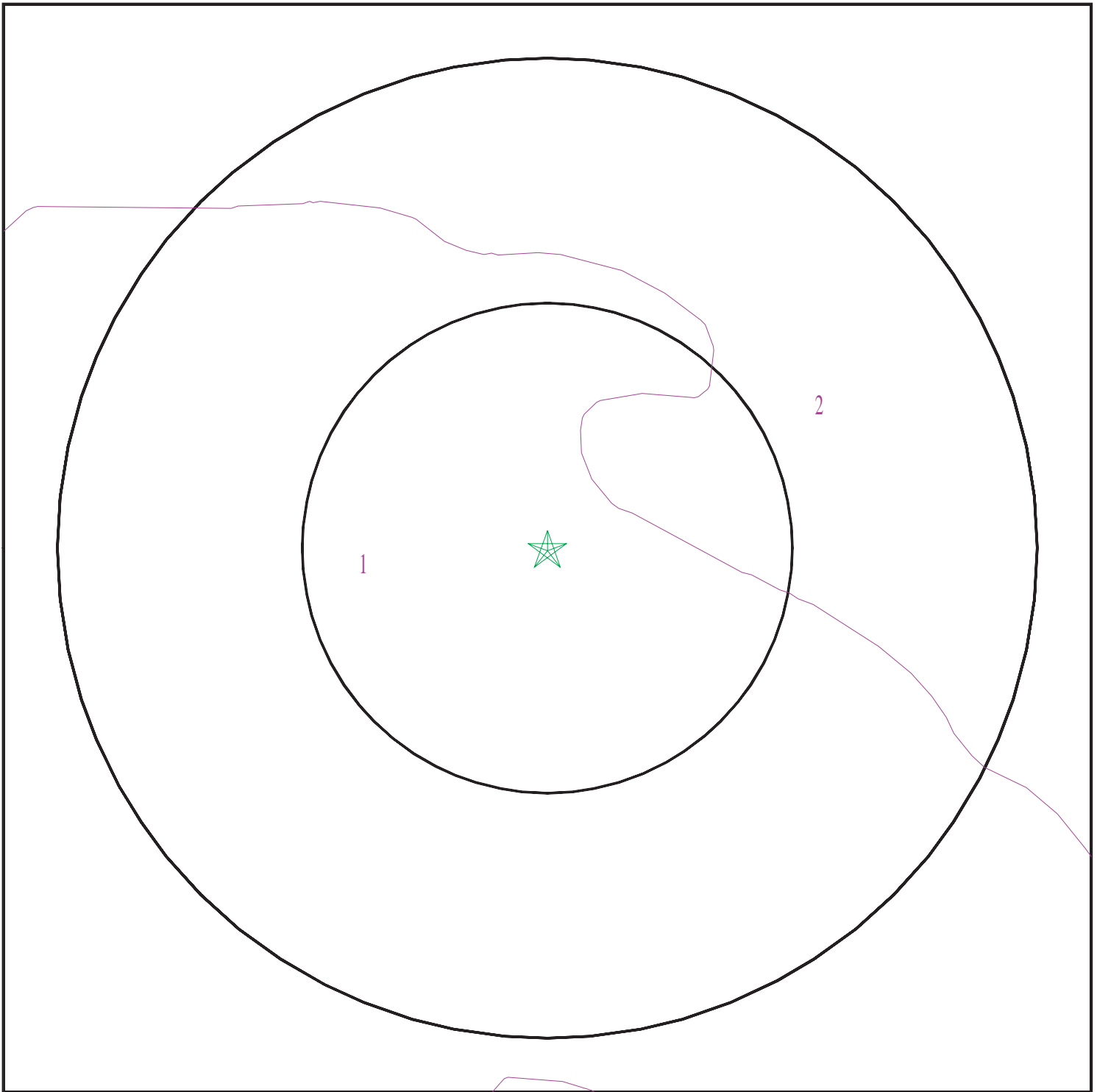
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 06903651.2r



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City CA 93239
LAT/LONG: 35.931434 / 119.85939

CLIENT: MooreTwining Associates, Inc.
CONTACT: Katie Lister
INQUIRY #: 06903651.2r
DATE: March 17, 2022 6:18 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MILHAM

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches		Not reported	Not reported	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
2	14 inches	31 inches		Not reported	Not reported	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
3	31 inches	59 inches		Not reported	Not reported	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: RAMBLA

Soil Surface Texture:
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 9 Min: 7.9
2	14 inches	18 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 9 Min: 7.9
3	18 inches	44 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 9 Min: 7.9
4	44 inches	59 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 9 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

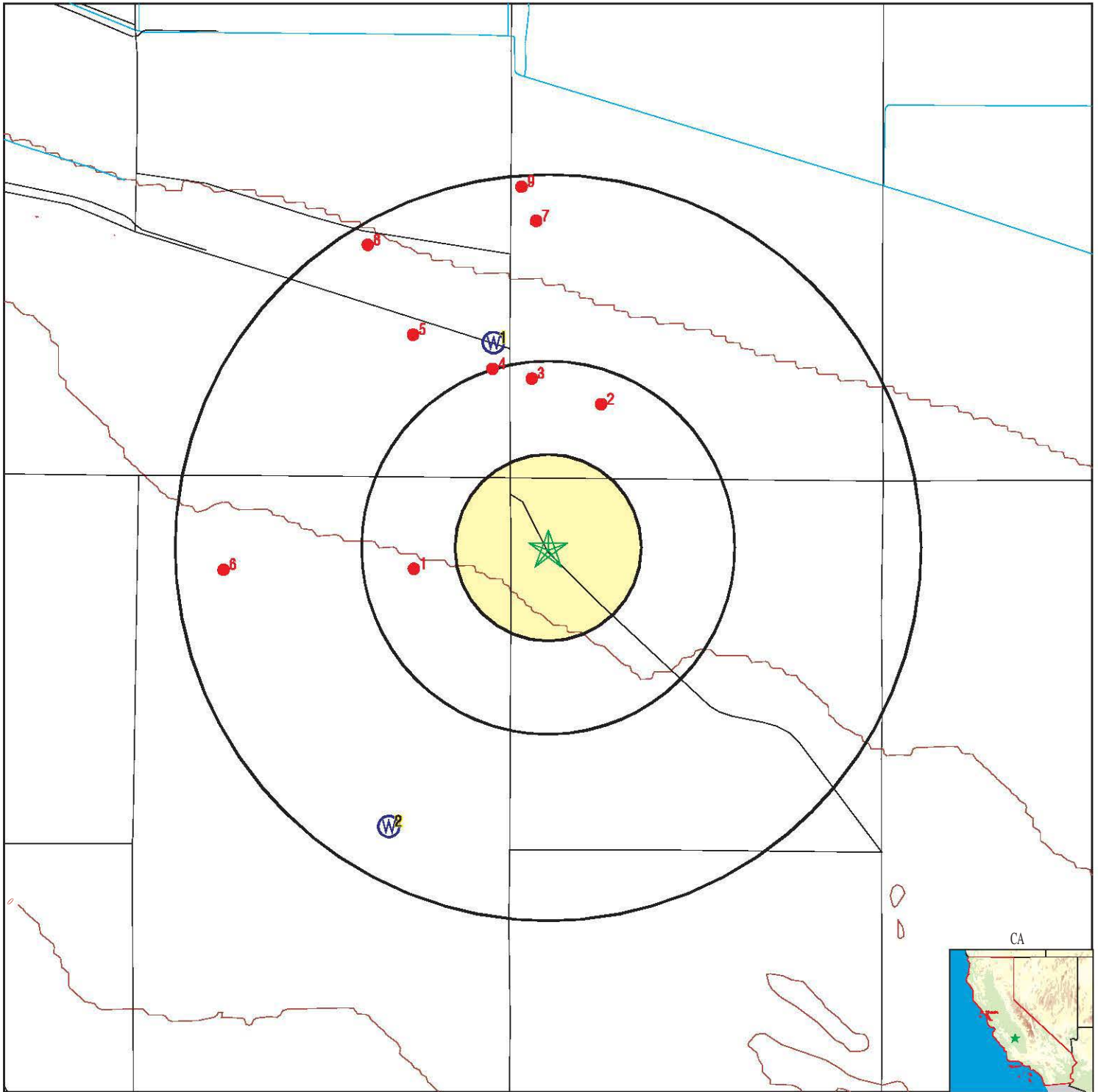
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CADWR9000021954	1/2 - 1 Mile NNW
2	CADWR9000021898	1/2 - 1 Mile SSW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG14000083969	1/4 - 1/2 Mile West
2	CAOG14000012794	1/4 - 1/2 Mile NNE
3	CAOG14000083973	1/4 - 1/2 Mile North
4	CAOG14000083966	1/2 - 1 Mile NNW
5	CAOG14000083948	1/2 - 1 Mile NNW
6	CAOG14000083955	1/2 - 1 Mile West
7	CAOG14000083968	1/2 - 1 Mile North
8	CAOG14000083978	1/2 - 1 Mile NNW
9	CAOG14000083972	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 06903651.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Utica Solar
 ADDRESS: Not Reported
 Kettleman City CA 93239
 LAT/LONG: 35.931434 / 119.85939

CLIENT: MooreTwining Associates, Inc.
 CONTACT: Katie Lister
 INQUIRY #: 06903651.2r
 DATE: March 17, 2022 6:18 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
NNW
1/2 - 1 Mile
Lower

CA WELLS CADWR9000021954

State Well #:	23S19E12J001M	Station ID:	22577
Well Name:	Not Reported	Basin Name:	Tulare Lake
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

2
SSW
1/2 - 1 Mile
Higher

CA WELLS CADWR9000021898

State Well #:	23S19E13Q001M	Station ID:	22578
Well Name:	Not Reported	Basin Name:	Tulare Lake
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

West
1/4 - 1/2 Mile

OIL_GAS CAOG14000083969

API #:	0403100272	Well #:	2-13
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	S.P.	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	02/28/1957		

2

NNE
1/4 - 1/2 Mile

OIL_GAS CAOG14000012794

API #:	0403100722	Well #:	1-7
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Dudley Ridge	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	03/31/1962		

3

North
1/4 - 1/2 Mile

OIL_GAS CAOG14000083973

API #:	0403100278	Well #:	2
Well Status:	Plugged	Well Type:	Oil & Gas
Lease Name:	Dudley Ridge	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	09/28/1929		

4

NNW
1/2 - 1 Mile

OIL_GAS CAOG14000083966

API #:	0403100247	Well #:	1
Well Status:	Plugged	Well Type:	Oil & Gas
Lease Name:	Lease by R. H. Anderson & C.C. Friend		
Field Name:	Dudley Ridge Gas (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	10/09/1928

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

5

NNW

1/2 - 1 Mile

OIL_GAS

CAOG14000083948

API #:	0403100255	Well #:	1-12
Well Status:	Plugged	Well Type:	Oil & Gas
Lease Name:	Friend Anderson	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	02/18/1957		

6

West

1/2 - 1 Mile

OIL_GAS

CAOG14000083955

API #:	0403100260	Well #:	1-13
Well Status:	Plugged	Well Type:	Oil & Gas
Lease Name:	S.P.	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	09/19/1953		

7

North

1/2 - 1 Mile

OIL_GAS

CAOG14000083968

API #:	0403100270	Well #:	1-7
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Dudley Ridge Oil Co.	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	05/21/1957		

8

NNW

1/2 - 1 Mile

OIL_GAS

CAOG14000083978

API #:	0403100248	Well #:	7-12
Well Status:	Idle	Well Type:	Dry Hole
Lease Name:	VECO	Field Name:	Dudley Ridge Gas (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	10/01/1931		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

9
North
1/2 - 1 Mile

OIL_GAS CAOG14000083972

API #:	0403100275	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Lease by Pacific Oil & Gas Co.		
Field Name:	Dudley Ridge Gas (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	12/31/1923

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93239	4	0

Federal EPA Radon Zone for KINGS County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for KINGS COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.475 pCi/L	92%	8%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program

State Water Resources Control Board

Telephone: 916-341-5577

The GAMA Program is California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Health Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656


Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Utica Solar

Not Reported

Kettleman City, CA 93239

Inquiry Number: 6903651.3

March 17, 2022

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/17/22

Site Name:

Utica Solar
Not Reported
Kettleman City, CA 93239
EDR Inquiry # 6903651.3

Client Name:

MooreTwining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721
Contact: Katie Lister



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by MooreTwining Associates, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 8C9D-42F7-9A9E
PO # NA
Project Utica Solar

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 8C9D-42F7-9A9E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Utica Solar

Not Reported

Kettleman City, CA 93239

Inquiry Number: 6903651.4

March 17, 2022

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/17/22

Site Name:

Utica Solar
Not Reported
Kettleman City, CA 93239
EDR Inquiry # 6903651.4

Client Name:

MooreTwining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721
Contact: Katie Lister



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by MooreTwining Associates, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

Coordinates:

P.O.#	NA	Latitude:	35.931434 35° 55' 53" North
Project:	Utica Solar	Longitude:	-119.85939 -119° 51' 34" West
		UTM Zone:	Zone 11 North
		UTM X Meters:	242033.46
		UTM Y Meters:	3980122.70
		Elevation:	217.00' above sea level

Maps Provided:

2018
2015
2012
1954
1943
1936
1930, 1932
1914

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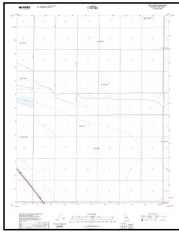
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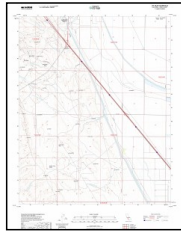
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets

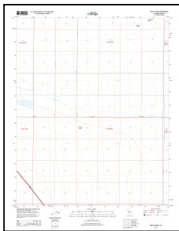


Dudley Ridge
2018
7.5-minute, 24000

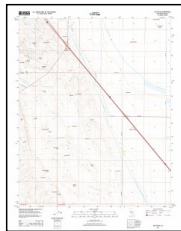


Los Viejos
2018
7.5-minute, 24000

2015 Source Sheets

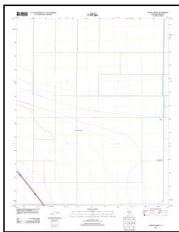


Dudley Ridge
2015
7.5-minute, 24000

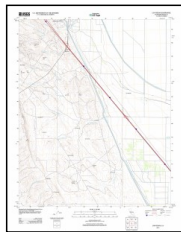


Los Viejos
2015
7.5-minute, 24000

2012 Source Sheets



Dudley Ridge
2012
7.5-minute, 24000

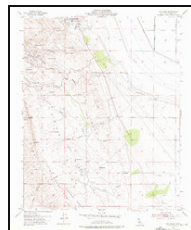


Los Viejos
2012
7.5-minute, 24000

1954 Source Sheets



Dudley Ridge
1954
7.5-minute, 24000
Aerial Photo Revised 1950



Los Viejos
1954
7.5-minute, 24000
Aerial Photo Revised 1950

Topo Sheet Key

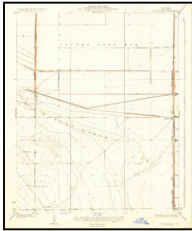
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1943 Source Sheets



