INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

DAYLIGHT LEGACY SOLAR PROJECT
AND GEN-TIE LINE

CUP 23-03

Kings County Community Development Agency

February 2024

TABLE OF CONTENTS

1. INTRODUCTION 1

2. DESCRIPTION OF THE PROPOSED PROJECT 2

2.1 BACKGROUND INFORMATION 2
2.2 PROJECT DESCRIPTION 7
2.3 SURROUNDING LAND USES AND SETTING 37
2.4 RELATED PROJECTS 37
2.5 OTHER PERMITS AND APPROVALS THAT MAY BE REQUIRED 38

3. ENVIRONMENTAL DETERMINATION 40

4. EVALUATION OF ENVIRONMENTAL IMPACTS 41

4.1 AESTHETICS 41
4.2 AGRICULTURE AND FORESTRY RESOURCES 55
4.3 AIR QUALITY 78
4.4 BIOLOGICAL RESOURCES 94
4.5 CULTURAL RESOURCES 124
4.6 ENERGY 134
4.7 GEOLOGY AND SOILS 140
4.8 GREENHOUSE GAS EMISSIONS 154
4.9 HAZARDS AND HAZARDOUS MATERIALS 162
4.10 HYDROLOGY AND WATER QUALITY 184
4.11 LAND USE AND PLANNING 203
4.12 MINERAL RESOURCES 209
4.13 NOISE 212
4.14 POPULATION AND HOUSING 228
4.15 PUBLIC SERVICES 230
4.16 RECREATION 237
4.17 TRANSPORTATION 238
4.18 TRIBAL CULTURAL RESOURCES 252
4.19 UTILITIES AND SERVICE SYSTEMS 256
4.20 WILDFIRE 274
4.21 MANDATORY FINDINGS OF SIGNIFICANCE 279

APPENDICES

Appendix

A. AIR QUALITY ASSESSMENT

B. BIOLOGICAL ASSESSMENT

C. WATER SUPPLY ASSESSMENT

D-1. PHASE I ENVIRONMENTAL SITE ASSESSMENT

D-2. PHASE II ENVIRONMENTAL SITE ASSESSMENT

E. MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

LIST OF TABLES

Table		Page
PD-1.	COVERAGE BY IMPERVIOUS SURFACES AND GRAVEL DRIVEWAYS AND PERCENTAGE REMAINING IN VEGETATIVE COVER	23
PD-2.	GEN-TIE LINE – LAND DISTURBANCE ESTIMATES	35
AG-1.	AGRICULTURAL CAPABILITY OF SOILS ON THE DAYLIGHT LEGACY SOLAR PROJECT SITE	56
AQ-1.	UNCONTROLLED CONSTRUCTION EMISSIONS IN TONS PER YEAR	85
AQ-2.	CONTROLLED CONSTRUCTION EMISSIONS IN TONS PER YEAR	86
AQ-3.	ANNUAL PROJECT OPERATIONAL EMISSIONS IN TONS PER YEAR	87
BIO-1.	SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY	97
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	114
EN-1.	ESTIMATED PROJECT ENERGY CONSUMPTION AND PRODUCTION	136
GHG-1.	ESTIMATED PROJECT GREENHOUSE GAS EMISSIONS	157
NOI-1	TYPICAL NOISE LEVELS IN THE ENVIRONMENT	214
NOI-2	DEFINITIONS OF ACOUSTICAL TERMS	215
TR-1.	PROJECT CONSTRUCTION TRAFFIC	243
MFS-1.	PENDING, APPROVED, AND COMPLETED SOLAR PV PROJECTS	281

LIST OF FIGURES

Figure		Page
PD-1.	REGIONAL LOCATION	5
PD-2.	PROJECT VICINITY	6
PD-3.	SITE PLAN	10
PD-4.	SOLAR ARRAY DETAILS	13
PD-5.	SOLAR FACILITY DETAILS	15
PD-6.	TYPICAL PROJECT SUBSTATION	16
PD-7.	TYPICAL ENERGY STORAGE FACILITY	18
PD-8.	TYPICAL 230-KV GEN-TIE TOWER	30
AES-1 – AES-5.	SITE PHOTOS	42
AG-1.	IMPORTANT FARMLANDS	60
AG-2.	WILLIAMSON ACT CONTRACT LANDS	61
MFS-1.	PENDING, APPROVED, AND COMPLETED PROJECTS	282

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
AMP	Agricultural Management Plan
APN	Assessor's Parcel Number
BMPs	best management practices
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
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CDA	Community Development Agency
CDC	Centers for Disease Control
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
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
CO2e	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

ACRONYMS AND ABBREVIATIONS (Cont'd)

DOC	California Department of Conservation
DOD	Department of Defense
DPR	California Department of Pesticide Regulation
DSRP	Decommissioning and Soil Reclamation Plan
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
HCP	Habitat Conservation Plan
HMBP	Hazardous Materials Business Plan
I&R	Illingworth & Rodkin
IS/MND	Initial Study/Mitigated Negative Declaration
ISR	Indirect Source Review
JLUS	Joint Land Use Study (NAS Lemoore)
JLUSPC	JLUS Policy Committee
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
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
LAMP	Local Agency Management Program
LOA	Live Oak Associates
LOS	Level of Service
M&I	Municipal and Industrial (water supply)
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MMT	Million Metric Tons
MND	Mitigated Negative Declaration
MTA	Moore Twining Associates

ACRONYMS AND ABBREVIATIONS (Cont'd)

MW	Megawatt
NAHC	Native American Heritage Commission
NASL	Naval Air Station Lemoore
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
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NPIC	National Pesticide Information Center
OEHHA	California Office of Environmental Health Hazard Assessment
O&M	operations and maintenance
OPR	Governor's Office of Planning and Research
OWTS	Onsite Wastewater Treatment System
PEIR	Program (or Programmatic) Environmental Impact Report
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
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
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SGF	Solar Generating Facility
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Office
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLOCAPCD	San Luis Obispo County Air Pollution Control District
SMAQMD	Sacramento Metropolitan Air Quality District
SoCalGas	Southern California Gas Company
SR	State Route
SRP	Soil Reclamation Plan

ACRONYMS AND ABBREVIATIONS (Cont'd)

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
USBR	U.S. Bureau of Reclamation
USDOT	U.S. Department of Transportation
USEIA	U.S. Energy Information Administration
USEPA	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
WRP	Water Resources Planning
WSA	Water Supply Assessment
WSP	Westlands Solar Park
WWD	Westlands Water District

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 Daylight Legacy Solar Project and Gen-Tie Line. 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.

1.2. THIS IS/MND IS TIERED FROM THE PROGRAM EIR ON THE WESTLANDS SOLAR PARK MASTER PLAN AND GEN-TIE CORRIDORS PLAN

The Daylight Legacy Solar Project is located within the Westlands Solar Park (WSP), a master planned solar complex covering approximately 20,938 acres in west-central Kings County. The WSP Master Plan and Gen-Tie Corridors Plan was prepared by the Westlands Water District (WWD) to provide policy guidance for the reuse of retired farmlands owned by WWD, which comprise approximately half of the Master Plan area. In compliance with State CEQA Guidelines Section 15168, the WWD prepared a Program EIR (PEIR) (SCH No. 2013031043) which addressed the potential environmental impacts associated with future solar development under the WSP Master Plan and Gen-Tie Corridors Plan. The PEIR also addressed the potential impacts associated with the planned gen-tie corridor extending from the WSP to the Gates substation to the west, which is required for the transmission of WSP solar

generation to the State electrical grid. On January 16, 2018, the WWD Board of Directors certified the PEIR under CEQA and approved the WSP Master Plan and Gen-Tie Corridors Plan as a WWD policy document.

The PEIR on the WSP Master Plan and Gen-Tie Corridors Plan (hereafter "WSP Master Plan PEIR") was prepared in close coordination with the staff of the Kings County Community Development Agency (CDA), in recognition of the County's role as a responsible agency for the approval of Conditional Use Permits (CUPs) for individual solar generating facilities (SGFs) to be developed within the WSP Master Plan area. This approach was intended by both WWD and Kings County CDA to provide for the tiering of subsequent MNDs from the PEIR, as provided under CEQA Guidelines Section 15168 (see "Tiering under CEQA" below for further discussion). The Draft PEIR incorporated all revisions requested by the Kings County CDA with the express purpose of making the PEIR consistent with County practices, and thus facilitating the ability of the Kings County Planning Commission to adopt subsequent MNDs that would be tiered from the certified PEIR. This would also enable the certified PEIR to be incorporated by reference into the subsequent MNDs prepared by Kings County (per CEQA Guidelines Section 15150), and would enable the Planning Commission's consideration of the contents of the certified PEIR when adopting the subsequent MNDs for solar projects proposed within the WSP Master Plan area.

TIERING UNDER CEQA

The concept of tiering is addressed in CEQA Guidelines Sections 15152 and 15168(c). "Tiering" refers to the coverage of general environmental matters in broad, program- or plan-level EIRs, such as the WSP Master Plan PEIR, with subsequent focused environmental documents prepared for individual projects that implement the program or plan. The project environmental document incorporates by reference the broader discussions in the Program EIR and concentrates on project-specific issues. The CEQA Statues and the Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the Program EIR and by incorporating those analyses by reference.

The Program EIR evaluated the environmental impacts of the WSP Master Plan to the greatest extent possible. Tiering allows subsequent environmental review to rely on the WSP Master Plan PEIR for the following:

- A discussion of general background and setting information for environmental topic areas;
- Overall growth-related issues;
- Issues that were evaluated in sufficient detail in the Program EIR and for which there is no significant new information or change in circumstances that would require further analysis; and
- Long-term cumulative impacts.

Subsequent tiered environmental documents should incorporate relevant information from the WSP Master Plan PEIR including:

- A summary of background (setting information);
- Identification of applicable standards of significance; and
- Identification of applicable impacts and mitigation measures.

LEAD AGENCY

The WWD was the CEQA Lead Agency responsible for preparation and certification of the Westlands Solar Park Master Plan and Gen-Tie Corridors Plan PEIR. As mentioned, Kings County is a Responsible Agency under CEQA for purposes of the PEIR since the County is responsible for the approval of Conditional Use Permits for individual solar projects proposed within the WSP Master Plan area.

Under CEQA Guidelines Section 15096(a), a Responsible Agency complies with CEQA by considering the EIR or MND prepared by the Lead Agency and by reaching its own conclusions on whether and how to approve the project involved. This provides for the Kings County Planning Commission's consideration of the WSP Master Plan and Gen-Tie Corridors Plan PEIR in the course of its CEQA review of subsequent solar projects covered by the PEIR.

Under CEQA Guidelines Section 15052, a Responsible Agency may assume the role of Lead Agency if it finds that further environmental documentation is required under CEQA in conjunction with a subsequent project-specific approval within its purview. This provides for Kings County's preparation of a subsequent MND that is tiered from the Program EIR for purposes of CUP approval.

In summary, the CEQA Guidelines provide for Kings County's preparation of an MND for the Daylight Legacy Solar Project, as a tiered and subsequent environmental document to the Program EIR on the Westlands Solar Park Master Plan and Gen-Tie Corridors Plan. Under CEQA, Kings County may also incorporate by reference certain information and evaluation contained in the Program EIR that is applicable to the Daylight Legacy Solar Project, although the MND must include a summary of background/setting information, identification of standards of significance, and discussion of project-specific impacts and mitigation measures. The information and evaluation that is incorporated by reference is not required to be repeated or duplicated in the MND, provided the Planning Commission considers the contents of the Program EIR in making its decision to adopt the MND.

CHAPTER 2 – DESCRIPTION OF THE PROPOSED PROJECT

2.1. BACKGROUND INFORMATION

1. Project Title

Daylight Legacy Solar Project and Gen-Tie Line
Kings County Conditional Use Permit File No: CUP No. 23-03.

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

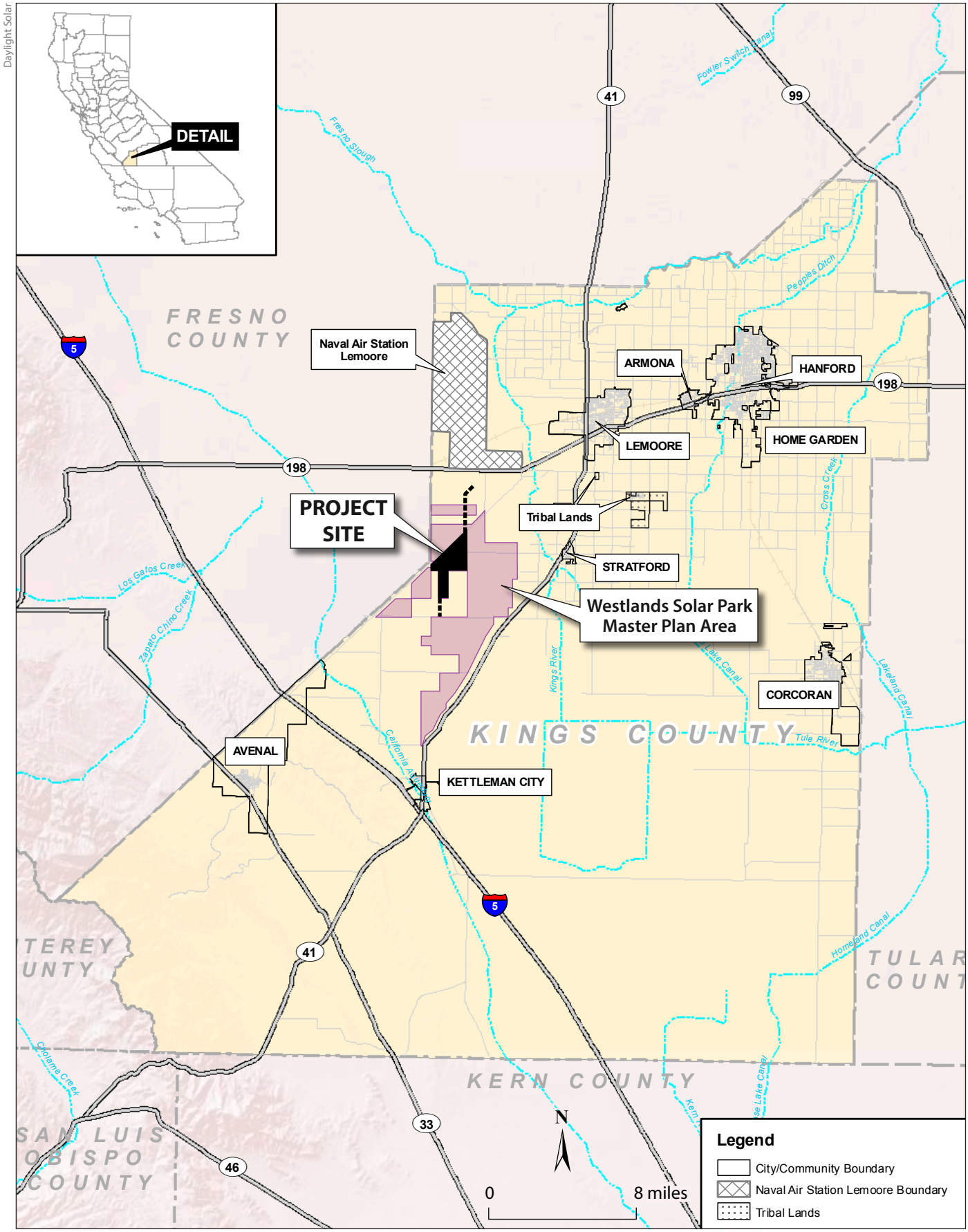
Noelle Tomlinson, Planner II
559-852-2697
Noelle.Tomlinson@co.kings.ca.us

4. Project Location

Daylight Legacy Solar Project. The 2,107-acre Daylight Legacy Solar Project site is located on the southeast side of Avenal Cutoff Road, between 25th and Nevada Avenues (see Figures PD-1 and PD-2). The project site includes several Assessor's Parcel Numbers as listed in the table below. All of the project parcels are under Farmland Security Zone Contract (18-year) under the Williamson Act.

Assessor's Parcel Number	Acres
026-010-028	176.9
026-300-004	2.0
026-300-031	268.4
026-300-032	346.3
026-300-033	320.0
026-300-043	200.3
026-300-044	473.0
026-320-002	160.0
026-320-003	160.0
Total	2,106.9

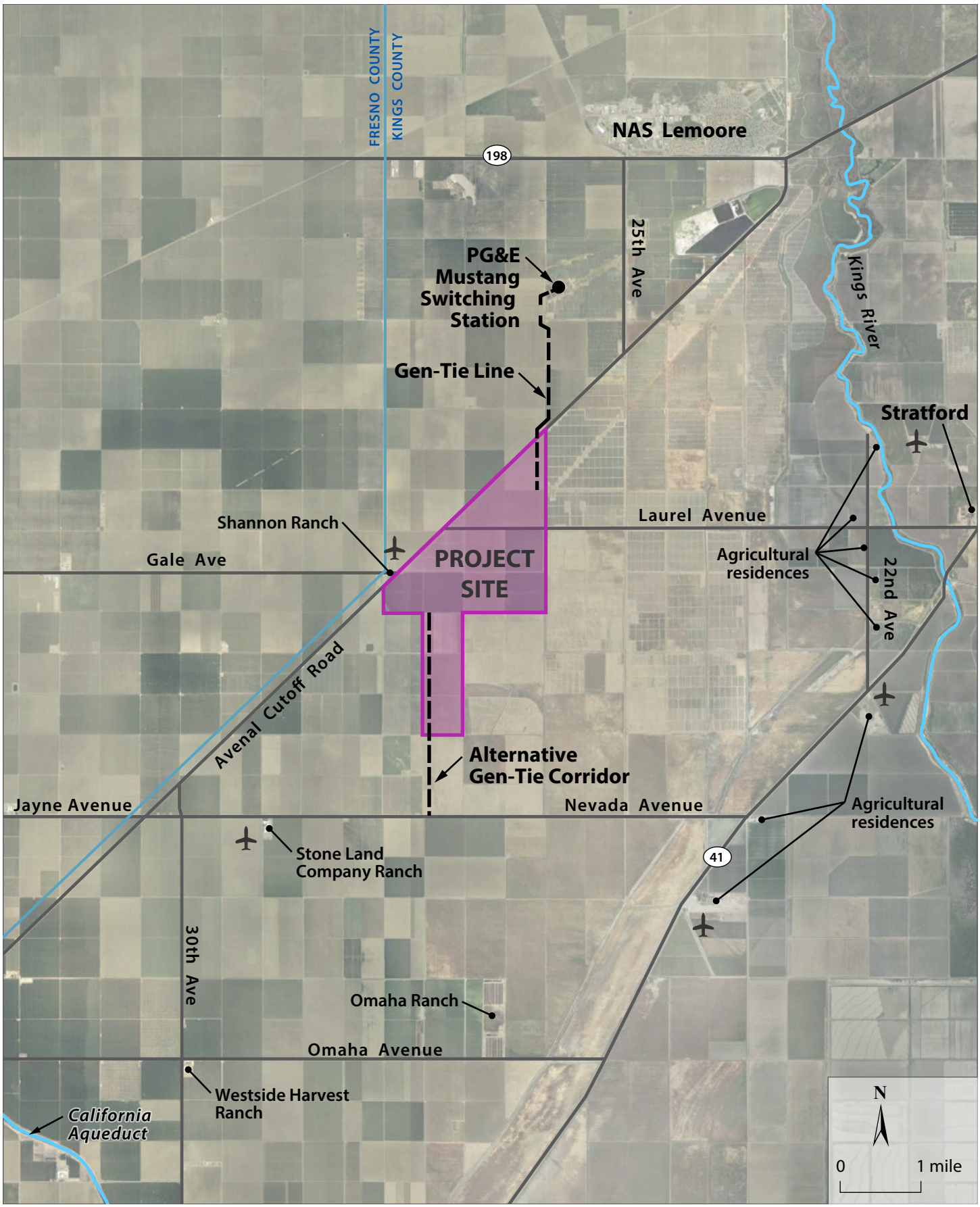
Gen-Tie Line. The CUP application includes a 230-kV Gen-Tie Line extending approximately 2.5 miles from the planned on-site substation northward across Avenal Cutoff Road to the existing PG&E Mustang Switching Station (see Figures PD-1 and PD-2). A second gen-tie corridor extending to the south is included in the subject CUP application as an alternative to the planned gen-tie line. The southern gen-tie alternative would commence at a relocated substation site in the western portion of the project site between Lincoln and Madison Avenues, and would extend southward for 2.5 miles to Nevada Avenue. The northerly 1.5 miles of the alternative gen-tie line would be within the Daylight Legacy Solar Project site, with the southern segment running for one mile beyond the southern project boundary through the approved Cherry Solar Project site adjacent to the south.