La Rambla
1943
15-minute, 62500
Aerial Photo Revised 1937

1936 Source Sheets

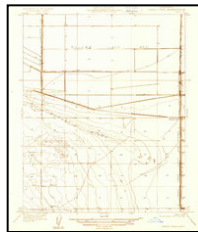


Dudley Ridge
1936
7.5-minute, 31680

1930, 1932 Source Sheets



Middle Dome
1930
7.5-minute, 31680

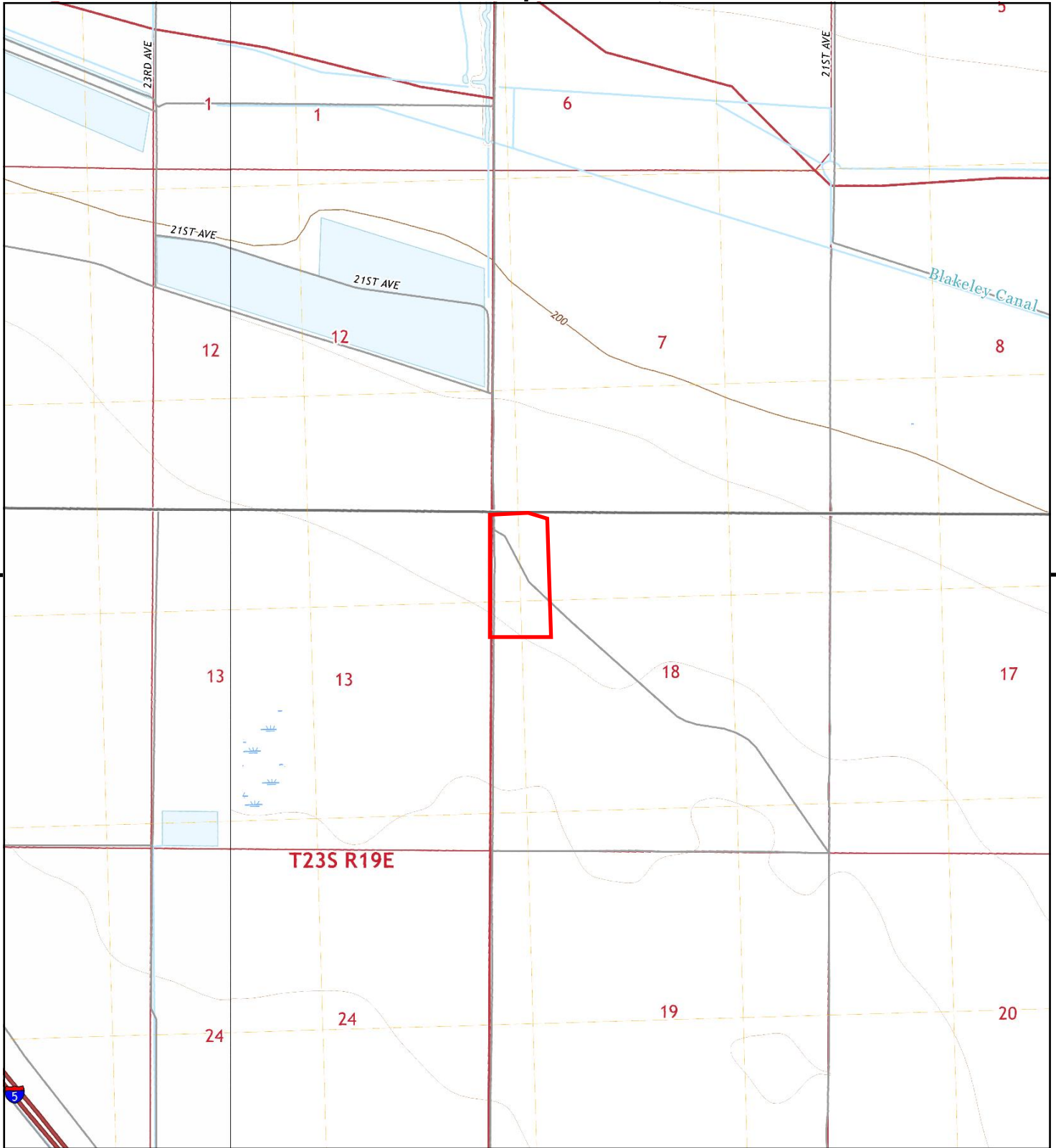


Dudley Ridge
1932
7.5-minute, 31680

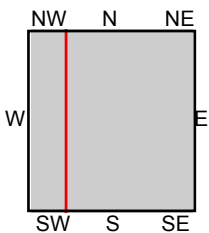
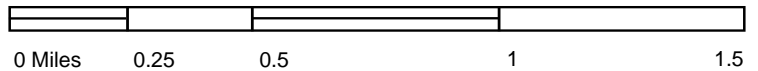
1914 Source Sheets



Lost Hills
1914
30-minute, 125000



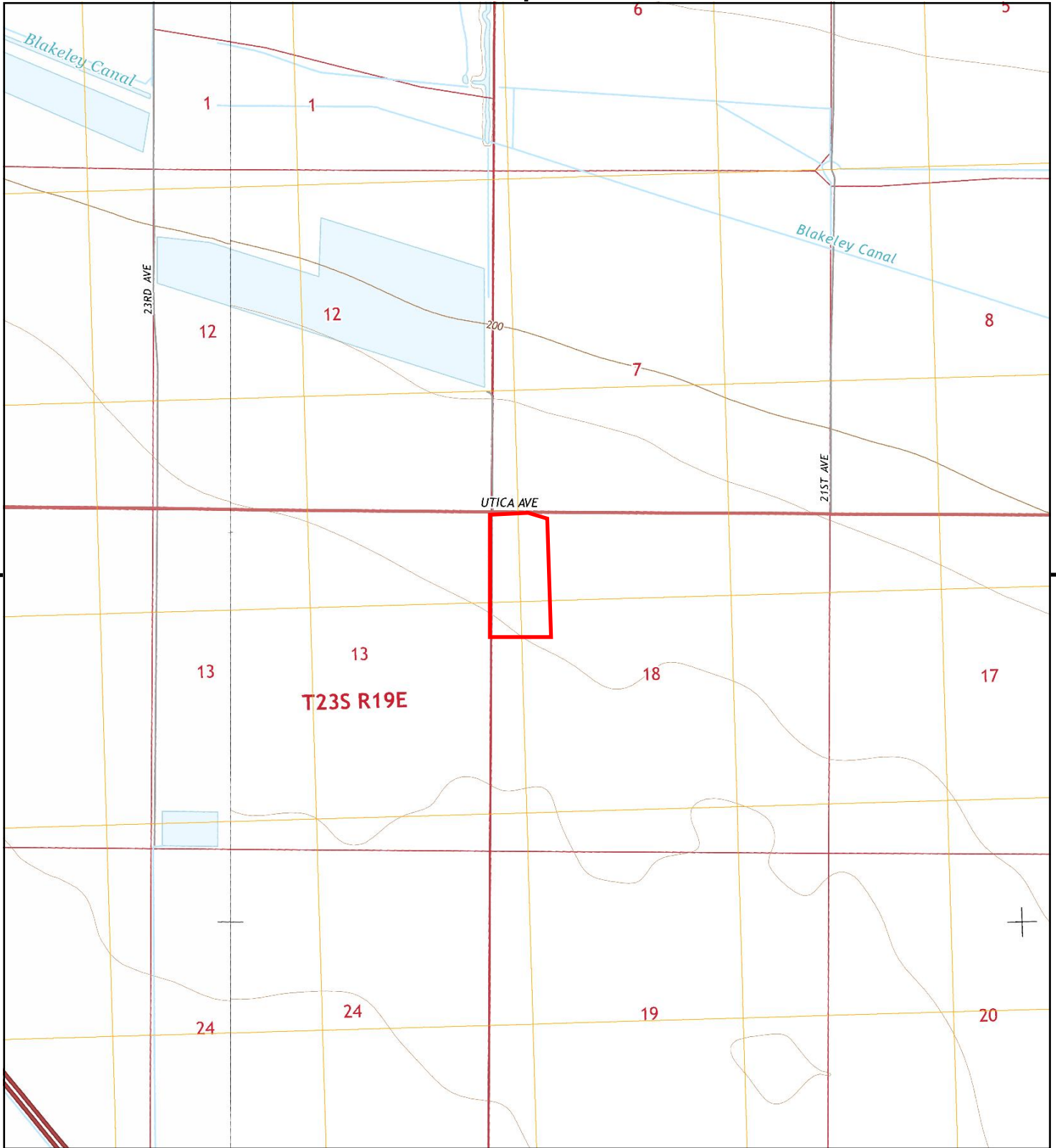
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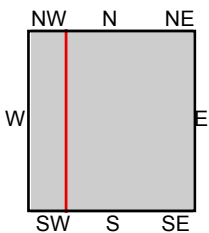
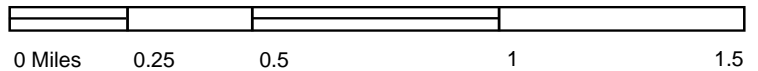
TP, Dudley Ridge, 2018, 7.5-minute
W, Los Viejos, 2018, 7.5-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.





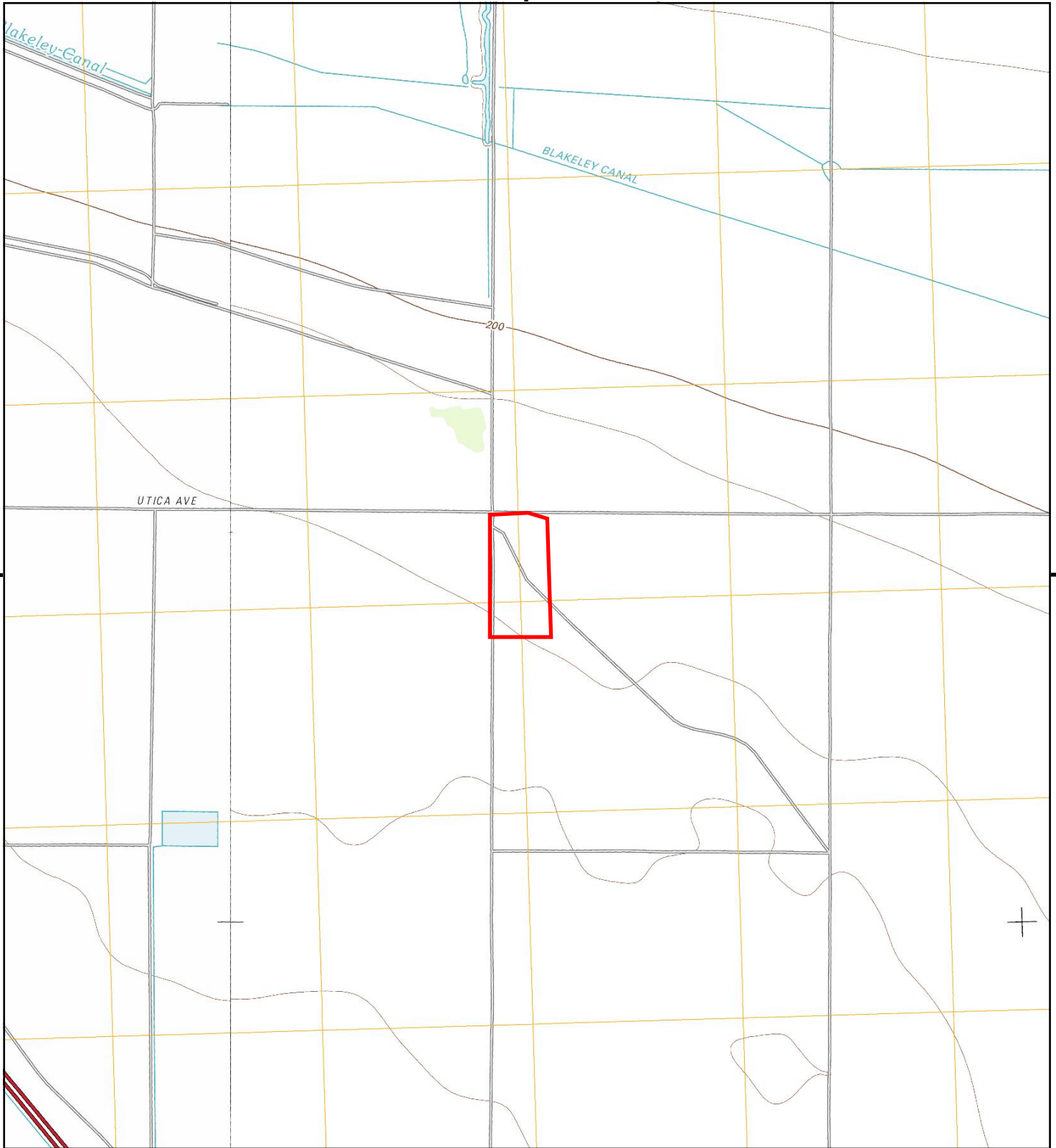
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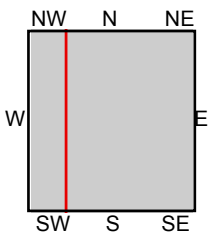
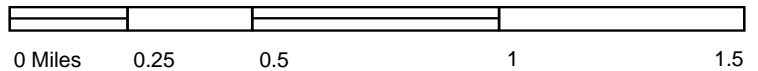
TP, Dudley Ridge, 2015, 7.5-minute
 W, Los Viejos, 2015, 7.5-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
 Kettleman City, CA 93239
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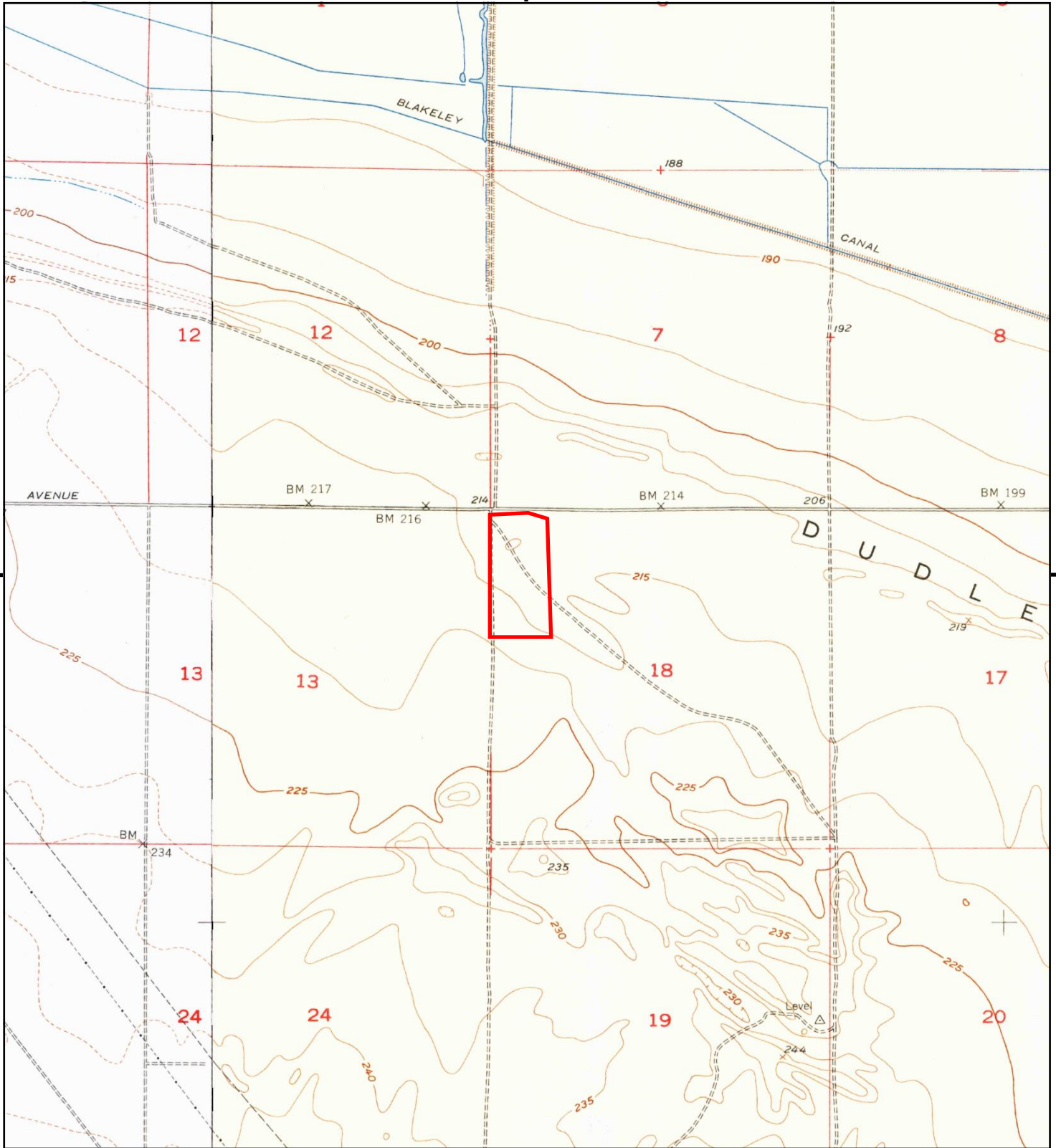
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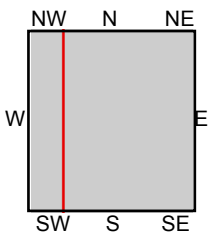
TP, Dudley Ridge, 2012, 7.5-minute
W, Los Viejos, 2012, 7.5-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.





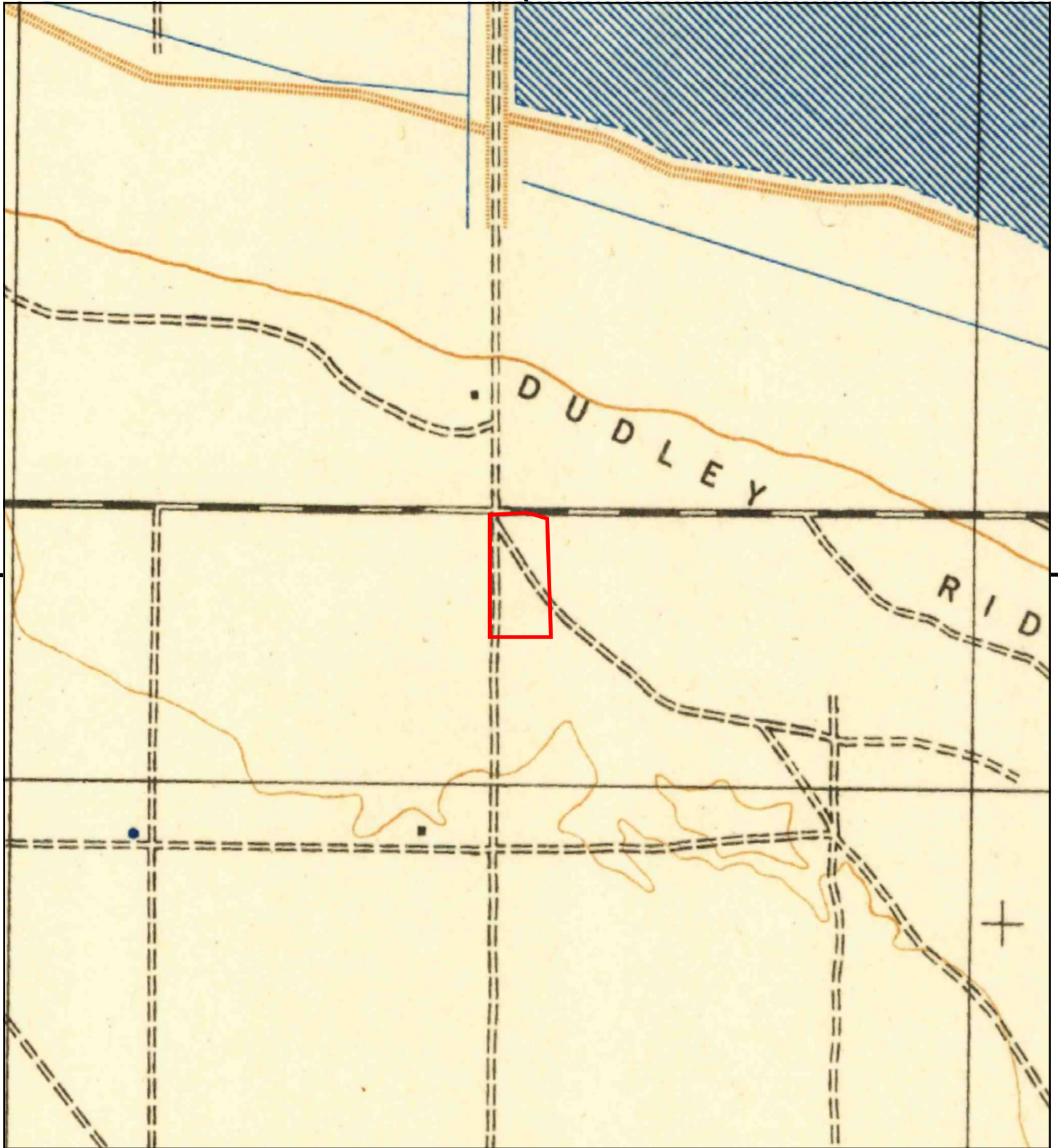
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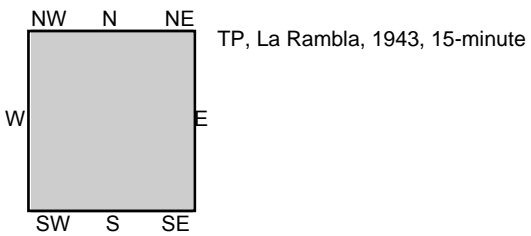
TP, Dudley Ridge, 1954, 7.5-minute
W, Los Viejos, 1954, 7.5-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.



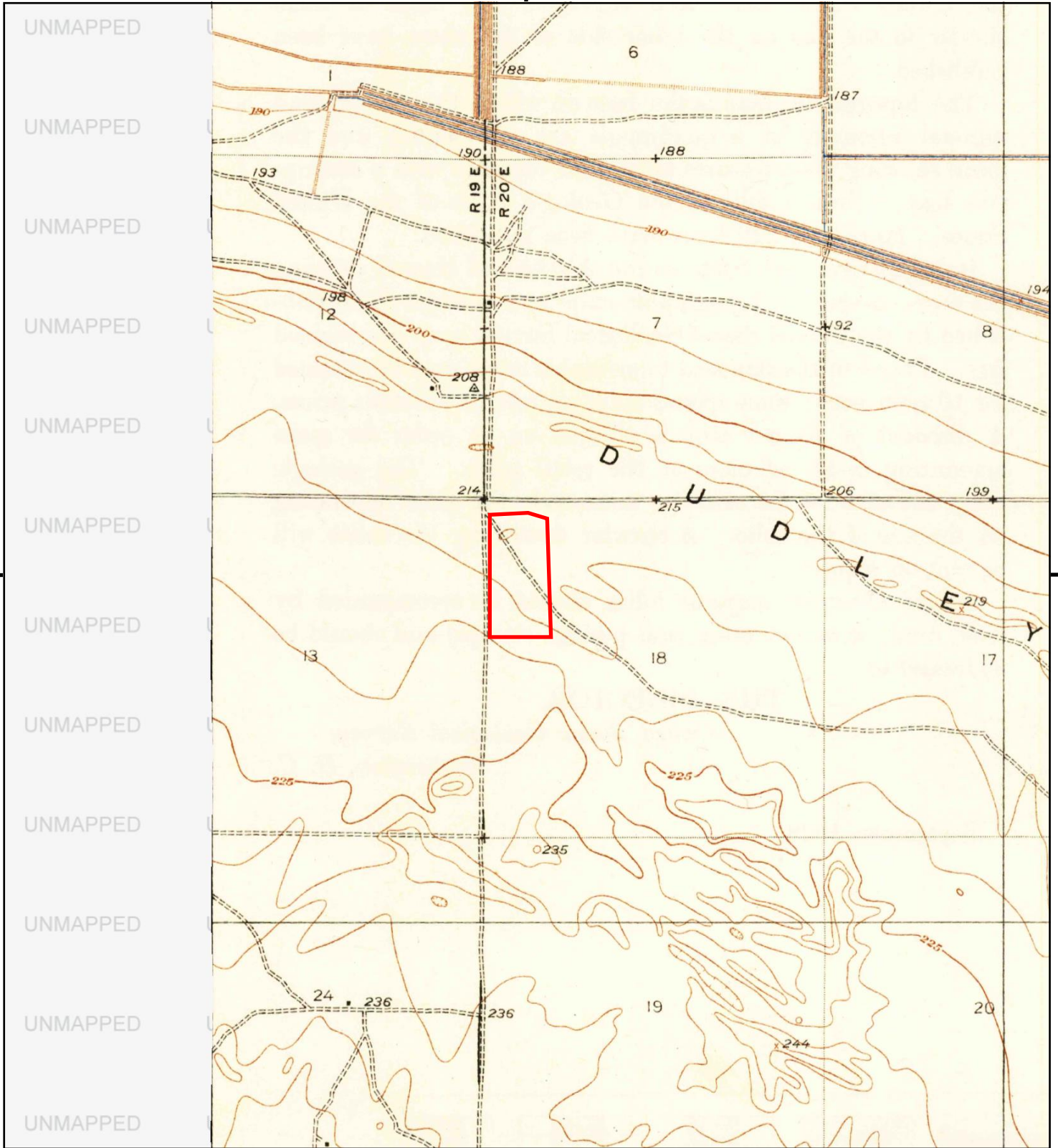


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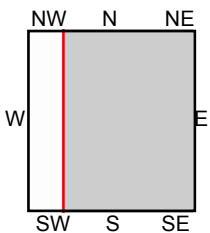
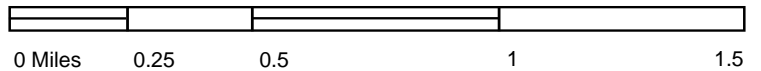


SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.





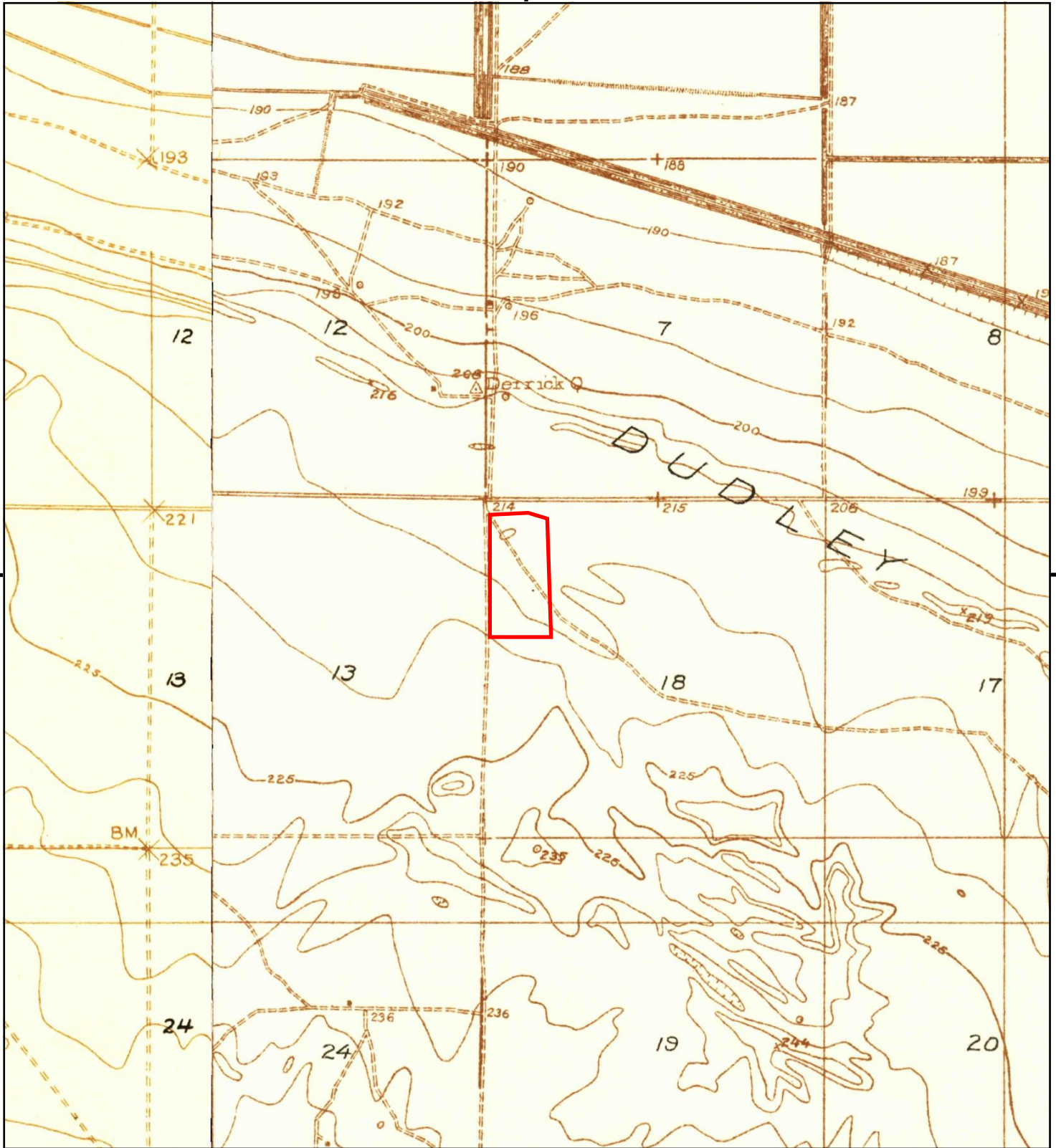
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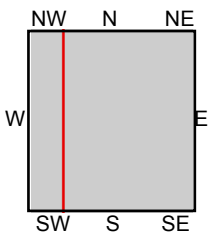
TP, Dudley Ridge, 1936, 7.5-minute

SITE NAME: Utica Solar
 ADDRESS: Not Reported
 Kettleman City, CA 93239
 CLIENT: MooreTwining Associates, Inc.