Source: Kings County Community Development Agency

Regional Location

Figure PD-1



Source: Google Earth, 2023

Project Vicinity

Figure PD-2

5. Project Sponsor's Name and Address

Westlands Solar Park Holdings III, LLC
Robert G. Dowds, Manager
4700 Wilshire Boulevard
Los Angeles, CA 90010
Contact: Mohammed T. Kabir

6. General Plan Designation

The 2035 Kings County General Plan designates the entire project site and gen-tie corridor as "General Agriculture – 40 acre."

7. Zoning

Pursuant to the Kings County Development Code, the entire project site and the southern segment of the gen-tie line are located within the General Agricultural – 40 acre minimum (AG-40) zone district. The segment of the gen-tie line extending north of Kansas Avenue is in the Exclusive Agriculture – 40 acre minimum (AX) zone district.

2.2. PROJECT DESCRIPTION

SITE LOCATION AND DESCRIPTION

Daylight Legacy Solar Project Site

The Daylight Legacy Solar Project would occupy an approximately 2,107-acre site located on the southeast side of Avenal Cutoff Road, between 25th Avenue and Nevada Avenue (see Figures PD-1 and PD-2). The project site includes several Assessor's Parcel Numbers as listed in section 2.1 above. All of the project parcels are under Farmland Security Zone Contract (18-year) under the Williamson Act.

The Daylight Legacy Solar Project site is virtually level with elevations ranging from a high of 244 feet above mean sea level (amsl) at the western-most site boundary near Avenal Cutoff Road to a low of 221 feet amsl at the eastern site boundary near Laurel Avenue. Direct access to the site is available from Avenal Cutoff Road which runs along the northwestern site boundary for a distance of 2.75 miles, and from Laurel Avenue which passes through the northern portion of the site. Several former agricultural irrigation canals and ditches run alongside and within the project site, but these are no longer used and are dry. Historically, the project site has been used for the cultivation of crops such as tomatoes, cotton, and wheat. The project site includes five agricultural wells dispersed throughout the site. Other on-site structures include: several irrigation pump stations, filter stations, tanks, and standpipes in various locations; four WWD water conveyance pipelines (described below), and one former oil/gas well (described below); a 12-kV electric distribution line running along a portion of the unimproved 27th Avenue alignment along the eastern site boundary; and a 12-kV power line running along the unimproved 28th Avenue alignment along the western site boundary. There are no habitable structures, barns or outbuildings on the site.

Four agricultural water distribution pipelines traverse the project site from west to east, all of which run along section lines defined by the unimproved Lansing, Madison, Lincoln and Manteca Avenue

alignments. These pipelines are owned and managed by the Westlands Water District and are part of the District-wide system of lateral pipelines that deliver imported surface water from the San Luis Canal/California Aqueduct for the purpose of agricultural irrigation. The buried pipelines and their easements would remain on the project site and would be incorporated into the project site plan.

An existing natural gas transmission pipeline operated by SoCalGas traverses the site from southwest to northeast in an easement that generally parallels Avenal Cutoff Road at a distance of approximately 0.5 mile from the roadway.

There is one former oil/gas well located at the western end of the site, just east of the unimproved 28th Avenue alignment and south of Avenal Cutoff Road. The well was a dry hole, and was plugged and abandoned in 1984. The well site would be avoided by project elements and kept clear of obstructions.

The lands surrounding the project site on the north and west consist of agricultural lands planted in row crops or tree crops, with some fields fallowed seasonally. The Shannon Ranch complex (including 20 dwellings) is located opposite Avenal Cutoff Road to the west, and the Stone Land Company Ranch is located 2.2 miles southwest on Nevada Avenue. Several solar generating facilities are located to the northeast and east including: the 200-MW Mustang/Orion/Kent South Solar Projects completed in 2017, located 0.8 mile northeast; the 250-MW Aquamarine Solar Project, completed in late 2021, located adjacent to the northeast; the recently completed 250-MW Solar Blue Project located adjacent to the east, and the recently completed 150-MW Castanea Solar Project located approximately 1.1 miles to the southeast. Recently approved solar projects in the vicinity include: the 250-MW Grape Solar Project located approximately 1.0 mile southeast, and the 250-MW Cherry Solar Project located adjacent to the southeast, both of which are scheduled to commence construction in 2024.

Gen-Tie Line Corridor

The planned gen-tie line to serve the Daylight Legacy Solar Facility would occupy a 175- to 250-foot wide corridor extending northward 0.5 mile from the planned on-site substation to the northern site boundary, then crossing over Avenal Cutoff Road and extending a further 2.0 miles over private lands along the unimproved 26th Avenue alignment to the existing PG&E Mustang Switching Station. The lands to be traversed by the gen-tie line are currently planted in row crops. The gen-tie would traverse portions several Assessor's Parcel Numbers listed in the table below. The project applicant would acquire right-of-way for the gen-tie from the landowners in the form of easements. All of the affected parcels are under Land Conservation Contracts (9-year) under the Williamson Act. Electrical facilities such as gen-tie lines are deemed to be compatible uses with Land Conservation Contracts under the Williamson Act.

Assessor's Parcel Number	Gen-Tie Easement Acreage
026-010-009	11.3
026-010-027	3.6
026-010-035	3.9
026-010-043	10.6
026-010-047	2.0
024-260-033	15.2
Total	46.6

Regarding the alternative gen-tie corridor, the northern 1.5-mile segment of the alternative gen-tie corridor would pass through lands within the Daylight Solar Project site which are under Farmland Security Zone (FSZ) contracts under the Williamson Act and are currently planted in row crops. The southern one mile segment of the gen-tie corridor would pass through lands of the Cherry Solar Project which are also under FSZ contracts and are currently planted in row crops. The CUP for the Cherry Solar Project was approved by Kings County in June 2022 (CUP No. 22-05), and the approved site plan for that project includes a 250-foot wide corridor for the alternative gen-tie line. The alternative gen-tie corridor would traverse one Assessor's Parcel Number: 026-320-017 (479.1 acres), of which 30.46 acres is shown on the Cherry Solar site plan as lying within the 250-foot wide gen-tie easement.

PROJECT OVERVIEW

Solar Generating Facility

The Daylight Legacy Solar Project is planned to generate at total of 300 MW (AC) of electrical output from solar photovoltaic (PV) modules (see Figure PD-3). The project is planned to be constructed over a 12-month period in 2025 and 2026.

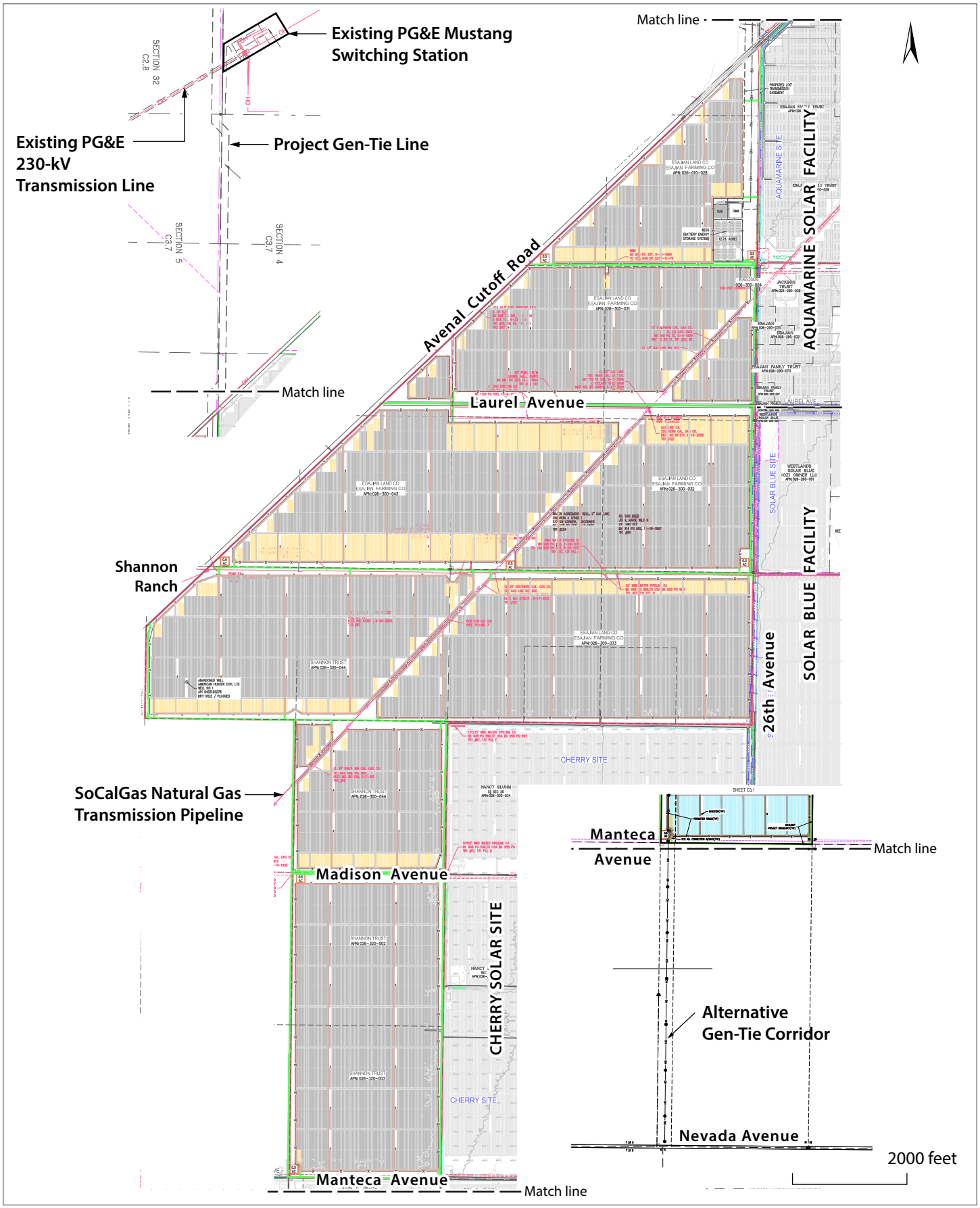
The solar modules would be mounted on a series of horizontal single-axis trackers which would be oriented north-south and rotate the solar arrays in an east-west direction. The solar modules produce low voltage direct current (DC) power which is conveyed to power conversion stations (PCSs) to be converted to alternating current (AC) power and stepped up to collection voltage of 34.5 kV. The project would include a total of 83 PCSs with power rating of 4.2 MW each.

The Project would include an electrical substation, a battery storage facility, and an Operations and Maintenance (O&M) facility, all of which would be located together within an approximately 15-acre area in the northeastern portion of the project site. The on-site substation would step up the generated power from 34.5-kV collection voltage to 230-kV where the solar generation would be conveyed to the gen-tie line described below.