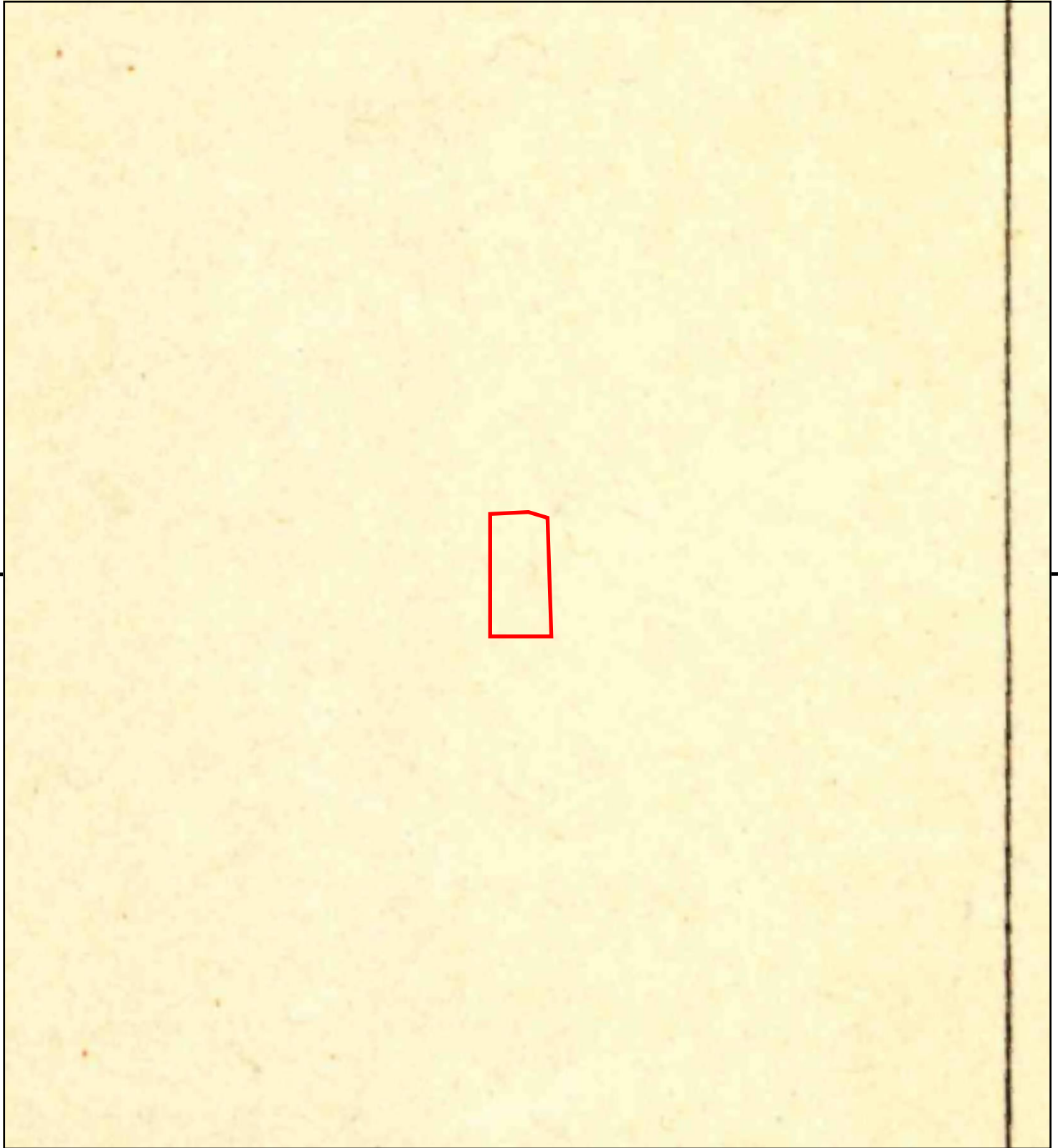
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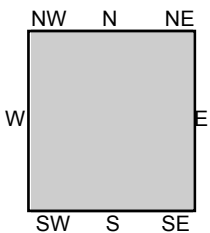
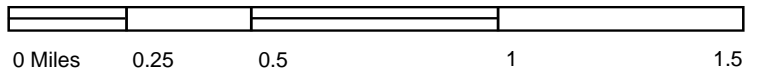
TP, Dudley Ridge, 1932, 7.5-minute
W, Middle Dome, 1930, 7.5-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.





This report includes information from the following map sheet(s).



TP, Lost Hills, 1914, 30-minute

SITE NAME: Utica Solar
ADDRESS: Not Reported
Kettleman City, CA 93239
CLIENT: MooreTwining Associates, Inc.





Utica Solar

Not Reported

Kettleman City, CA 93239

Inquiry Number: 6903651.8

March 18, 2022

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/18/22

Site Name:

Utica Solar
Not Reported
Kettleman City, CA 93239
EDR Inquiry # 6903651.8

Client Name:

MooreTwining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721
Contact: Katie Lister



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: May 02, 1994	USGS/DOQQ
1984	1"=500'	Flight Date: September 01, 1984	USDA
1976	1"=500'	Flight Date: July 01, 1976	USGS
1974	1"=500'	Flight Date: August 01, 1974	USGS
1960	1"=500'	Flight Date: April 02, 1960	USGS
1950	1"=500'	Flight Date: April 15, 1950	USDA
1940	1"=500'	Flight Date: May 21, 1940	USDA
1937	1"=500'	Flight Date: September 04, 1937	USDA

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INQUIRY #: 6903651.8

YEAR: 2016

— = 500'





INQUIRY #: 6903651.8

YEAR: 2012

— = 500'





INQUIRY #: 6903651.8

YEAR: 2009

— = 500'





INQUIRY #: 6903651.8

YEAR: 2006

— = 500'



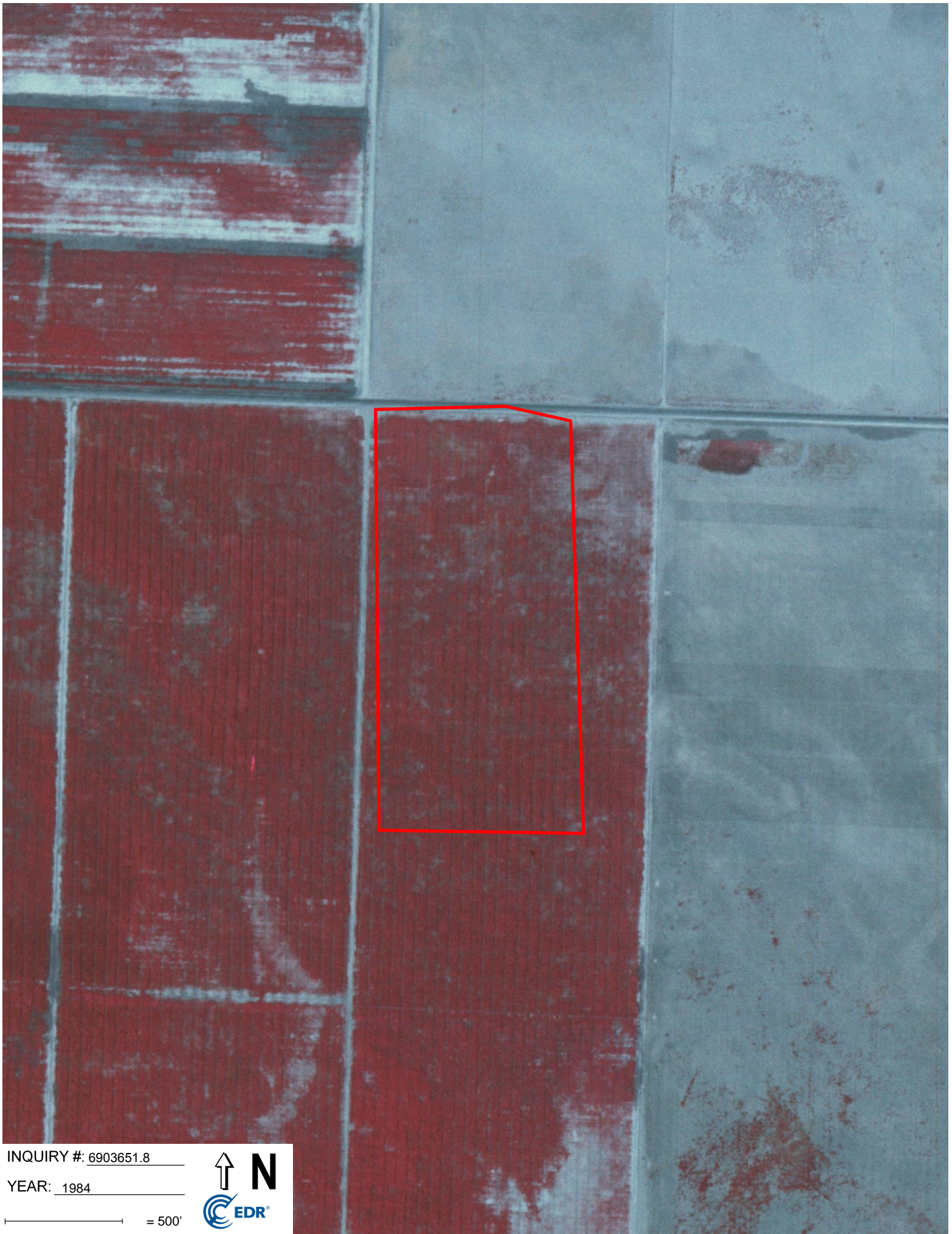


INQUIRY #: 6903651.8

YEAR: 1994

 = 500'



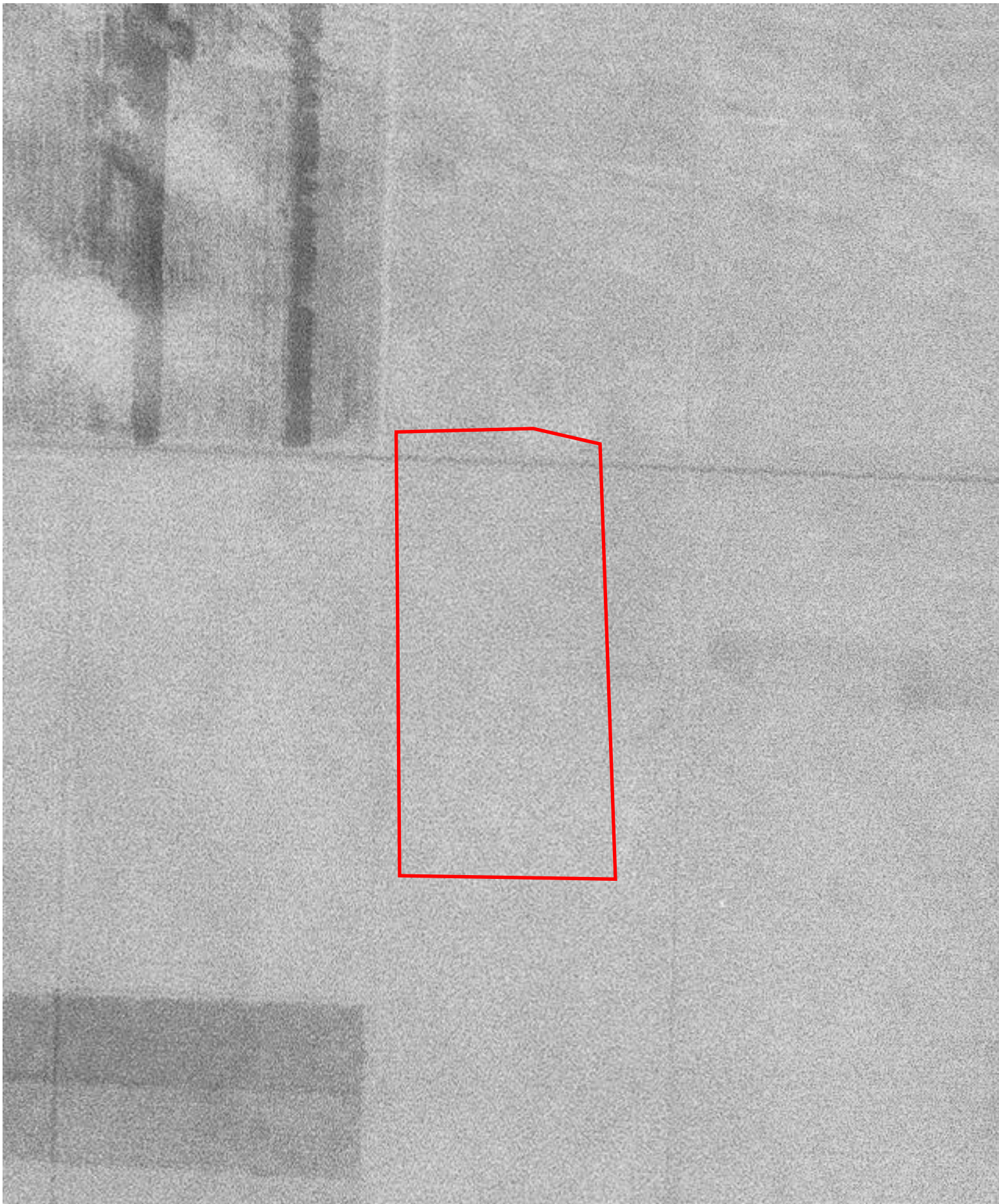


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YEAR: 1984

— = 500'



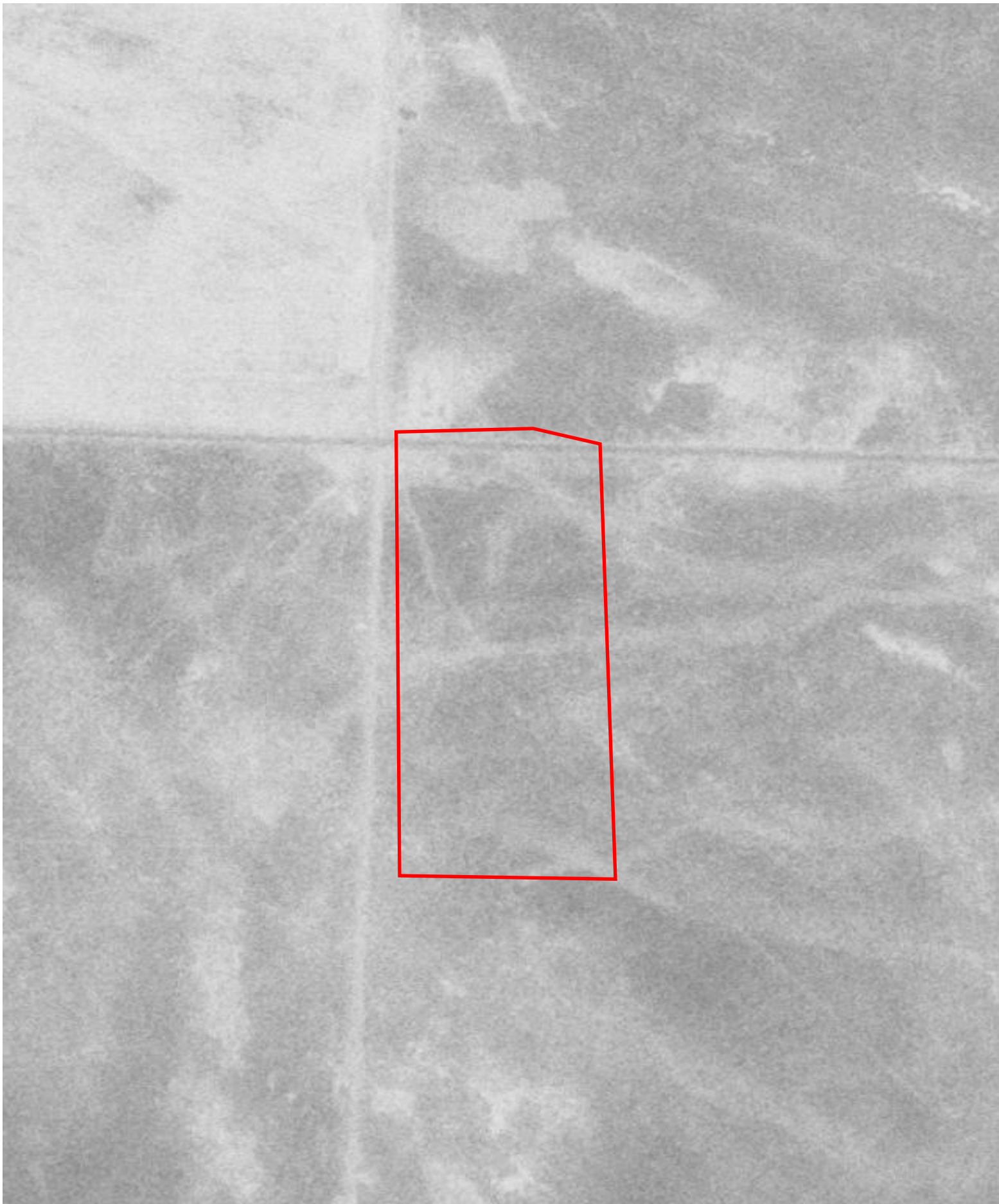


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YEAR: 1976

 = 500'