The on-site battery storage facility would include 300 battery containers which would be used to optimize power delivery to the grid by storing excess generation during low demand periods, and supplying power to the grid when demand is high. The energy storage systems are planned to consist of lithium-ion batteries housed in pre-fabricated metal structures. Each battery storage unit would have a storage capacity of approximately 4 MW hours, so the project battery storage facility would provide a total energy storage capacity of up to 1,200 MW hours.

Gen-Tie Line

The solar generation from the Daylight Legacy Solar Facility would be transferred from the project to a new 230-kV gen-tie line extending from the project substation northward 2.5 miles to the existing PG&E Mustang Switching Station. The gen-tie line would occupy a 175- to 250-foot wide corridor extending northward from the planned on-site substation for 0.5 mile to the north project boundary, then crossing over Avenal Cutoff Road and extending a further 2.0 miles within an exclusive easement along the unimproved 26th Avenue alignment to the existing PG&E Mustang Switching Station. The gen-tie line would consist of a three-phase electrical circuit with conductors strung on a series of tubular steel poles (TSPs or monopoles) ranging in height from 100 to 180 feet. It is estimated that the gen-tie line would include up to 20 monopoles.



Source: DK Engineering

Site Plan

Figure PD-3

If selected, the southern alternative gen-tie corridor would extend south from the relocated project substation for 2.5 miles to Nevada Avenue, with the southern 1-mile segment located within an exclusive easement within the approved Cherry Solar Project (CUP No. 22-05) adjacent to the south. The alternative gen-tie line would consist of a three-phase electrical circuit with conductors strung on a series of tubular steel poles (TSPs or monopoles) ranging in height from 100 to 180 feet. It is estimated that the alternative gen-tie line would include up to 20 monopoles.

Modifications to the PG&E Mustang Switching Station

Improvements to the existing PG&E Mustang Switching Station would be required to accommodate the electrical generation from the Daylight Legacy Solar Facility. The modifications would include addition of new bays, circuit breakers, capacitor banks, shunt capacitors, disconnect switches, protective relaying, metering and control equipment, telemetering equipment, an electric grounding system, and underground conduits or trench systems, and other electrical equipment. It is expected that these project-related improvements would be accommodated within the existing fence line of the switching station. The modified switching station would be unstaffed, with automated features and remote-control capabilities. The details of the interconnection at the switching station would be determined by PG&E during the engineering design phase.

In order to provide connection between the project gen-tie line and the Mustang Switching Station, it is anticipated that PG&E would install four (4) double-circuit poles and five (5) spans of conductor between the Mustang Switching Station and the last structure of the project gen-tie line.

Since the existing Mustang Switching Station is owned by PG&E, the planned improvements required for interconnection, described above, would be subject to the jurisdiction of the California Public Utilities Commission (CPUC). CPUC General Order No. 131-D establishes that local jurisdictions are preempted from regulating electric power line projects, distribution lines, substations, or other electric facilities constructed by public utilities subject to the CPUC's jurisdiction. As such, the County does not have discretionary permit authority over the substation or the interconnection to the substation as planned for the Daylight Legacy Solar Project. The specific upgrades to the existing Mustang Switching Station to provide interconnection for the Daylight Legacy Solar Project would be determined and constructed by PG&E under the jurisdiction of the CPUC. The CPUC may rely on this IS/MND to fulfill its CEQA review obligations for any substation or interconnection facility improvements under its jurisdiction that are necessary to serve the project.

Project Purpose and Objectives

The purpose and objectives of the Daylight Legacy Solar Project are as follows:

- Generate up to 300 megawatts 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 would replace existing fossil-based generation and thereby contribute to the overall reduction in greenhouse gas emissions.

- Assist the State in achieving the energy storage target set forth in AB 1514 by providing a 300 MW battery energy storage system with a 4.0 hour capacity, for a total storage capacity of approximately 1,200 MW hours.
- Provide for the economically viable and environmentally beneficial reuse of the site's physically impaired agricultural soils.
- Provide a utility-scale solar generation facility on highly disturbed lands which provide minimal habitat value for wildlife.
- 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.

SOLAR GENERATING FACILITY

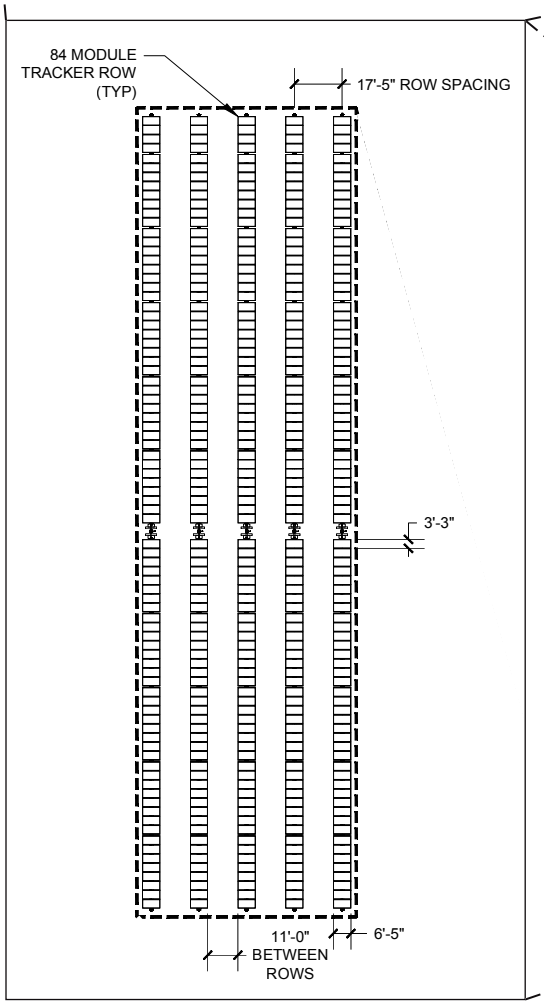
As discussed above, the solar project site consists of several parcels covering a total of approximately 2,107 acres. The project facilities would include the following components, each of which are described in greater detail below:

- Photovoltaic (PV) Modules and Trackers
- Power Conversion Stations (PCSs)
- Project Substation
- Telecommunications Facilities
- Meteorological Data Collection System
- Battery Energy Storage System (BESS)
- Operations and Maintenance (O&M) Facilities
- Site Access Roads
- Lighting
- Signage
- Perimeter Fencing

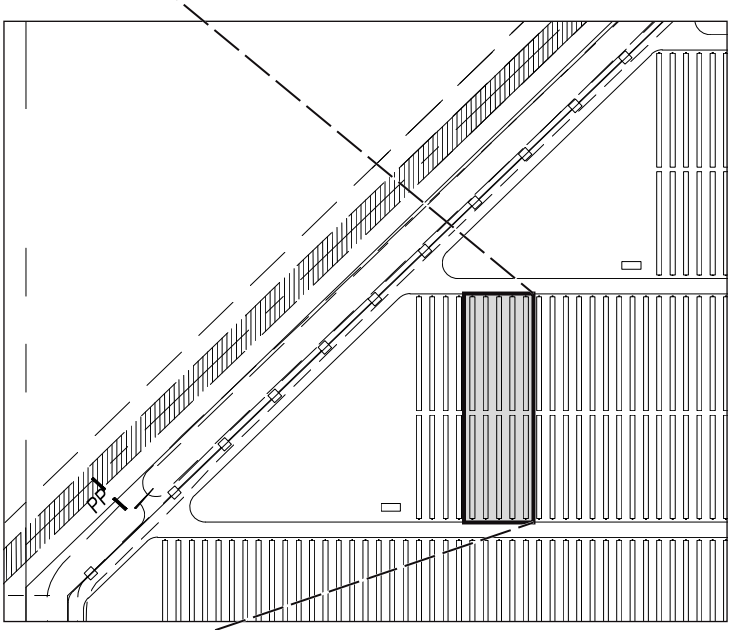
Photovoltaic (PV) Modules and Trackers

The project would utilize photovoltaic (PV) panels or modules to convert sunlight directly into electricity. The photovoltaic modules selected for the project would be composed of poly-crystalline silicon solar cells arranged on panels measuring up to 8 feet by 4 feet, and protected with tempered glass panes (see Figure PD-4). The PV cells are dark in color to maximize absorption and minimize reflectance of sunlight. Individual panels would be installed on tracker mounting systems which would rotate to follow the arc of the sun over the course of the day. The PV panels and mounting systems would be supported by steel posts (cylindrical pipes, H-beams, or C-channels) which would be driven into the ground using truck-mounted vibratory drivers. The support posts would be installed at approximately 10 foot intervals to depths of 4 to 10 feet, with actual depths depending on localized soil conditions and load factors.

Solar PV Modules on Horizontal Trackers



Solar Array



Plan Detail

Typical Solar Array Details

Figure PD-4

The completed rows of solar modules would be spaced up to 20 feet apart (on center), with the tracking pivot point approximately 5.5 feet above the ground surface. At maximum tilt, the solar modules would reach a height of up to 10 feet above ground level, depending on the module size and pivot height of the mounting system, while the lower module edge would be approximately 2 feet from the ground surface at its lowest point. When the modules are in their horizontal position (at noon or at rest), the rows of panels would be separated by up to 12 feet of clear area.

Power Conversion Stations (PCSs)

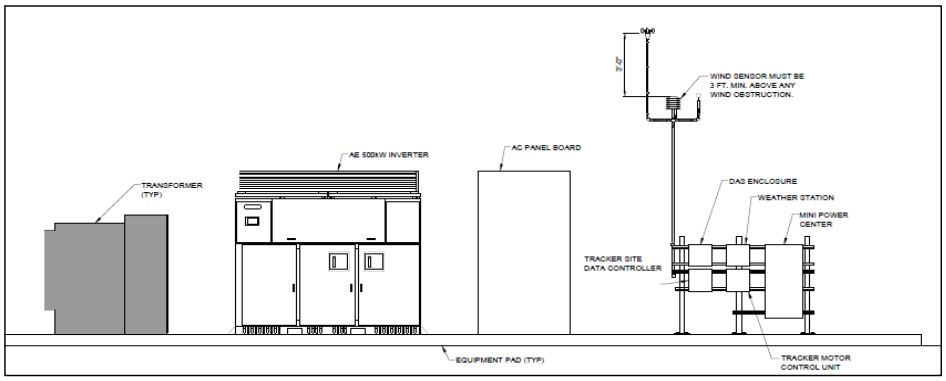
The electrical output from the PV modules would be collected as DC (direct current) by cables harnessed to the underside of the modules and collected in combiner boxes at each array and then delivered via underground cables to the Power Collection Stations (PCSs) dispersed throughout the solar facility (see Figure PD-5). The PCSs would include inverters and transformers to convert the generated power to collection voltage. The inverters would convert the DC electrical output to AC, and the transformers would step up the generated voltage to intermediate collection voltage (e.g., 34.5-kV). The converted power would be conveyed via buried cables to the project substation. Trenching for cables would occur in the project driveways and would be approximately 3 feet wide and 4 feet deep and would be backfilled with native material after cables are laid. The PCSs would be placed on equipment pads at predetermined locations where each PCS would serve approximately 4.2 MW of AC power, or the output from approximately 8,796 modules. The 300 MW solar project is planned to include approximately 83 PCSs, each on a concrete pad measuring approximately 32 by 13 feet.