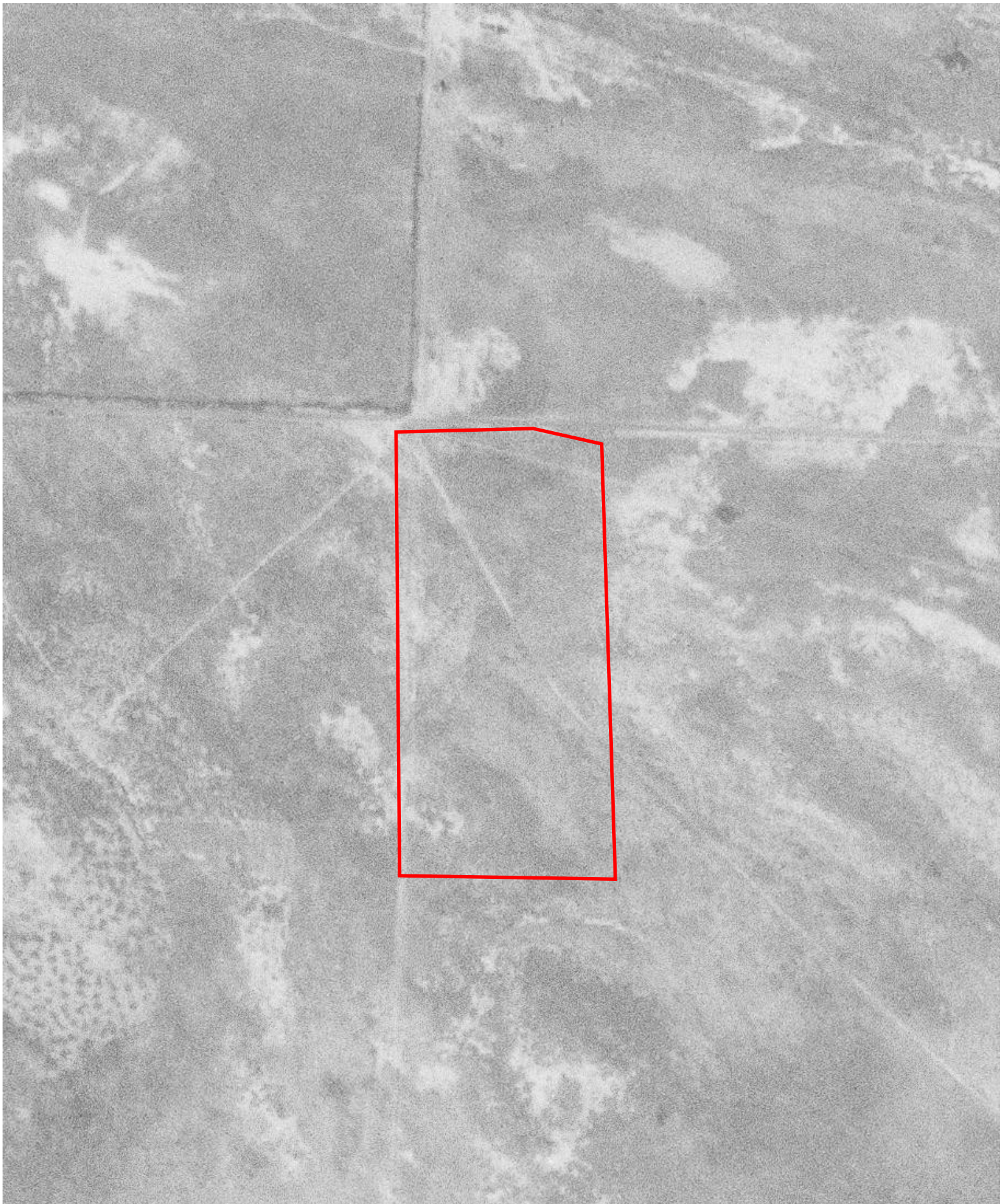


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YEAR: 1974

 = 500'



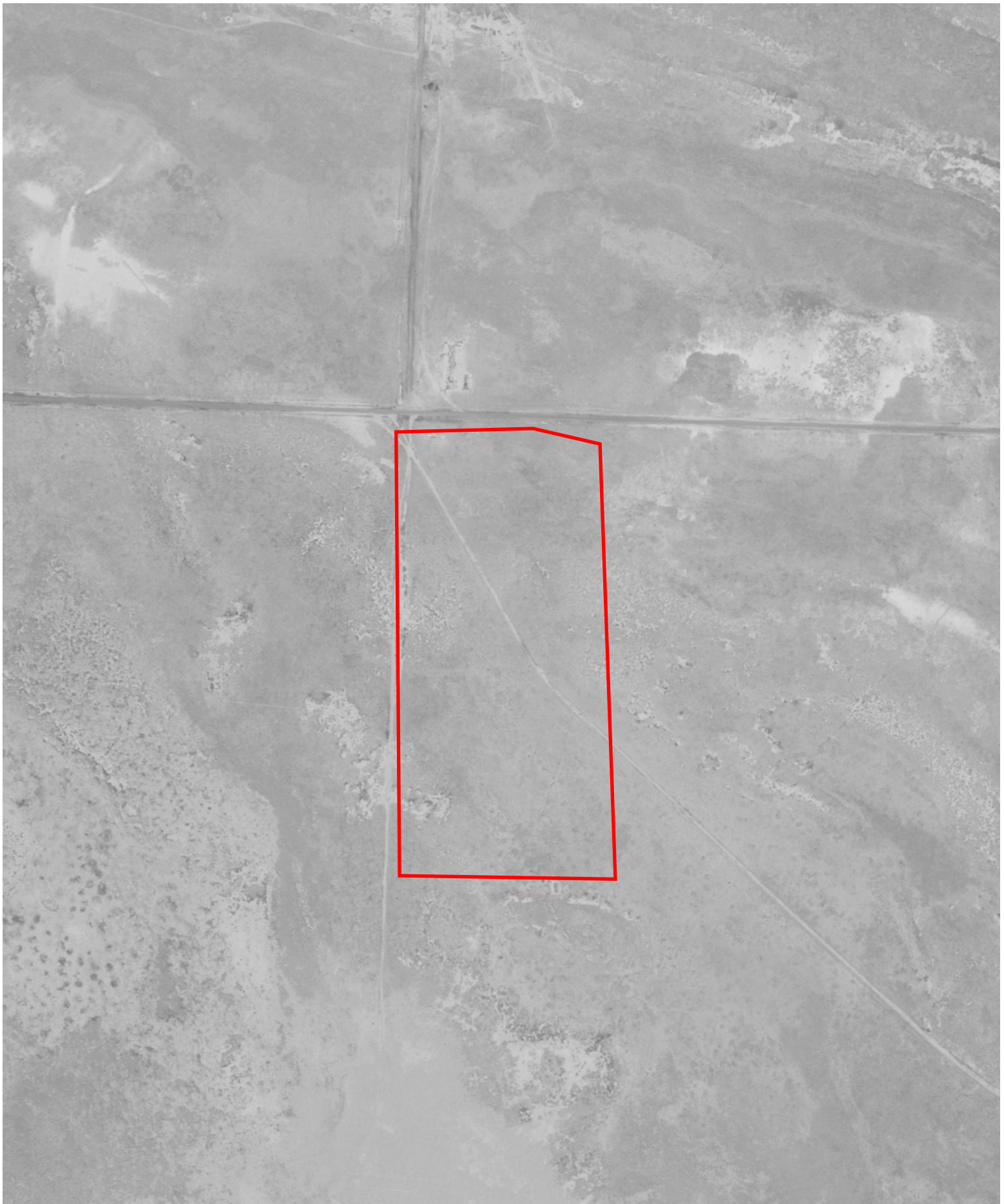


INQUIRY #: 6903651.8

YEAR: 1960

 = 500'





INQUIRY #: 6903651.8

YEAR: 1950

— = 500'



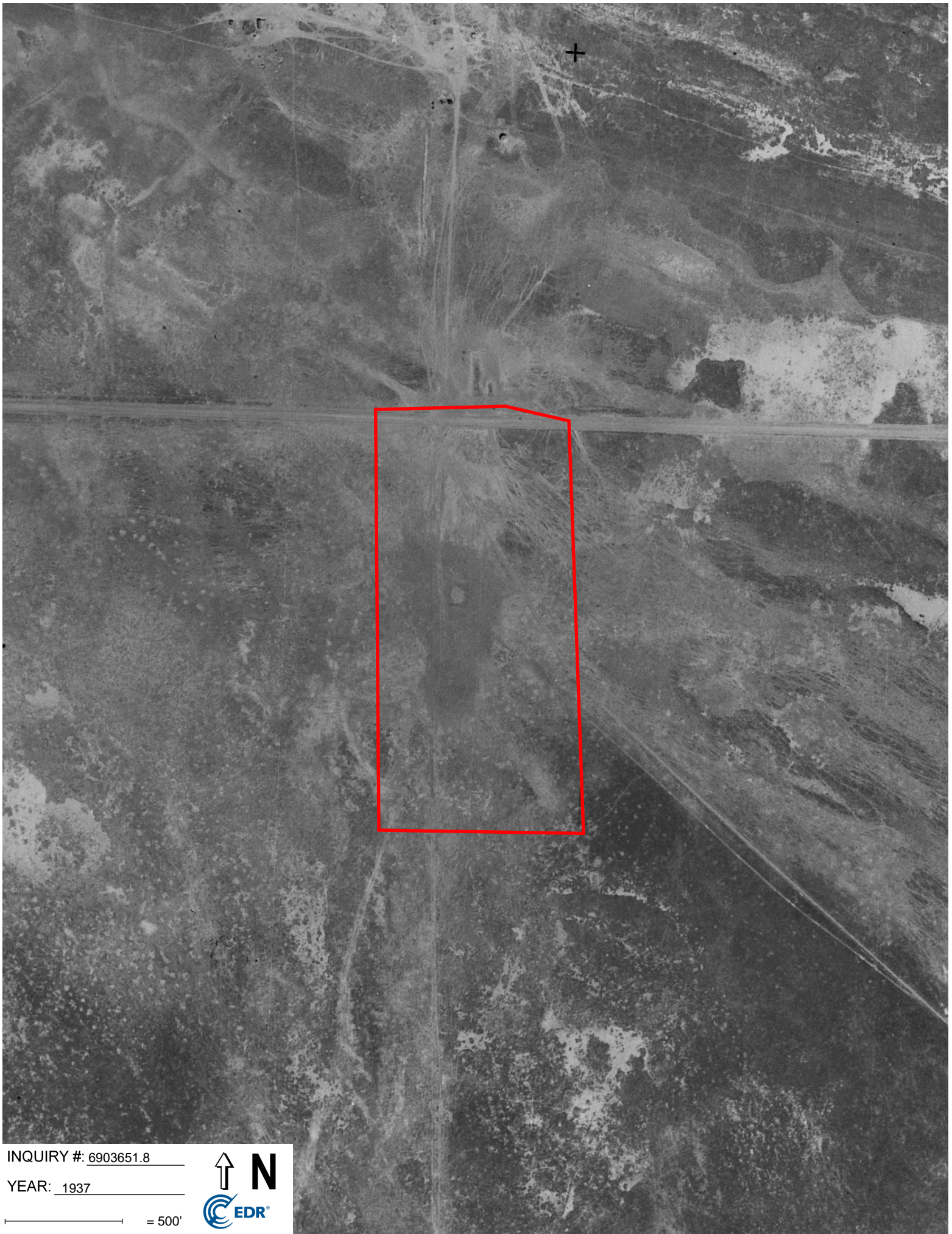


INQUIRY #: 6903651.8

YEAR: 1940

— = 500'





INQUIRY #: 6903651.8

YEAR: 1937

— = 500'



Utica Solar

Not Reported

Kettleman City, CA 93239

Inquiry Number: 6903651.5

March 22, 2022

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA[®]

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2017	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2004	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1999	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1994	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1990	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1985	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1980	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1975	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Not Reported
Kettleman City, CA 93239

No Addresses Found

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>UTICA AVE</u>			
2017	-	EDR Digital Archive	Target and Adjoining not listed in Source
2014	pg. A1	EDR Digital Archive	
2010	pg. A2	EDR Digital Archive	
2004	-	Haines Criss-Cross Directory	Street not listed in Source
1999	-	Haines Criss-Cross Directory	Street not listed in Source
1994	-	Haines Criss-Cross Directory	Street not listed in Source
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

UTICA AVE

2014

25684 FLORES, JOSE

UTICA AVE 2010

25684 FLORES, JOSE

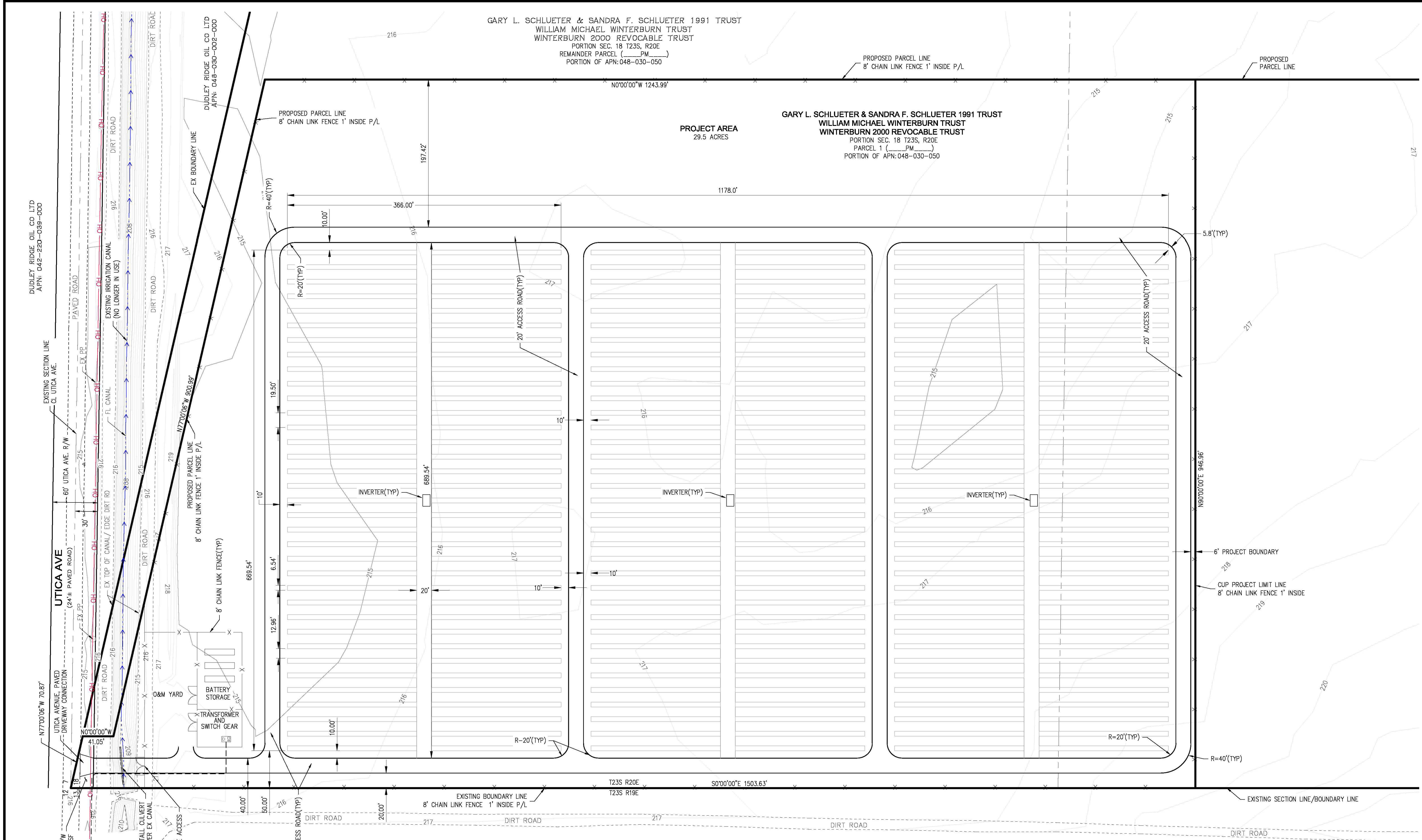
APPENDIX E

DOCUMENTS PROVIDED BY CLIENT

GARY L. SCHLUETER & SANDRA F. SCHLUETER 1991 TRUST
 WILLIAM MICHAEL WINTERBURN TRUST
 WINTERBURN 2000 REVOCABLE TRUST
 PORTION SEC. 18 T23S, R20E
 REMAINDER PARCEL (_____) PM (_____)
 PORTION OF APN: 048-030-050

GARY L. SCHLUETER & SANDRA F. SCHLUETER 1991 TRUST
 WILLIAM MICHAEL WINTERBURN TRUST
 WINTERBURN 2000 REVOCABLE TRUST
 PORTION SEC. 18 T23S, R20E
 PARCEL 1 (_____) PM (_____)
 PORTION OF APN: 048-030-050

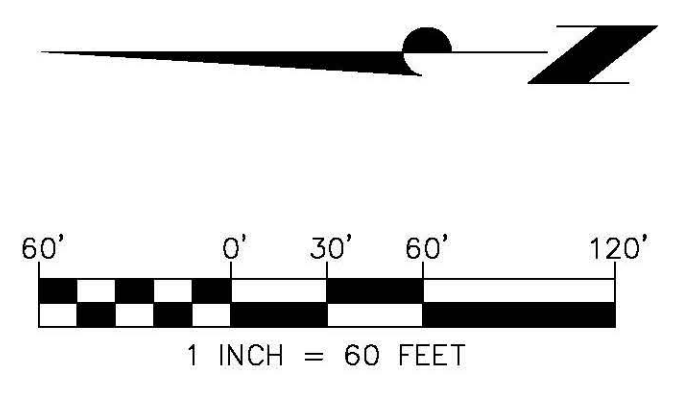
PROJECT AREA
 29.5 ACRES



UTICA AVENUE SOLAR FACILITY

SYSTEM DESCRIPTION

MODULE TYPE	Q.PEAK L-G4.2 365
MODULE QUANTITY	10,686
TOTAL AC SYSTEM SIZE	3000 KW
TOTAL DC SYSTEM SIZE	3900 KW
MOUNTING	SINGLE AXIS TRACKER
INVERTER	POWERGATE PV1000-CE2
MODULES PER STRING	13
STRINGS	822
TRANSFORMER	ABB 600 DELTA 1247 3000 KVA
MODULE AREA	21,308 SQ. METERS
CIRCUIT	TULARE LAKE 2108



LEGEND

- UTICA SOLAR BOUNDARY LINE
- BOUNDARY LINE
- UTICA AVE ROW LINE
- SECTION LINE
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- EX EDGE OF PAVED ROAD
- EX EDGE OF DIRT ROAD
- EX EDGE OF CANAL
- EX IRRIGATION CANAL FLOW LINE
- EX OVERHEAD ELECTRIC LINE, POWER POLE

NOTE:

THE CONFIGURATION OF SOLAR ARRAYS SHOWN IN THIS SITE PLAN CONSISTS OF SINGLE-AXIS TRACKERS WHICH WOULD ROTATE ON A HORIZONTAL AXIS FROM EAST TO WEST AS THEY FOLLOW THE SUN ACROSS THE SKY. THEREFORE, THE ROWS OF SOLAR MODULES ARE ORIENTED NORTH-SOUTH. ALTERNATIVELY, THE APPLICANT MAY SELECT FIXED-TILT SOLAR ARRAYS FOR THIS PROJECT INSTEAD OF SINGLE-AXIS TRACKERS. UNDER THIS ALTERNATIVE, THE ROWS OF FIXED-TILT SOLAR MODULES WOULD FACE SOUTH WITH A FIXED ANGLE OF TILT UPWARD TOWARD THE SUN. THEREFORE, UNDER THE FIXED-TILT ALTERNATIVE, THE ROWS OF SOLAR MODULES WOULD BE ORIENTED EAST-WEST INSTEAD OF NORTH-SOUTH AS SHOWN IN THIS SITE PLAN. IF THE FIXED-TILT ALTERNATIVE IS SELECTED BY THE APPLICANT FOR CONSTRUCTION, THE AREA OCCUPIED BY THE SOLAR ARRAYS WOULD BE SIMILAR TO THE AREA INDICATED IN THE SITE PLAN AND WOULD NOT NECESSITATE EXPANSION OF THE SOLAR FIELD BEYOND THE PROJECT BOUNDARY SHOWN IN THIS SITE PLAN.

CALL BEFORE YOU DIG

TWO DAYS BEFORE YOU DIG CALL USA TOLL FREE AT **811**

PRELIMINARY NOT FOR CONSTRUCTION

	NO. DATE DESCRIPTION
	dk

CALIFORNIA

KUUBIX GLOBAL, LLC
UTICA AVENUE SOLAR FACILITY
SITE PLAN
 CONDITIONAL USE PERMIT

KINGS COUNTY

PHONE: 949.838.8888
 WWW.KUUBIX.COM

ENGINEERING
 SURVEYING • PLANNING

480 SAN NICOLAS DR., SUITE 100
 WALNUT CREEK, CA 94598

DATE: 2-16-22

SCALE: HORIZ. 1"=60'
 VERT. N/A

DESIGNED BY: DBR
 REVIEWED BY: SDG

C3.0
 PAGE 4 OF 8

F:\Projects\2022\22-1002 Utica Solar - Kings County\DWG\CUP\UTICA SITE PLAN-2202.dwg 2/16/2022

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT

GENERAL INSTRUCTIONS: Please fill-in the blanks to the best of your ability. If you do not know the answer, please check the "DON'T KNOW" box. If you answer "YES" or the answer requires explanation please use additional pages and reference the table. Thank you, for your time and cooperation.

SITE INFORMATION	
Current Site Address	Unassigned
Current Site Use	Fallow - pasture
Current Site Zoning	AG - 40
Current Assessor's Parcel Number	048-030-050 (partial)
Addresses Formerly Assigned to Site (if any)	None

SITE OWNERSHIP AND PAST USE		
OWNER NAME, ADDRESS & PHONE #	PERIOD OF OWNERSHIP/USE	TYPE OF USE
Schlueter Trust	Unknown	Pasture
P.O. Box 2934		
Breckenridge, CO 80424		

ADJACENT PROPERTY USE		
DIRECTION	TYPE OF USE	LENGTH OF USE
North	Agriculture - pasture	~ 50 yrs
East	Agriculture - pasture	~ 50 yrs
South	Agriculture - pasture + tree crops	~ 50 yrs
West	Agriculture - pasture	~ 50 yrs

PRIOR FACILITY MANAGER'S NAME	
Contact Person	Logan Taylor, Kumbix Global, LLC.
Address	7401 W. Sunnyvale Ave., Visalia CA 93291
Telephone	614-356-0567

EXISTING SITE STRUCTURES			
STRUCTURE DESCRIPTION	LOCATION	USE	DATE OF CONSTRUCTION
None	—	—	—

FORMER SITE STRUCTURES			
STRUCTURE DESCRIPTION	FORMER LOCATION	USE	DATE OF DEMOLITION
None Known	—	—	—

SITE LESSEES		
NAME, ADDRESS & PHONE #	LENGTH/YEARS OF LEASE	TYPE OF USE
PRESENT: Unknown	—	—
FORMER:		
FORMER:		

SITE UTILITIES	
UTILITY	PROVIDER
Electricity	PG&E
Natural Gas	None
Drinking Water	None
Storm water Drainage	None
Solid Waste Disposal	None
Sanitary Sewer	None
Emergency Power Source	PG&E

***** PLEASE PROVIDE DETAILS FOR ALL YES ANSWERS *****
 Additional space is provided on page 9

#	SPECIFIC USES OF SITE AND ADJACENT PROPERTY*	SITE			ADJACENT		
		YES	NO	DON'T KNOW	YES	NO	DON'T KNOW
1A	Agricultural chemical formulation, distribution, or application			✓			✓
2A	Airport and/or airplane maintenance		✓			✓	
3A	Automotive wrecking yard		✓			✓	
4A	Bulk chemical or fuel storage		✓			✓	
5A	Commercial printing		✓			✓	
6A	Dry cleaning		✓			✓	
7A	Landfill		✓			✓	
8A	Metal plating or finishing		✓			✓	
9A	Mining or minerals processing		✓			✓	
10A	Motor vehicle or equipment repair and/or maintenance		✓			✓	
11A	Photographic laboratory		✓			✓	
12A	Service station		✓			✓	
13A	Skeet shooting or gun club		✓			✓	
14A	Releases, or spills of hazardous materials as a result of illegal dumping, or traffic accidents along the adjoining roadways.			✓			✓
15A	Waste treatment, storage, disposal, processing or recycling, other than a landfill		✓			✓	

* "Adjacent Property" includes those properties that border the immediate site and properties located across the street from the site.

***** PLEASE PROVIDE DETAILS FOR ALL YES ANSWERS *****
 Additional space is provided on page 9

#	ON-SITE HAZARDOUS MATERIALS USE, STORAGE AND DISPOSAL	YES	NO	DON'T KNOW
1B	Are asbestos-containing materials present in on-site structures?		✓	
2B	Has an asbestos survey been conducted for on-site structures?		✓	
3B	Are any electrical transformers or capacitors on-site?		✓	
4B	Are any electrical transformers or capacitors on-site not owned by an electrical utility?		✓	
5B	Does the Site have any elevators on-Site?		✓	
6B	Has an Environmental Audit or Assessment been conducted for the site?		✓	
7B	Do you know of any current or former <u>aboveground</u> storage tanks?		✓	
8B	Do you know of any current or former <u>underground</u> storage tanks (not septic)?		✓	
9B	Do you know of any fill dirt having been imported to the site?		✓	
10B	Do you know of any current or former wells on site, including, domestic drinking water, irrigation water, disposal, oil and/or abandoned wells?		✓	
11B	Do you know of any pesticides/herbicides permits for the site?		✓	
12B	Do you know of any pesticides/herbicides stored or used on-site?		✓	
13B	Are solvents, petroleum products, or paint products stored on-site?		✓	
14B	Are you aware of any permits having been issued for the site by the local fire, environmental health, or air pollution control agencies?		✓	

***** PLEASE PROVIDE DETAILS FOR ALL YES ANSWERS *****
 Additional space is provided on page 9

#	SITE WASTE GENERATION, STORAGE AND DISPOSAL	YES	NO	DON'T KNOW
1C	Is liquid waste disposed of to a septic tank on-site?		✓	
2C	Is liquid waste disposed of elsewhere on-site?		✓	
3C	Are any ponds, sumps, basins, lagoons, or clarifiers used on-site to collect, treat, or dispose of liquid?		✓	
4C	If liquid waste is disposed of on-site, is a waste discharge permit required?		✓	
5C	Is liquid waste disposed of to an off-site treatment works?		✓	
6C	Is solid waste disposed of on-site (burned or buried)?		✓	
7C	Does any solid or liquid off-site waste disposal require a waste manifest or disposal permit?		✓	
8C	Is any hazardous waste generated, stored, or treated on-site?		✓	
9C	Are any spills or releases of hazardous materials known or suspected to have occurred at the site?		✓	
10C	Is there another individual who may have additional or more complete information regarding the former use and activities at the site?		✓	

Please provide details of any investigations of an environmental or geotechnical nature that have been performed by you or by others related to the subject property. If you are not aware of any investigation(s) that have been performed in the past regarding the subject property, whether or not a report was ever prepared and/or issued to you, please so state in the space below.

N/A

Please provide details of any conditions known to you that could represent an environmental impairment to the subject property other than those items previously noted in this questionnaire. If you are not aware of any conditions, please so state in the space below.

N/A

To your knowledge, has the property been subject to any regulatory action related to environmental conditions, whether or not a report was issued to you or filed with a regulatory agency. If you are not aware of any actions, please so state in the space below.

No

**PLEASE INDICATE IN THE BOXES BELOW IF THE FOLLOWING ITEMS EXIST
AND IF YOU ARE ABLE TO PROVIDE THEM
Additional space is provided on page 9**

	DOCUMENTS, REPORTS, LISTS, PLANS AND MAPS	Exists/Will Provide Copy	Exists/Will Not Provide Copy	Does Not Exist	Don't Know
1D	Site plans and/or maps that include legal property boundaries	✓			
2D	Building plans (architectural, utilities and structural)			✓	
3D	Hazardous materials inventory			✓	
4D	Hazardous waste inventory			✓	
5D	Previously conducted Environmental Site Assessments			✓	
6D	Reports of subsurface investigations performed on the site including analytical data			✓	
7D	Reports of subsurface investigations performed on adjacent properties including analytical data				✓
8D	Previously conducted geotechnical/ soil investigations at the Site			✓	
9D	Permits and location of USTs, sumps, pits, and drainage systems			✓	
10D	Permits and inspection reports for elevators			✓	
11D	Environmental permits and plans, including hazardous materials management plans, UST closure, etc.			✓	
12D	Agricultural Chemical Permits				✓
13D	Literature or other sources of information regarding operations at the site				✓
14D	Individual who may have additional or more complete information regarding uses and activities at the site				✓

Additional Questions per ASTM E 1527-13:

1) Have any environmental cleanup liens been filed or recorded against the Site?

No.

2) Do you have knowledge of any activity and/or land use limitations that are in place on the Site or that have been filed or recorded in a registry?

No.

3) As the user of this Environmental Site Assessment (ESA) do you have any specialized knowledge related to the Site or activities at adjacent properties?

No.

4) Does the purchase price being paid for the Site reasonably reflect the fair market value? If you conclude that there is a difference, have you considered whether the lower price is because contamination is known or believed to be present at the Site?

yes.

5) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?

No.

6) As the user of this ESA, based on your knowledge and experience related to the Site, are there any obvious indicators that point to the presence of on Site contamination?

No.

APPENDIX D

Letter from Dudley Ridge Water District

June 2020

DUDLEY RIDGE WATER DISTRICT

286 W. CROMWELL AVENUE
FRESNO, CALIFORNIA 93711-6162

PHONE (559) 449-2700
FAX (559) 449-2715

DIRECTORS

KIMBERLY M. BROWN, PRESIDENT
LARRY RITCHIE, VICE PRESIDENT
STEVEN D. JACKSON, SECRETARY
JOHN VIDOVICH
BERNARD PUGET

MANAGER-ENGINEER

DALE K. MELVILLE
ASSESSOR-COLLECTOR-TREASURER
RICK BESECKER
LEGAL COUNSEL
JOSEPH D. HUGHES

June 16, 2020

Tony Perez at Jaton LLC
c/o Bert Virrips via email to bverrips@aol.com

RE: APN 48-030-050

Mr. Perez,

At the request to Bert Virrips, I am responding as to the ability of the subject APN to receive a water allocation from the District. Mr. Virrips asked the District to provide you information on the following:

1. Substantiation of your understanding that the property has no rights to surface water from the District, both currently and historically, and an explanation of why that is the case.
2. Why the property was annexed into the District.
3. The distance to the nearest District conveyance facility.
4. The viability of groundwater as a water source for the property.