Project Substation

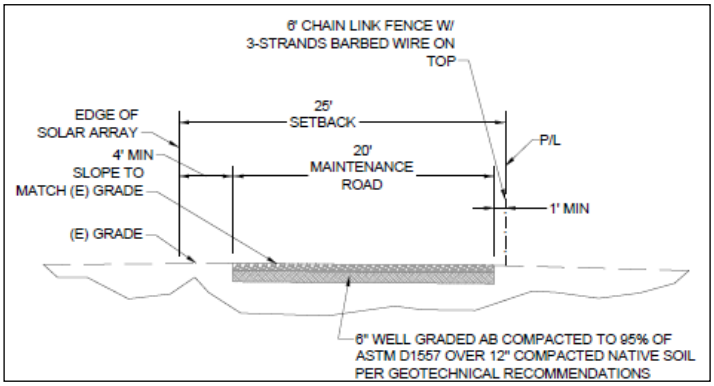
Output from the PCSs would be transferred via buried electrical conduits and cables to the on-site substation in the northeast portion of the project site. The substation would collect consolidated solar generation from the PV collection system and step-up the collection voltage from 34.5-kV to 230-kV via high-voltage transformers. The stepped-up voltage would then be uploaded from the substation to the gen-tie line and conveyed to the point of interconnection at the PG&E Mustang Switching Station located 2.5 miles north. The project substation would include transformers, breakers, switches, meters, and related equipment (see Figure PD-6). Interconnection equipment, including the control house, would be installed aboveground and underground within the footprint of the substation. The transformers would contain mineral oil as an insulating fluid, and the substations would be designed to contain any accidental spill of transformer fluid.

The substation would occupy up to 2 acres adjacent to the facility Operations & Maintenance yard. The tallest structural elements within the on-site substation would be dead-end structures up to 75 feet high at the switchyard. Each dead-end structure would require foundations excavated to a depth of 20 feet or more. The substation would be surrounded by an eight-foot high chain-link fence topped with barbed wire and would comply with electrical codes.

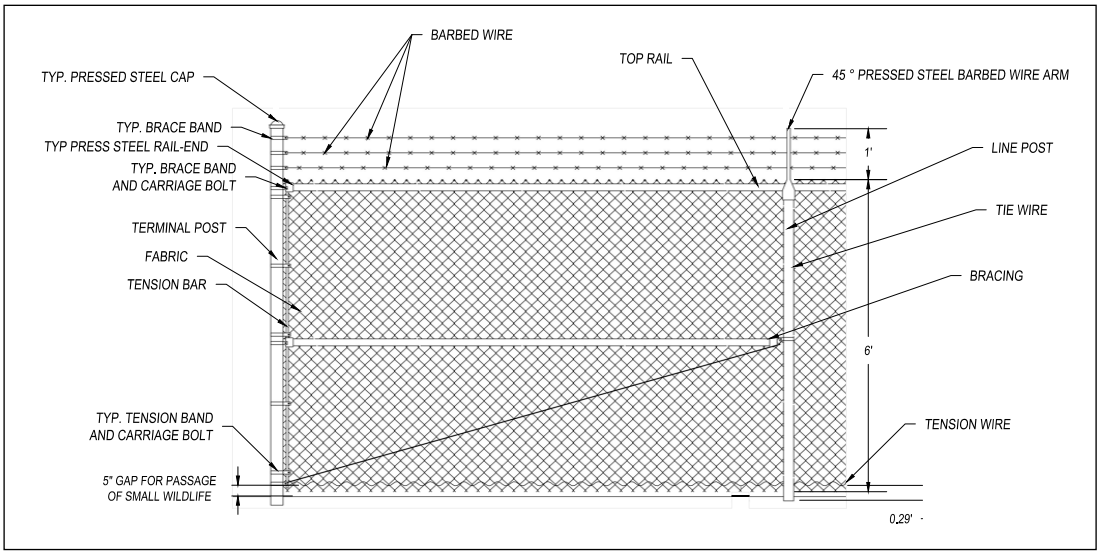
The substation would have access to communication systems in the area to comply with Federal Energy Regulatory Commission/California Independent System Operator/Utility monitoring and control requirements. Compliance would be accomplished by underground lines, aboveground lines, or wireless communication.



Inverter/Transformer Pad



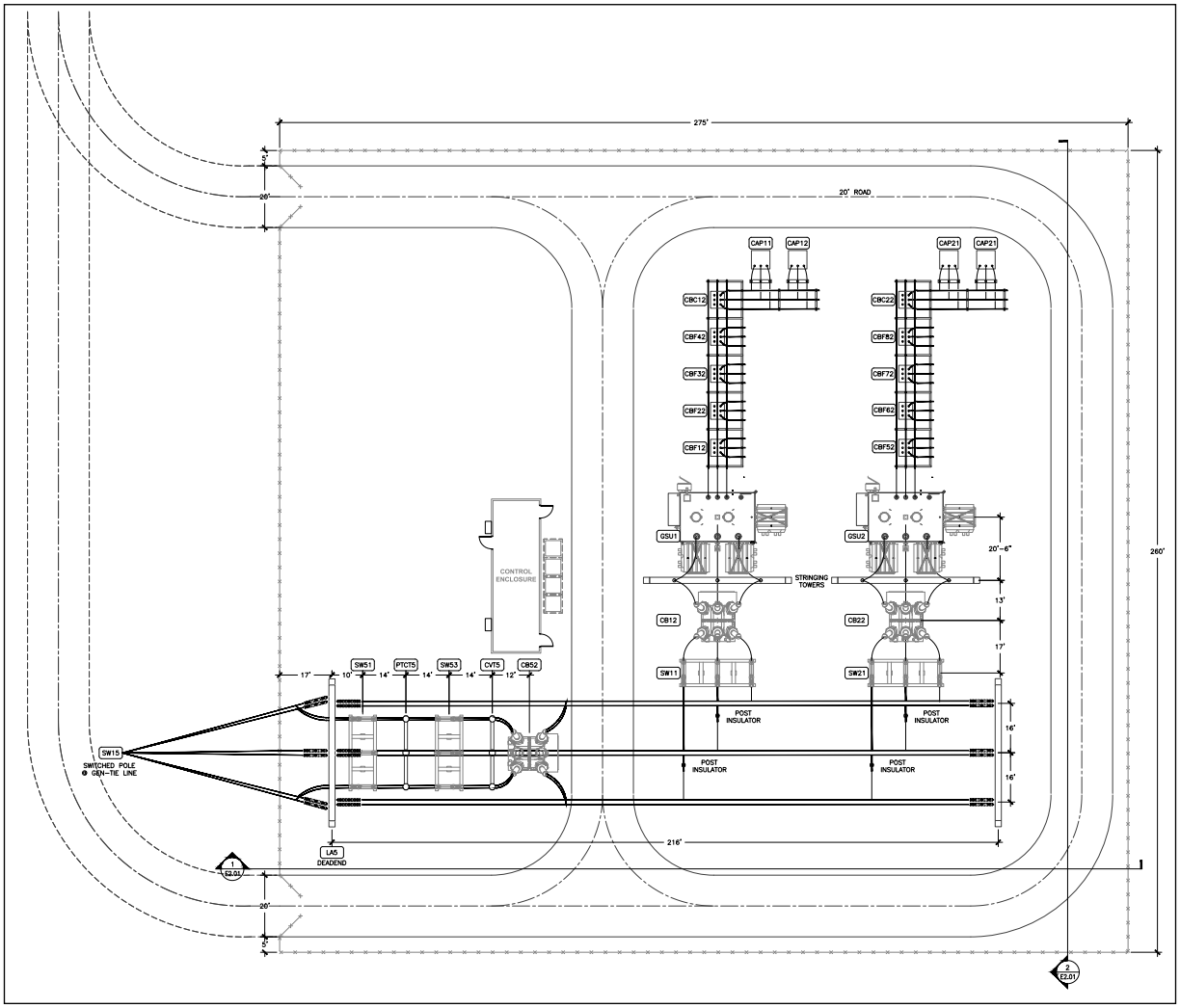
Internal Maintenance Road



Perimeter Fence

Solar Facility Details

Figure PD-5



230-kV Substation Plan

Typical Project Substation

Figure PD-6

Battery Energy Storage System (BESS)

The Daylight Legacy Solar Project would include an approximately 10-acre dedicated battery storage area adjacent to the on-site substation for the purpose of optimizing delivery of generated power to the electrical grid (see Figure PD-7). The battery facilities would consist of 300 prefabricated battery modules or containers, each with a storage capacity of about 4 MW hours, for a total storage capacity of about 1,200 MW hours. The energy storage facility would provide storage of generated power when demand is low, and provide for delivery of stored power when demand is high. The battery storage units would consist of metal containers 40 feet long by 8 feet wide by 8.5 feet high. Each storage unit would be self-contained and would include racks, switchboards, integrated HVAC units, and inverters. The transformers for the battery units would be located outside the battery containers on dedicated equipment pads with each transformer set serving four battery containers. Thus the project battery storage systems would include a total of 300 battery containers and 75 transformers.