Using the same numbering as above, my responses are as follows:

1. The subject property was subordinately annexed into the District in 1998. Refer to Condition B of the District's current annexation policy for an explanation of water allocations to such lands. The District records do not show that the landowner has provided a water supply via either Conditions B(1) or B(3). Since the 1980s, the District has not received a water supply sufficient to make excess water available under Condition B(2).
2. The land was subordinately annexed in 1998 as part of a 3,941.66 acre annexation of lands, owned primarily by Sandridge Partners, so that these lands could be irrigated with water allocated to Sandridge in other portions of the District and other water that they were bringing into the District.
3. The nearest District water conveyance facility is located about 2 miles from the subject property.
4. The District does not overly usable groundwater. The California Department of Water Resources classified the District's groundwater situation in Bulletin 118-98 as "groundwater unavailable and/or unusable". There is no history of use of groundwater underlying the District for irrigation.

Respectfully,



Dale K. Melville, PE
Manager-Engineer

Encl: 1996 Annexation Policy

APPENDIX E

Mitigation Monitoring and Reporting Program (MMRP)

May 2022

MITIGATION MONITORING AND REPORTING PROGRAM

UTICA AVENUE SOLAR PROJECT CUP 22-01

COUNTY OF KINGS, CALIFORNIA

MAY 2022

MITIGATION MONITORING AND REPORTING PROGRAM

Utica Avenue Solar Project CUP 22-01

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES			
<p>Mitigation Measure BIO-1: San Joaquin Kit Fox Protection. In order to minimize the potential for impacts to San Joaquin kit fox, the following measures shall be implemented in conjunction with the construction of the Utica Avenue Solar Project:</p> <p>a. <u>Pre-construction Surveys.</u> 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 shall be conducted in accordance with the “U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior To or During Ground Disturbance” (USFWS 2011). 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 San Joaquin kit fox. If an active San Joaquin 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.</p> <p>b. <u>Kit Fox Avoidance Measures.</u> Should San Joaquin kit fox be found using the Utica Avenue Solar Project site during preconstruction surveys, the construction activity shall avoid the habitat occupied by kit fox and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be notified.</p> <p>c. <u>Employee Education Program.</u> Prior to the start of construction, the applicant shall retain a qualified biologist to conduct an on-site training session to educate all construction staff on the San Joaquin kit fox. This training shall include a description of the San Joaquin kit fox, a brief summary of their biology; and a list of minimization measures and instructions on what to do if a San Joaquin kit fox is observed within the Utica Avenue Solar Project site.</p> <p>d. <u>Minimization of Potential Disturbance to Kit Fox.</u> Whether or not kit foxes are found to be present, all permanent and temporary construction activities and other types of project-related activities shall be carried out in a manner that minimizes disturbance to San Joaquin kit fox. 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 San Joaquin kit fox; restriction of rodenticide and herbicide use; and proper disposal of food items and trash. <i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor/ Operator</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Authorize qualified biologist to conduct preconstruction surveys; 2) If kit fox found on or near site, undertake avoidance measures and notify USFWS and CDFW; 3) Direct qualified biologist to conduct employee education program;</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Verify completion of pre-construction surveys; 2) Verify that avoidance measures have been implemented if kit fox found on site; 3) Verify completion of employee education prior to ground disturbing activities.</p> <p><i>(Continued)</i></p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>The full list of protection measures required by the USFWS during construction and operation contained in USFWS Standardized Recommendations (USFWS 2011), and is presented in Table BIO-1. The protection measures set forth in Table BIO-1 are fully incorporated into this mitigation measure by reference.</p> <p>e. <u>Mortality Reporting</u>. 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 of 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.</p> <p>f. <u>Wildlife-friendly Fencing</u>. The perimeter fencing surrounding each phase of the Utica Avenue Solar Project shall consist of wildlife-friendly or permeable fencing that allows San Joaquin kit fox and other wildlife to move through the site unimpeded. The bottom of the perimeter fencing shall be 5 to 7 inches above the ground, as measured from the top of the ground to the lowest point of the fence. The bottom of the fence edges shall be knuckled (wrapped back to form a smooth edge) to allow wildlife to pass through safely. The fencing shall not be electrified.</p>	<p><u>During Construction:</u></p> <ol style="list-style-type: none"> 1) Install wildlife-friendly fencing; 2) Implement disturbance minimization measures, as specified; 3) Report any kit fox mortalities as specified. <p><u>During Project Operation:</u></p> <ol style="list-style-type: none"> 1) Report any kit fox mortalities as specified. 	<p><u>During Construction:</u></p> <ol style="list-style-type: none"> 1) Conduct field inspections to verify installation of wildlife friendly fencing; 2) Conduct field inspections to confirm disturbance minimization measures have been implemented; 3) Verify that any kit fox mortalities have been reported as required. <p><u>During Project Operation:</u></p> <ol style="list-style-type: none"> 1) Verify that any kit fox mortalities have been reported as required. 	

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Table BIO-1

U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted under measure 13 referenced below.
3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should 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 should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
5. No firearms shall be allowed on the project site.
6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the USFWS. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS

(Continued on next page.)

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Table BIO-1 (Cont'd)

**U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS
FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE
CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS**

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin 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 measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc., should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to “temporary” disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the USFWS, California Department of Fish and Wildlife (CDFW), and revegetation experts.
11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for guidance.
12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530) 934-9309. The USFWS should be contacted at the numbers below.
13. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.
14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

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Utica Avenue Solar Project CUP 22-01

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<p><u>Mitigation Measure BIO-2: Protection for Nesting Raptors and Migratory Birds.</u> In order to minimize the construction disturbance to active raptor and other migratory bird nests, the following measures shall be implemented in conjunction with the construction of the Utica Avenue Solar Project:</p> <p>a. <u>Pre-construction Surveys.</u> If tree removal, site preparation, grading, or construction is planned to occur within the breeding season (February 1 - August 31), a qualified biologist shall conduct pre-construction surveys for active migratory bird nests within 10 days of the onset of these activities. If construction activity is planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.</p> <p>b. <u>Monitoring Active Nests.</u> Should any active nests be discovered in or near planned construction zones, a qualified biologist shall continuously monitor identified nests for the first 24 hours prior to any construction related activities to establish a behavioral baseline. Once work commences, continuously monitor all nests to detect any behavioral changes as a result of the project. If behavioral changes are observed, stop the work causing that change and consult with the California Department of Fish and Wildlife for additional avoidance and minimization measures.</p> <p>c. <u>Exclusion Zones for Active Nests.</u> Alternatively, should any active nests be discovered in or near the planned construction zones, the biologist shall establish a 250-foot construction-free buffer around the nest for non-listed birds, 500-foot buffer for unlisted raptors, and a half-mile for listed bird species. This buffer shall be identified on the ground with flagging or fencing, and shall be maintained until the biologist has determined that the young have fledged. Variance from these setback distances may be allowed if a qualified biologist provides compelling biological or ecological reason to do so and if CDFW is notified in advance of implementation of a no disturbance buffer variance.</p> <p>d. <u>Tailgate Training for Workers.</u> All construction and operations workers on the Utica Avenue Solar Project shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright in order to avoid birds falling into the pipes and getting stuck.</p> <p><i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Authorize qualified biologist to conduct preconstruction surveys; 2) If active nest(s) found on or near site, authorize biologist to monitor nest(s) and notify CDFW, as needed; <u>OR</u> 3) Authorize biologist to establish exclusion zone around nest(s), as needed; 4) Direct qualified biologist to conduct employee education program;</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Verify completion of pre-construction surveys; 2) Verify that nest protection measures have been implemented if nest(s) found on site; 3) Verify completion of employee education prior to ground disturbing activities.</p> <p><i>(Continued)</i></p>	

MITIGATION MONITORING AND REPORTING PROGRAM

Utica Avenue Solar Project CUP 22-01

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>e. <u>Capping of Hollow Poles and Posts.</u> Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow tubes or poles be utilized on the Utica Avenue Solar Project site, the poles shall be capped immediately after installation to prevent entrapment of birds.</p>	<p><u>During Construction:</u> 1) Ensure that all hollow poles and posts are capped.</p>	<p><u>During Construction:</u> 1) Conduct field inspection to confirm capping of poles and posts.</p>	
<p><u>Mitigation Measure BIO-3: Burrowing Owl Protection.</u> In order to minimize the potential for impacts to burrowing owls, the following measures shall be implemented, as necessary, in conjunction with the construction of each phase of the Utica Avenue Solar Project:</p> <p>a. <u>Pre-Construction Surveys.</u> Pre-construction surveys shall be conducted for burrowing owls by a qualified biologist no more than 14 days prior to the onset of ground-disturbing activity. Pre-construction surveys shall be repeated if construction halts for more than 14 days. These surveys shall be conducted in accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG 2012) or the most recent CDFW guidelines. The surveys shall cover all areas of suitable habitat within the planned construction zones.</p> <p>b. <u>Avoidance of Active Nests during Breeding Season.</u> If pre-construction 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 shall be established around all active owl nests. The buffer zones shall be enclosed with temporary fencing, and construction equipment and workers shall not be allowed to enter the enclosed setback areas. These buffer zones shall 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, but only under the conditions described below.</p> <p><i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) Authorize qualified biologist to conduct preconstruction surveys; 2) If active nest(s) found on or near site, authorize biologist to establish exclusion zone(s) around nest(s);</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) Verify completion of pre-construction surveys; 2) Conduct field inspection to verify establishment of any exclusion zone(s);</p> <p><i>(Continued)</i></p>	

MITIGATION MONITORING AND REPORTING PROGRAM

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>c. <u>Avoidance of Occupied Burrows during Non-Breeding Season, and Passive Relocation of Resident Owls.</u> During the non-breeding season (September through January), any burrows occupied by resident owls in areas planned for construction shall be protected by a construction-free buffer with a radius of 150 to 250 feet around each active burrow, with the required buffer distance in each case to be determined by a qualified biologist. Passive relocation of resident owls is not recommended by CDFW where it can be avoided. If passive relocation is not avoidable, resident owls may be passively relocated according to a relocation plan prepared by a qualified biologist.</p> <p>d. <u>Tailgate Training for Workers.</u> All construction workers shall attend a tailgate training session conducted by a qualified biologist. The training is to include a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if a burrowing owl is observed within or near a construction zone.</p>	<p>3) Direct qualified biologist to conduct employee education program; 4) Implement mitigation, as needed, per recommendation of qualified biologist.</p>	<p>3) Verify completion of employee education prior to ground disturbing activities; 4) Verify implementation of any required mitigation.</p>	
<p>Mitigation Measure BIO-4: Swainson's Hawk Protection. In order to minimize the potential for impacts to Swainson's hawks, the following measures shall be implemented, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:</p> <p>a. <u>Pre-Construction Surveys.</u> During the nesting season prior to the construction of the Utica Avenue Solar Project within a half-mile of a potential nest tree, preconstruction surveys shall be conducted within the construction zones and adjacent lands to identify any nesting pairs of Swainson's hawks. These surveys will conform to the guidelines 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. No preconstruction surveys are required for construction activity located farther than a half-mile from a potential nest tree. (Continued on next page.)</p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Authorize qualified biologist to conduct preconstruction surveys;</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> 1) Verify completion of pre-construction surveys;</p> <p><i>(Continued)</i></p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>b. <u>Establish Buffers</u>. Should any active nests be discovered in or near proposed construction zones, the qualified biologist shall establish a suitable construction-free buffer around the nest. This buffer shall be identified on the ground with flagging or fencing, and shall be maintained until the biologist has determined that the young have fledged.</p> <p>c. <u>Tailgate Training</u>. All workers on the construction of the project shall attend tailgate training that includes a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if a Swainson's hawk is observed on or near the construction zone.</p>	<p>2) If active nest(s) found on or near site, authorize biologist to establish exclusion zone(s) around nest(s);</p> <p>3) Direct qualified biologist to conduct employee education program.</p>	<p>2) Conduct field inspection to verify establishment of any exclusion zone(s);</p> <p>3) Verify completion of employee education prior to ground disturbing activities.</p>	
<p><u>Mitigation Measure BIO-5: American Badger Mitigation.</u> The following measures shall be implemented to minimize impacts to the American badger, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:</p> <p>a. <u>Preconstruction Surveys for American Badger</u>. During the course of pre-construction surveys prescribed for other species, a qualified biologist shall also determine the presence or absence of badgers prior to the start of construction. If badgers are found to be absent, a report shall be written to the applicant so stating and no other mitigations for the protection of badgers would be warranted.</p> <p>b. <u>Avoidance of Active Badger Dens and Monitoring</u>. If an active badger den is identified during pre-construction surveys within or immediately adjacent to an area subject to construction, a construction-free buffer of up to 300 feet shall be established around the den. Once the biologist has determined that the badger(s) have vacated the burrow, the burrow can be collapsed or excavated, and ground disturbance can proceed. Should the burrow be determined to be a natal or reproductive den, and because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor shall be present on-site during construction activities in the vicinity of the burrows to ensure the buffer is adequate to avoid direct impact to individuals or natal/reproductive den abandonment. The monitor shall be required on-site until it is determined that young are of an independent age and construction activities would not harm individual badgers.</p> <p><i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u></p> <p>1) Authorize qualified biologist to conduct preconstruction surveys;</p> <p>2) If active den(s) found on or near site, authorize biologist to establish exclusion zone(s) around den(s), and to monitor den(s) until end of breeding period.</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u></p> <p>1) Verify completion of pre-construction surveys;</p> <p>2) Conduct field inspection to verify establishment of any exclusion zone(s);</p> <p><i>(Continued)</i></p>	

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Utica Avenue Solar Project CUP 22-01