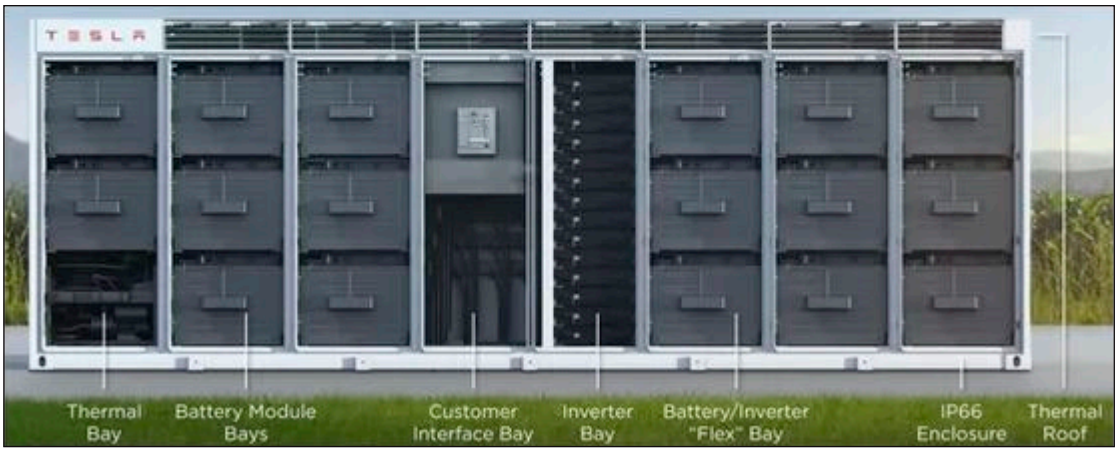
The energy storage system would use one or more proven battery storage technologies such as Lithium Ion, Sodium-Sulphur, or Vanadium-Redox-Flow batteries, and could potentially include flywheel banks housed in electrical enclosures. The enclosures would have appropriate fire suppression systems built to code. The final design would include containment features to prevent the escape of liquids or spills from the energy storage site. 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 energy storage 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 energy storage facility. Energy storage equipment would comply with UL-9540 (Standard for Safety of Energy Storage Systems and Equipment) and account for the results of UL-9540A (large-scale fire test).

Telecommunications Facilities

The solar facility would include a Supervisory Control and Data Acquisition (SCADA) system to provide monitoring of facility operation and remote control of critical components. The solar arrays would be connected by fiber optic or other cabling that would be installed in buried conduit leading to a centrally located SCADA system cabinet. The SCADA systems would be connected to local telecommunications service via overhead lines or buried lines. Telecommunications may also be transmitted wirelessly via a communications tower up to 125 feet tall adjacent to the O&M building. In accordance with Federal Aviation Administration (FAA) Part 77, warning light requirements only apply to structures taller than 200 feet, unless in close proximity to an airport. Since the nearest airport is the Hanford Municipal Airport located approximately 18 miles northeast of the project site, FAA warning lights would not be required. The SCADA servers would either be housed in the on-site O&M building or remotely in a cloud system.

Meteorological Data Collection System

The project would include one or more meteorological monitoring stations ("met" stations) to record key data such as insolation (incident solar radiation), air temperature, precipitation, wind direction and speed, and relative humidity. The met stations would collect meteorological data from up to 13 feet above the ground, or about 3 feet above the maximum height of nearby equipment to allow for accurate wind readings.



Typical Energy Storage Facility

Figure PD-7

Operations and Maintenance Facilities

The project would include an operations yard which would provide storage for operational equipment and materials, and provide parking and maneuvering areas for staff vehicles, delivery trucks, and service vehicles. The operations yard would occupy an area of up to 2 acres, and would include a pre-manufactured operations and maintenance (O&M) building with office space for operations and maintenance staff and to house the on-site telecommunications server. The yard would also include one or more metal storage buildings or containers for storing spare modules and other materials. The parking area would include up to 10 spaces including one ADA space.

Domestic wastewater disposal would be provided by a septic tank and leachfield system located adjacent to the O&M building. The septic system would be designed and constructed in accordance with the Kings County Local Agency Management Program for Onsite Wastewater Treatment Systems ("OWTS"). During construction, sanitary needs would be provided by portable chemical toilets which would be serviced as needed by a private contractor.

Site Access and Internal Circulation

The Daylight Legacy Solar Project would have direct vehicular access from several project entrances on Avenal Cutoff Road and Laurel Avenue. Permanent access through the project would be provided primarily by internal driveways which would run just inside the site perimeter and across the solar fields in north-south direction at intervals of 400 feet or less. The perimeter driveways and primary internal driveways would be surfaced with gravel while minor driveways would consist of native compacted soil. All internal driveways would be 20 feet wide to allow passage and maneuvering of emergency and maintenance vehicles. The distance between the internal parallel internal driveways would provide sufficient access throughout the project to provide access for emergency vehicles and personnel. The internal driveways would be designed and constructed to have a continually durable dust free surface, in accordance with the Kings County Improvement Standards, and would be permeable to allow percolation of rainfall into the underlying soil.

Exterior Lighting

Lighting for the solar facility would be designed to provide minimum illumination for safety and security while avoiding direct light spillover onto public roadways or adjacent properties. Low-level lighting would be installed at the entry gates, substation, PCS, and O&M building. Lighting systems would be light-activated to automatically come on in the evening and shut off in the morning. Lighting within the solar fields would be confined to the PCSs, which would be activated only when needed by switch or motion sensors. There would be no lighting within the solar arrays, along any internal access driveways, or around the facility perimeter. Light fixtures would be hooded so as to be directed only on-site and away from other properties.

Signage

Project signage would consist primarily of identification signs at the permanent project entrances, and safety signage at electrical equipment. The signage would identify the project owner, operator, and emergency contacts and provide safety and security information. Additionally, small-scale signage would be posted at the main entry gates and intermittently along the fencing around the PV panels to indicate "No Trespassing" and "Private Property" for security and safety purposes. During the

construction phase, temporary directional signage would be employed as needed. All signage would conform to the sign standards of the Kings County Development Code.

Perimeter Fencing

Prior to installation of solar arrays, the perimeter of each solar field would be securely fenced and gated to prevent unauthorized access. The perimeter fencing would consist of 6-foot chain-link galvanized metal topped with standard three-strand barbed wire. Fence posts holes would be drilled and then grouted after placement of fence posts. All fence posts would be capped to prevent the entrapment of small birds. Vehicle access gates would be installed at the project entrances on Avenal Cutoff Road and Laurel Avenue; these gates would remain locked when not in use.

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

Construction of Solar Facility

Construction of the Daylight Legacy Solar Facility would involve four major construction phases, as follows:

1) Site preparation activities;
2) Installation of solar arrays, O & M and related facilities;
3) Installation of PCSs and construction of onsite substation; and
4) Installation of the battery energy storage system (BESS).

Construction of the solar facility is expected to occur over an approximately one-year period (180 working days), with site preparation to commence in 2025 and testing to be completed in 2026.

Site Preparation Activities

Pre-construction Activities

The site development process would 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 would be construction mobilization, which would include delivering initial equipment, supplies, and temporary construction trailers to the site.

Clearing and Grading

Prior to facility construction, the site would be cleared of vegetation, graded and compacted. Site clearing and soil preparation would occur incrementally as needed, and would not proceed to a new area until that area is needed for the next construction phase. Vegetative cover would be retained as long as possible to minimize exposed soils and reduce potential for erosion and wind-blown dust.

Since the existing ground is generally level, with only agricultural furrows creating minor terrain roughness, the solar development can be accommodated without mass grading. Grading would balance on-site and no import or export of soils would be required. Ground preparation would include tilling and grading to smooth out existing agricultural furrows, followed by compaction with rollers. The existing topsoil would not be removed. Final grades would be designed to provide for positive drainage. Measures for erosion and sediment control would also be implemented, as described in "Stormwater Management and Erosion Control" below. Prior to installation of solar arrays, the perimeter of each array would be securely fenced and gated to prevent unauthorized access.

Construction Staging

The project would include a central staging area for construction management and support, likely to be located on approximately 30 acres in the northeastern portion of the project site near the project entrance at Laurel Avenue and the 26th Avenue alignment. The staging area would include construction offices, a first aid station, worker parking, equipment storage areas, cleaning and maintenance, and truck unloading area. Portable chemical toilets would provide for sanitary needs and bottled drinking water would be delivered to the site. The staging area would require a power source for temporary lighting, which would be supplied by existing local power distribution lines, with portable generators to provide backup emergency power supply. The staging area would be enclosed by security fencing. During construction, additional satellite staging areas may be located within the project site for temporary material storage and assembly.

Temporary Internal Driveways

Construction access through the project site would be provided by temporary all-weather driveways composed of native compacted soil and treated with dust palliative as needed. Temporary project entrances would include crushed stone and metal riffle plates for removing soil from the wheels of construction vehicles prior to exiting in order to avoid tracking of mud and sediment onto Laurel Avenue and Avenal Cutoff Road.

Workforce

During construction, the number of workers on the project site at any given time would fluctuate depending on the construction stage. Workforce numbers would be greatest during the middle of the construction period when all construction stages would overlap to some degree. During this overlapping period, an average of approximately 350 construction personnel would be on-site, with the number workers reaching a peak of approximately 540 during the busiest time of construction.

Typically, construction would involve 10-hour working days from Monday through Thursday each week. The daily hours of construction would be staggered depending on the construction trade, with start times ranging from 5 to 7 AM, with end of shift times ranging from 2:30 to 5:30 PM. Occasionally, work days and hours may be extended to complete critical components or to make up for schedule delays caused by bad weather. During the hot summer months some workers (e.g., welders) would arrive earlier and leave around mid-day. For safety reasons, certain construction tasks, such as final electrical terminations, must be performed after dark when no energy is being produced.

Based on the project sponsor's past experience with other solar projects at the Westlands Solar Park, it is expected that 25 percent of workers would carpool to and from the project site. During the peak construction period, the construction workers would generate approximately 405 round trips per day

(i.e., 540 X 0.75). Thus the commuting workers would generate total of 810 daily trips (in-bound and out-bound) during the peak construction period. Employee traffic generated during less intensive construction periods would be substantially less.

The construction workforce for the Daylight Legacy Solar Project would be largely drawn from the surrounding communities, with the possible exception of project management personnel. Based on a gravity model using population and distance factors for communities within commuting range, it was determined that the average round-trip commute length for construction personnel would be approximately 92 miles. Construction traffic would access the project site at the construction entrance at Laurel Avenue and the 26th Avenue alignment. All workers would park within the project site at the main construction staging area described above.

Construction Deliveries

Construction materials, equipment and supplies would be delivered to the project site by truck. The construction of the solar facility would involve the use of numerous pieces of construction equipment and support vehicles at various stages of construction. This would 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. This equipment would be brought to the project site when needed and would remain on-site throughout the duration of the activities for which they are needed.

It is estimated that the project would receive an average of 35 deliveries per day over the 180-day construction period. Deliveries of solar modules and support structures, electrical components, concrete and aggregate would occur throughout the construction period. The equipment and material deliveries would originate in various locations in central California and would follow designated truck routes to travel to the project site. It is anticipated that deliveries of solar modules, tracking systems, and major electrical components would originate from the Port of Oakland. It is anticipated that aggregate supplies would be obtained from the nearest source at Sierra Pacific Materials located on Highway 33 between Avenal and Coalinga, and that concrete would be obtained from Viking Ready-Mix in Hanford. All other construction deliveries are expected to originate from the Fresno area. Truck deliveries would normally occur during daylight hours, although some offloading and/or transporting would occur on weekends and during evening hours.

Impervious Surfaces

The coverage of the solar facility site with impervious surfaces would be minimized in order to allow for revegetation and sheep grazing. Solar arrays have a minimal footprint since they are elevated above the ground and mounted on racks supported by narrow profile steel posts. Relatively small areas of impervious surfaces would be created by concrete pads and footings for the inverters/transformers, substation, the O&M building, the battery containers, and asphalt pavement for site entrances and parking area. The internal driveways would consist of compacted earth or would be surfaced with decomposed granite or other approved permeable surface pursuant to the Kings County Improvement Standards, and would include no asphalt pavement or other impervious materials. Table PD-1 below provides a breakdown of impervious surfaces by equipment and facility type. As shown in Table PD-1, over 90 percent of the ground surface of the project site would not be covered by impervious surfaces of the Daylight Legacy Solar Project.

TABLE PD-1

COVERAGE BY IMPERVIOUS SURFACES AND GRAVEL DRIVEWAYS AND PERCENTAGE REMAINING IN VEGETATIVE COVER

Equipment/Facility	Area of Coverage (Square Feet)
Impervious Surfaces	
Inverter/Transformer Pads	34,528
Substation Pad/Footings	2,866
Battery Containers	80,100
O&M Building	1,240
Operations Parking Area (paved area)	328
Total Impervious Surface Coverage	119,062
Total Coverage by Compacted Earth or Gravel Driveways (Pervious)	8,745,600
Total Site Area (2,106.9 acres)	91,776,564
Percentage Impervious in Project	**0.13%**
Percentage Gravel Driveways	9.53%
Percentage Impervious + Gravel Driveways	9.66%
Percentage Remaining in Vegetative Cover (= Total Area minus Impervious Surfaces and Gravel Driveways)	82,911,902 square feet **90.34%**

Concomitant Agricultural Uses

Upon completion of each discrete area of the solar facility, the exposed soil would be revegetated with native seed mix which would support sheep grazing as a concomitant agricultural use to the solar operation. The sheep grazing would continue for the life of the solar project and the resulting agricultural production would ensure compliance with the County's Williamson Act Implementation Procedures, specifically in meeting the criteria for the solar facility to be deemed a "compatible use" under the Williamson Act.

Site Management during Construction

Construction Water Use

During construction, non-potable water would 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 2,107-acre Daylight Legacy Solar Project would average 0.15 acre-feet per acre (af/ac), resulting in a total consumption of 316 acre-feet of water during the 12-month construction period. It is anticipated that water for grading and construction would be obtained from the existing agricultural well on the site or in the vicinity, as was the case during construction of other WSP solar facilities nearby.

Bottled water would be provided to the construction workers for consumption. Sanitary needs during construction would be provided by portable chemical toilets which would be serviced as needed by a private contractor.

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 Daylight Legacy Solar Project 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 would 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 would be determined during the final engineering design stage for each project phase. The project SWPPPs would be submitted to the State Water Resources Control Board prior to initiation of ground disturbing activities for each project phase.

Construction Waste Recycling and Disposal

The waste generated during construction would 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 would be segregated on-site for recycling or disposal at a Class III landfill in accordance with a Solid Waste Management Plan required by Kings County. Consistent with local regulations and the California Green Building Code, the Plan would provide for diversion of a minimum of 50 percent of construction waste from landfills.

Any wastes classified as hazardous such as waste paint, waste solvents, waste oil, degreasing agents, oily rags, concrete curing compounds, adhesives, chemicals, and used batteries would be stored (in an approved storage facility/shed/structure). Hazardous wastes generated during construction would be either recycled or disposed of at a Class I disposal facility, as required by State and local regulations.

Revegetation of Completed Project Areas

Upon completion of each section of the solar facility, the exposed soils beneath and around the solar arrays would be vegetated to prevent erosion and provide dust control. The exposed areas would be planted with an approved native seed mix that would 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 Daylight Legacy Solar Project would involve facility operation and monitoring, facility maintenance and management, and implementation of safety and security measures. These are described in turn below.

Facility Operation and Monitoring

Operational activities would primarily involve monitoring and management of solar generation, which would occur during daylight hours year round. The project proponent would contract with an O&M contractor who would provide operations staff to be stationed at the project O&M facility. Operations staff would manage the facility remotely via SCADA ("Supervisory Control and Data Acquisition") systems. Operators would 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.

Operations and Maintenance Personnel

Up to 5 permanent staff would be on the solar facility site at any given time to perform monitoring duties described above and to conduct visual inspections of equipment, internal roadways, and fencing, and perform maintenance or make repairs as necessary. An additional 4 workers could be on-site intermittently when equipment needs to be repaired or replaced. Panel washing cycles would involve up to 6 workers for up to 6 weeks per wash cycle, which is expected to occur 2 times per year. During the growing season when sheep may be grazing on site, up to 2 sheep herders could be required to manage the rotation of sheep flocks through the site.

Vegetation and Agricultural Management

Upon the completion of construction within a given area of the project, the exposed soils would be revegetated through seeding for slow-growing grasses, with the entire site revegetated upon completion of construction. Vegetative cover would generally be kept low to prevent shading of solar panels and to minimize buildup of combustible fuel loads. The short vegetation cover would also allow passage of emergency vehicles, and maintenance and panel washing vehicles.

The project site vegetation would be kept low primarily through seasonal sheep grazing and also through mechanical means (e.g., mowing, trimming, hoeing) where needed. The sheep grazing would take place on the project site in order to maintain agricultural activity on these lands in conformance with the Williamson Act. (The net vegetated area subject to grazing would be approximately 1,900 acres after subtracting internal driveways, equipment pads, O&M building, substation, battery storage containers, and paved parking area.) The sheep grazing would be managed and controlled by temporary sheep enclosures (i.e., plastic fencing) which would be moved progressively through the project site. Grazing would occur from January until the end of the growing season in May, at which time the sheep would be removed. The details of the sheep grazing program would be further described in the Agriculture Management Plan (AMP) which would be prepared and implemented to ensure maintenance of sustainable agricultural operations on the site throughout the life of the project.

Weed and Pest Control

As required under the County Development Code, the Daylight Legacy Solar Project would include implementation of a Pest Management and Weed Abatement Plan (PMWAP). The Pest Management

Plan would 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 primary objective would be to avoid rodent infestations through preventative measures such as vegetation management (described below) 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.

The Weed Abatement Plan would specify measures to prevent infestation of invasive weed species which would reduce the grazing value of the site, pose a fire hazard, and potentially spread to neighboring farmland. Weed control would mainly consist of a combination of methods, including the use of weed-free seed mixes for site revegetation, and keeping vegetation low through sheep grazing and mechanical methods such as mowing, trimming, and hoeing. Herbicides would be used only selectively where needed using low impact chemicals and practices that minimize impacts to protected biological species. The Pest Management and Weed Abatement Plan would be submitted for County approval prior to issuance of building permits for the Daylight Legacy Solar Project.

Fire Safety

The project would 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. The Fire Department would also require a supply of firefighting water available in storage tank on the project site. The size of the storage tank would be determined by the Fire Department during plan check at the building permit stage. The project proponent would also contribute funds toward the purchase of an all-terrain firefighting vehicle capable of accessing the interior portions of the solar facility. Fire prevention measures would include vegetation management as described above to minimize the potential for grass fires. 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. Vehicles and equipment would be required to be parked or stored away from vegetated areas. All construction and operations personnel would 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 would be mounted at the inverter/transformer pads throughout the project. Employees would be required to be familiar with the use of fire safety equipment, and smoking would be permitted only in designated areas.

As mentioned above, the project would include energy storage facilities consisting of a number of prefabricated electrical enclosures containing battery banks and associated switchboards, inverters and transformers. 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 requires appropriate insulation and venting requirements for these types of systems, further preventing associated risk of fire from the battery enclosures on the project site. Energy storage equipment would comply with UL-9540 (Standard for Safety of Energy Storage Systems and Equipment) and account for the results of UL-9540A (large-scale fire test). Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized hazmat vehicles and equipment along with mandated training for Fire Department personnel.

Hazardous Materials and Hazardous Waste Management

The operation and maintenance of the solar facility would involve the use of small quantities of hazardous materials such as diesel fuel, gasoline, motor oil, mineral oil in transformers, various solvents and detergents, and lead acid-based batteries used for emergency backup, and lithium-ion batteries used in the BESS.

Hazardous materials and wastes would be managed, used, handled, stored, and transported in accordance with applicable local and State regulations. All hazardous materials would be handled, stored, and disposed of in accordance with a Hazardous Material Business Plan (HMBP). Spill prevention and containment would adhere to the requirements set forth in the approved HMBP.

Security

The perimeter of the solar facility would be securely fenced and gated to prevent unauthorized access, as described under "Perimeter Fencing" above. The facility operator would 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 would 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 would be dispatched to the site, as needed, and the County Sheriff's office would be notified as appropriate.

Solar Module Cleaning

The PV modules would be washed periodically to remove dust in order to maintain efficient conversion of sunlight to electrical power. The cleaning interval would be determined by the rate at which electrical output degrades between cleanings. Periodic panel washing would 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 would be required two times per year, and would be accomplished using light utility vehicles with tow-behind water trailers. No chemical cleaners would be used for module washing. It is estimated that water demands from one complete cycle of panel washing would be approximately 3.0 acre-feet for the 300 MW project. This estimate is based on the reported average water usage rate of 0.01 acre-foot per MW at the nearby Aquamarine Solar Facility. Two panel cleaning cycles per year would use approximately 6.0 acre feet of water.

Overall Operational Water Demands

General operational activities, such as washing or rinsing equipment, hand washing, and other non-toilet uses, is estimated to require approximately 30,000 gallons (0.092 acre feet) of non-potable water annually. This is based on the reported consumption rate of 100 gallons per MW per year for the nearby Aquamarine Solar Facility.)

In addition, the sheep used for grazing would each require up to 3 gallons of water per day. Assuming a sheep grazing density of 0.5 sheep per acre over approximately 1,900 acres to be grazed, a total of 950 sheep would be employed. During the course of a 5-month (151-day) grazing period (January through May), the total water requirement for sheep watering would be 430,350 gallons, or 1.32 acre-feet per year.