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>c. <u>Tailgate Training for Workers.</u> All construction workers shall attend a tailgate training session conducted by a qualified biologist. The training is to include a description of the species, a brief summary of its biology, and minimization measures and instructions on what to do if an American Badger is observed.</p>	<p>3) Direct qualified biologist to conduct employee education program</p>	<p>3) Verify completion of employee education prior to ground disturbing activities.</p>	
4.5 CULTURAL RESOURCES			
<p><u>Mitigation Measure CR-1: Protection of Cultural Resources.</u> In order to avoid the potential for impacts to historic and prehistoric archaeological resources, the following measures shall be implemented, as necessary, in conjunction with the construction and decommissioning of the Utica Avenue Solar Project:</p> <p>a. <u>Cultural Resources Alert on Project Plans:</u> The project proponent shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources.</p> <p>b. <u>Pre-Construction Briefing:</u> The project proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction Cultural Sensitivity Training to construction staff (and also staff at the time of decommissioning) regarding the discovery of cultural resources and the potential for discovery during ground disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found.</p> <p>c. <u>Stop Work Near any Discovered Cultural Resources:</u> The project proponent shall retain a professional archaeologist on an “on-call” basis during ground disturbing activity for construction and decommissioning of the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction or decommissioning. Should previously unidentified cultural resources be discovered during construction of the project, the project proponent shall cease work within 100 feet of the resources, and Kings County Community Development Agency (CDA) shall be notified immediately. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under CEQA.</p> <p><i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Building Permit:</u> 1) Place Cultural Resources Alert on project plans.</p> <p><u>Prior to Construction:</u> 1) Arrange for Tribe to conduct pre-construction briefing.</p> <p><u>During Construction:</u> 1) If cultural resources discovered, establish 100-foot setback zone and contact archaeologist and Kings County CDA.</p> <p><i>(Continued)</i></p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Building Permit:</u> 1) Confirm Cultural Resources Alert has been placed on project plans.</p> <p><u>Prior to Construction:</u> 1) Verify Tribe has completed briefing prior to construction.</p> <p><u>During Construction:</u> 1) Coordinate with applicant/contractor and archaeologist to ensure protection of cultural resources.</p> <p><i>(Continued)</i></p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.5 CULTURAL RESOURCES (CONT'D)			
<i>(Continued from preceding page.)</i>			
<p>d. <u>Mitigation for Discovered Cultural Resources:</u> If cultural resources are identified, the archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System, Southern San Joaquin Valley Information Center. Limited archaeological testing of cultural deposits may be appropriate to determine the horizontal and vertical extend of the resource.</p> <p>Project redesign may be recommended to avoid the resources and minimize adverse by project activities. If impacts to cultural resources cannot be avoided, they shall be evaluated for their eligibility for listing in the California Register of Historical Resources (i.e., to determine if they qualify as historical or unique archaeological resources under CEQA). If the resource(s) is not eligible, avoidance is not necessary. If the resource(s) is eligible, adverse effects shall be avoided (i.e., preservation in place), or, if avoidance is not feasible, the adverse effects shall be mitigated.</p> <p>If avoidance is not feasible and the resource will be impacted by the project, the mitigation treatment for archaeological resources eligible for the California Register of Historic Resources is data recovery, recordation and curation. If data recovery excavation is appropriate, the excavation shall be guided by a treatment plan prepared by a professional archaeologist and approved by Kings County CDA prior to data recovery. 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 results and findings of the cultural resources investigation and method of curation or protection of the resources shall be documented in a professional report and submitted to the project applicant, the County of Kings and the Southern San Joaquin Valley Information Center (SSJVI). Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.</p> <p>e. <u>Native American Monitoring:</u> Prior to any ground disturbance, the project proponent shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during both construction and decommissioning. Tribal participation would be dependent upon the availability and interest of the Tribe.</p>	<p>2) Coordinate with Kings County CDA, archaeologist, and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate mitigation;</p> <p>3) Coordinate with Santa Rosa Rancheria Tachi Yokut Tribe regarding monitoring during construction;</p> <p>4) Coordinate with Kings County CDA and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate disposition of any cultural resources recovered from the site.</p>	<p>2) Coordinate with applicant, archaeologist, and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate mitigation;</p> <p>3) Verify applicant has coordinated with Santa Rosa Rancheria Tachi Yokut Tribe regarding monitoring during construction;</p> <p>4) Coordinate with applicant and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate disposition of any cultural resources recovered from the site.</p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.5 CULTURAL RESOURCES (CONT'D)			
<p>a. <u>Disposition of Cultural Resources:</u> Upon coordination with the Kings County Community Development Agency, any pre-historic archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.</p>			
<p>Mitigation Measure CR-2: Protection of Buried Human Remains. In order to avoid the potential for impacts to buried human remains, the following measures shall be implemented, as necessary, in conjunction with the construction of each phase of the Utica Avenue Solar Project:</p> <p>a. Pursuant to State Health and Safety Code Section 7050.5(e) and Public Resources Code Section 5097.98, if human bone or bone of unknown origin is found at any time during on- or off-site construction, all work shall stop in the vicinity of the find and the Kings County Coroner shall be notified immediately. If the remains are determined to be Native American, the Coroner shall notify the California State Native American Heritage Commission (NAHC), who shall identify the person believed to be the Most Likely Descendant (MLD). The project proponent and MLD, with the assistance of the archaeologist, shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Sec. 15064.5(d)). The agreed upon treatment shall address the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours to for the MLD to make their wishes known to the landowner after being granted access to the site. If the MLD and the other parties do not agree on the reburial method, the project will follow Public Resources Code Section 5097.98(b) which states that ". . . the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."</p> <p>b. Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, the Kings County Community Development Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center</p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>During Construction:</u> 1) If human remains are discovered, engage project archaeologist and coordinate with Kings County CDA in implementing the legally required actions as specified in the mitigation measure.</p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>During Construction:</u> 1) If human remains are discovered, coordinate with applicant and archaeologist to ensure that all legally required actions are implemented.</p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.7 GEOLOGY AND SOILS			
<p><u>Mitigation Measure GEO-1: Protection of Paleontological Resources.</u> In order to avoid the potential for impacts to paleontological resources, the following measures shall be implemented, as necessary, in conjunction with the construction of the Utica Avenue Solar Project:</p> <p>a. <u>Preparation of PRMMP.</u> Prior to commencement of any grading on the site, a professional paleontologist shall be retained to prepare a Paleontological Resource Monitoring and Mitigation Plan (PRMMP). The PMMP shall include provisions for paleontological monitoring of earthwork and ground disturbing activities into undisturbed geologic units with high paleontological potential to be conducted by a paleontological monitor meeting industry standards. The PMMP should also include provisions for a Worker’s Environmental Awareness Program (WEAP) training that communicates requirements and procedures for the inadvertent discovery of paleontological resources during construction, to be delivered by the paleontological monitor to the construction crew prior to the onset of ground disturbance.</p> <p>b. <u>Monitoring for Fossils.</u> Since the project site includes two distinct geological surface deposits with different levels of sensitivity for paleontological resources, the monitoring program provides for different monitoring procedures for each, as follows:</p> <p><u>Northern Portion of Project Site.</u> The surface material in northern half of the project site is mapped as composed of dune sands (Qs) which have a low paleontological potential, but are underlain by older Pleistocene nonmarine sediments (Qc) with a high paleontological potential. Within this area, excavations less than 3 feet deep do not require monitoring; excavations between 3 and 5 feet deep shall be spot checked by a professional paleontologist; and excavations exceeding a depth of 5 feet shall be subject to full-time monitoring by a professional paleontologist. If the deposits mapped in this area are found by the paleontological monitor to be not conducive to fossil preservation, the monitoring program in this area should be reduced or suspended as recommended by the paleontologist in consultation with the Kings County Community Development Agency (CDA).</p> <p><i>(Continued on next page.)</i></p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> Authorize a qualified paleontologist to prepare a PRMMP, and submit to County CDA.</p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>Prior to Construction:</u> Verify receipt of completed PRMMP.</p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.7 GEOLOGY AND SOILS			
<i>(Continued from preceding page.)</i>			
<p><u>Southern Western Portion of the Site.</u> The surface material in the southern half of the project site area is mapped as composed of Pleistocene nonmarine sediments (Qc) which have a high paleontological potential. Within this area, all ground disturbance shall be subject to full-time monitoring by a professional paleontologist. If the deposits mapped in this area are found by the paleontological monitor to be not conducive to fossil preservation, the monitoring program in this area should be reduced or suspended as recommended by the paleontologist in consultation with the Kings County Community Development Agency (CDA). If it is determined that only sediments that are not conducive to fossil preservation are disturbed by excavation, the monitoring program should be reduced or suspended as recommended by the paleontologist and in consultation with the Kings County CDA.</p> <p>c. <u>Work Stoppage upon Discovery of Fossils.</u> If a potential paleontological resource is identified during grading, excavation, and construction activities at the project site, all work within 50 feet of the find shall cease, and work within this exclusion zone shall not recommence until the project paleontologist can assess the find and, if significant, salvage the fossil for laboratory preparation and curation at an accredited institution, such as the Natural History Museum of Los Angeles County. Treatment of any significant paleontological resources shall be undertaken in consultation with the Kings County CDA.</p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>During Construction:</u> 1) Northern portion of site: Authorize paleontologist to spot check excavations and authorize monitoring if required. 2) Southern portion of site: Authorize paleontologist to monitor excavations below depths of 50 feet, as determined to be required by the paleontologist. 3) If paleontological resources are discovered, establish 50-foot setback zone, implement applicable provisions of PRMMP, in coordination with Kings County CDA;</p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u></p> <p><u>During Construction:</u> 1) Verify spot checking is being conducted as specified, and monitoring is occurring if required. 2) Review any proposed changes to monitoring program as recommended by the paleontologist; approve changes as appropriate. 3) Coordinate with applicant and paleontologist regarding treatment recommendations; 4) Verify implementation of treatment measures.</p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.9 HAZARDS AND HAZARDOUS MATERIALS			
<p><u>Mitigation Measure HAZ-1: Protection from Hazardous Materials.</u> In order to protect the public from potential release of hazardous materials, the following measures shall be implemented during project construction, operation, and decommissioning:</p> <p>a. The project applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) in accordance with the requirements of, and to the satisfaction of, the Kings County Public Health Department Environmental Services Division;</p> <p>b. The project applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the State Water Resources Control Board, and to the satisfaction of the Central Valley Regional Water Quality Control Board.</p>	<p><u>Responsible Party:</u> Applicant/Contractor/Operator</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Building Permit:</u></p> <ol style="list-style-type: none"> 1) Authorize qualified engineer to prepare SWPPP; and submit to RWQCB and Kings County CDA. 2) File a Notice of Intent (NOI) to State Water Resources Control Board. 3) Prepare Construction HMBP (if required), and submit to Kings County Public Health Department. <p><u>During Construction:</u></p> <ol style="list-style-type: none"> 1) Implement SWPPP. 2) Implement Construction HMBP. <p><u>Prior to Project Operation:</u></p> <ol style="list-style-type: none"> 1) Prepare Operations HMBP and submit to Kings County Public Health Department. <p><u>During Project Operation:</u></p> <ol style="list-style-type: none"> 1) Implement HMBP. 	<p><u>Monitoring Agencies:</u> Kings County CDA and Kings County Public Health Department.</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Building Permit:</u></p> <ol style="list-style-type: none"> 1) Verify receipt of SWPPP (CDA). 2) Verify filing of NOI (CDA). 3) Verify receipt of Construction HMBP (Public Health) <p><u>During Construction:</u></p> <ol style="list-style-type: none"> 1) Verify implementation of SWPPP (CDA). 2) Verify implementation of Construction HMBP (Public Health). <p><u>Prior to Project Operation:</u></p> <ol style="list-style-type: none"> 1) Verify receipt of Operations HMBP (Public Health). <p><u>During Project Operation:</u></p> <ol style="list-style-type: none"> 1) Verify implementation of Operations HMBP (Public Health). 	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.10 HYDROLOGY AND WATER QUALITY			
<p><u>Mitigation Measure HAZ-2: Preventing Valley Fever Exposure.</u> In order to protect the public and workers from Valley Fever, the following measures shall be implemented during project construction and decommissioning:</p> <p>a. Implement the Dust Control Plan required to be approved for the project by the San Joaquin Valley Air Pollution District under District Rule 8021 prior to ground disturbing activity.</p> <p>b. Provide workers with NIOSH-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or HEPA, as recommended in the California Department of Public Health publication “Preventing Work-Related Coccidioidomycosis (Valley Fever),” available at http://www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf</p>	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) Prepare Dust Control Plan and submit to SJVAPCD and Kings County CDA for approval. <u>During Construction:</u> 1) Implement Dust Control Plan; 2) Provide workers with respirators as recommended.</p>	<p><u>Monitoring Agency:</u> Kings County CDA.</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) Review and approve Dust Control Plan. <u>During Construction:</u> 1) Verify implementation of Dust Control Plan and distribution of respirators.</p>	
<p><u>Mitigation Measure HYD-1: Stormwater Quality Protection.</u> Prior to construction grading and prior to the decommissioning, the applicant shall be required to file a “Notice of Intent” (NOI) with the SWRCB to comply with the General Construction Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP for each project phase shall be prepared by a licensed engineer and shall detail the treatment measures and best management practices (BMPs) to control pollutants that shall be implemented and complied with during the construction and post-construction phases of solar development. The SWPPP(s) required for decommissioning shall specify BMPs to be implemented during that final project phase. The construction contracts for each project phase, and for the decommissioning phase, shall include the requirement to implement the BMPs in accordance with the SWPPPs. The SWPPPs will specify such practices as: designation of restricted-entry zones, sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance), truck washdown areas, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, application of mulch for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area. The SWPPPs will also prescribe treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds. Upon completion of each solar phase, the finished grades beneath and around the finished rows of solar panels will be revegetated with a seed mix which has been approved by the Kings County Community Development Agency. The reestablished vegetated cover would stabilize the soils and minimize the potential for post-construction erosion. The construction contracts for each project phase, and for the decommissioning phase, will include the requirement to implement the BMPs in accordance with the SWPPPs, and proper implementation of the specified BMPs is subject to inspection by the Regional Board staff.</p>	<p><u>Responsible Party:</u> Applicant/Contractor/Operator</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) File NOI with SWRCB; 2) Authorize qualified engineer to prepare SWPPP. <u>During Construction:</u> 1) Implement SWPPP. <u>During Operation:</u> 1) Implement post-construction elements of SWPPP. <u>During Decommissioning:</u> 1) Implement SWPPP.</p>	<p><u>Monitoring Agencies:</u> Kings County CDA and Public Works Department.</p> <p><u>Actions:</u> <u>Prior to Construction:</u> 1) Verify filing of NOI. 2) Verify preparation of SWPPP. <u>During Construction:</u> 1) Verify implementation of SWPPP. <u>During Operation:</u> 1) Verify implementation of post-construction elements of SWPPP. <u>During Decommissioning:</u> 1) Verify implementation of decommissioning SWPPP.</p>	

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Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.17 TRANSPORTATION			
<p><u>Mitigation Measure TR-1: Traffic Safety Measures for Solar Project Construction.</u> As a condition of project approval, and prior to the issuance of encroachment permits, the applicant shall consult with the Kings County Public Works Department regarding construction activities that may affect area traffic (such as equipment and supply delivery necessitating lane closures, trenching, etc.). Additionally, the project plans will be reviewed by the appropriate County departments for conformance with all applicable fire safety code and ordinance requirements for emergency access. The contractor shall implement appropriate traffic controls in accordance with the California Vehicle Code and other state and local requirements to avoid or minimize impacts on traffic.</p> <p>Traffic measures that shall be implemented during construction and decommissioning activities include the following:</p> <ol style="list-style-type: none"> a. Construction traffic shall not block emergency equipment routes. b. Construction activities shall be designed to minimize work in public rights-of-way and use of local streets. As examples, this might include the following: <ol style="list-style-type: none"> i. Identify designated off-street parking areas for construction-related vehicles throughout the construction and decommissioning periods. ii. Identify approved truck routes for the transport of all construction- and decommissioning-related equipment and materials. iii. Limit the employee arrivals and departures, and the delivery of equipment and materials, to non-peak traffic periods (e.g., avoid unnecessary travel from 7 to 9 AM and 4 to 6 PM). iv. Provide for farm worker vehicle access and safe pedestrian and vehicle access. v. Provide advance warning and appropriate signage whenever road closures or detours are necessary. c. Construction shall comply with San Joaquin Valley Air Pollution Control District standards for unpaved roads, which include a requirement to keep vehicle speeds below 15 miles per hour. 	<p><u>Responsible Party:</u> Applicant/Contractor</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Encroachment Permits:</u> 1) Consult with Kings County Public Works Department regarding appropriate traffic safety measures.</p> <p><u>During Construction:</u> 1) Implement traffic safety measures as approved by Public Works Department.</p> <p><u>During Decommissioning:</u> 1) Implement traffic safety measures as approved by Public Works Department.</p>	<p><u>Monitoring Agencies:</u> Kings County CDA, Public Works Department, and Fire Department.</p> <p><u>Actions:</u></p> <p><u>Prior to Issuance of Encroachment Permits:</u> 1) Coordinate with Applicant/Civil/Contractor regarding appropriate traffic safety measures.</p> <p><u>During Construction:</u> 1) Verify implementation of traffic safety measures.</p> <p><u>During Decommissioning:</u> 1) Verify implementation of traffic safety measures.</p>	