As discussed above, the washing of solar modules would use approximately 6.0 acre-feet of water annually, based on two washing cycles per year.

Based on the annual water consumption estimates provided above, the combined operational water use by the Daylight Legacy Solar Facility for panel washing (6.0 afy), sheep watering (1.32 afy), and general operational uses (0.09 afy) would total approximately 7.41 acre-feet of water annually over the approximately 2,107-acre project site. This is equivalent to 0.0035 acre-feet per acre.

Operational water supplies would either be provided by imported surface water available from Westlands Water District (WWD) delivered through its existing system of lateral pipelines, or from groundwater pumping from existing agricultural wells on the project site. As noted above, the operational water usage rate at the Daylight Legacy Solar Facility is estimated to be 0.0035 acre-feet per acre per year. Under WWD's Groundwater Sustainability Plan (GSP), groundwater pumping at the site would be limited to 0.6 afy per year, which would be more than adequate to provide for the estimated operational water demands of 0.0035 afy per year.

Small quantities of potable water would be required at the solar facilities for drinking and other uses. Potable water would be delivered to the facility by a water delivery service.

DECOMMISSIONING AND SITE RECLAMATION

At the end of its useful life, the Daylight Legacy Solar Facility would be decommissioned and the land returned to its pre-project farmable state. (It is anticipated that the initial purchase contract for solar generation would have a term of up to 40 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 would be decommissioned and the site would be reclaimed in accordance with the Decommissioning and Soil Reclamation Plan required by the County. The Decommissioning and Soil Reclamation Plan would be subject to County approval prior to issuance of a building permit.

Decommissioning of the solar facility would begin with removal of the solar modules, which would be recycled or disposed of as e-waste. The racks and trackers would be disassembled, and the steel posts supporting the racks would be removed. Site infrastructure would be removed, including inverters, transformers, and substation, as well as all electrical cables, concrete pads, fences, and other related equipment and material. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried by standard construction equipment. Project roads would be restored to their pre-construction condition unless they are needed for a subsequent land use. Equipment and materials would be reused and/or recycled to the extent practicable. Upon complete removal of equipment and salvageable material, the site would be cleared of any remaining trash and debris.

The battery storage system would be decommissioned along with the rest of the solar facility. Batteries may be disposed of as hazardous waste, or recycled, depending on available technology. The batteries would contain a variety of valuable metals, and recycling of these batteries is expected to become increasingly commonplace over time. Some batteries may have remaining storage capacity and may be reused. The chemical components of flow batteries (if employed) may either be disposed of as hazardous waste (i.e., neutralization of the liquid within the battery), or they may comprise valuable elements which would also be recycled or reused.

Since decommissioning activities would involve exposure and disturbance of soils, measures for erosion and sediment control would be implemented in accordance with a Storm Water Pollution Prevention Plan (SWPPP) which would 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.

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

It is expected that the decommissioning of the Daylight Legacy Solar Facility would involve a similar or somewhat lower level of activity than the original project construction. Decommissioning may involve less equipment use, fewer haul truck trips, fewer workers, and less water use for dust suppression, and the time required for decommissioning may be less than the duration of the original project construction.

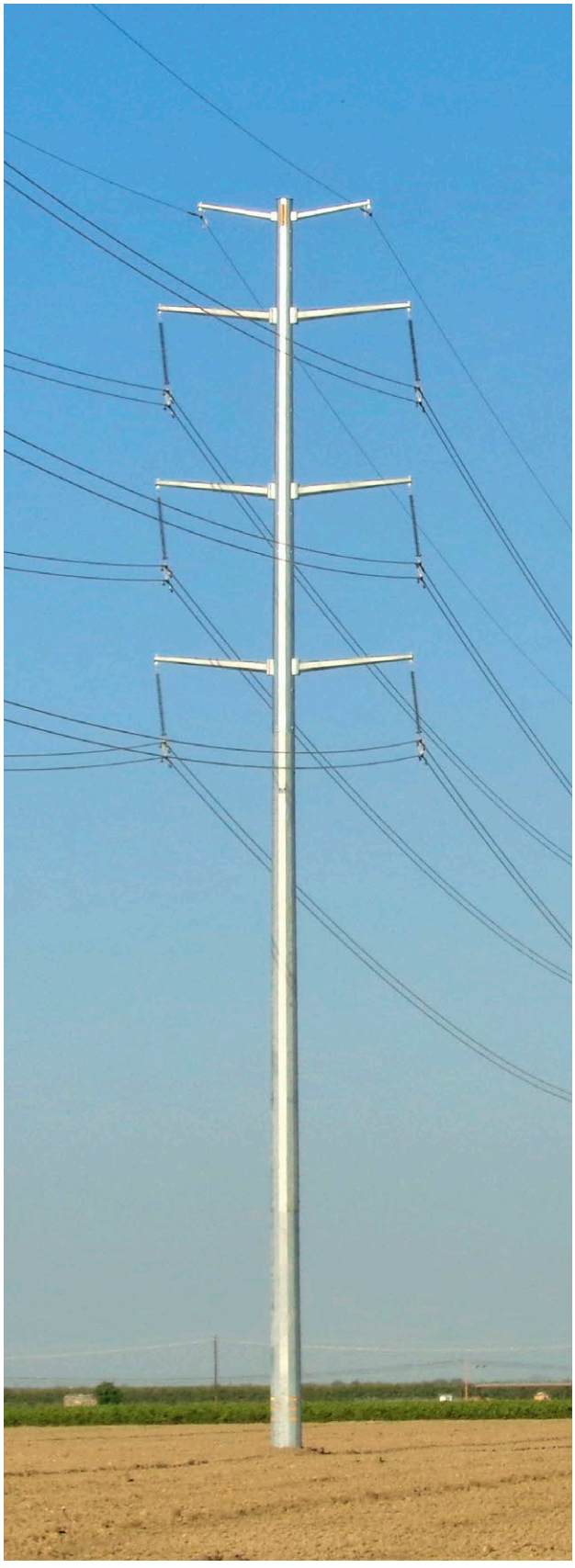
Generation Tie-Line (Gen-Tie)

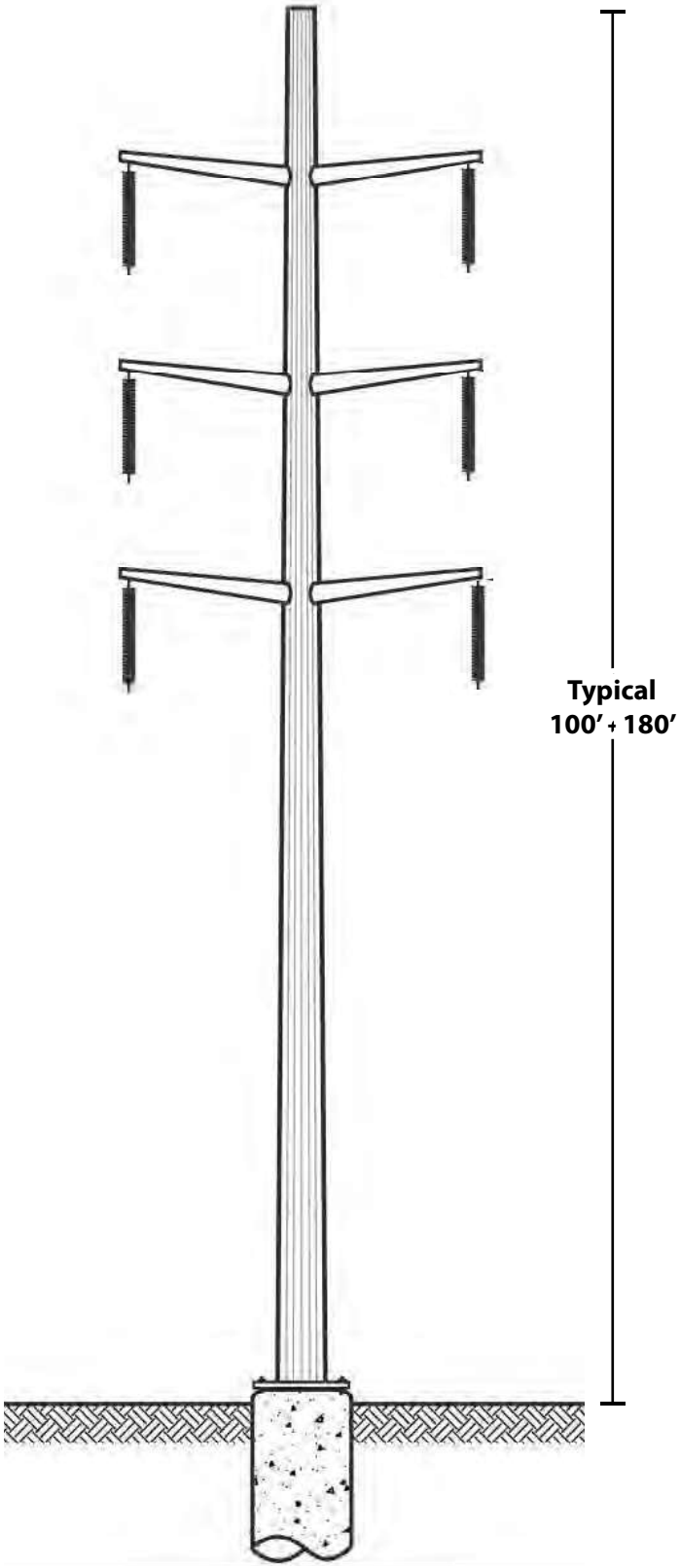
The electrical generation from the Daylight Legacy Solar Facility would be transferred to a new 230-kV gen-tie line extending north from the on-site substation for approximately 2.5 miles within a 175- to 250-foot wide easement to the existing PG&E Mustang Switching Station.

The tower structures of the gen-tie line would consist of self-supporting tubular steel poles (TSPs or monopoles)(see Figure PD-8). The tower-to-tower spans would average about 800 feet, and the monopoles would range in height from 100 to 180 feet depending location and span distances. It is estimated that the gen-tie line would include up to 20 monopoles. The monopoles would consist of two main types of structures. At both ends of the gen-tie line, and at the Avenal Cutoff Road overcrossing, and also at turning points in the gen-tie alignment, heavier and stronger monopoles would be bolted onto steel-reinforced concrete piers which would be cast in place in excavated holes in the ground. The concrete footings would be up to 50 feet deep and up to 8 feet in diameter. The remainder of the monopoles would consist of lighter poles which would not have concrete footings but would instead include a solid steel bottom section which would be imbedded directly into the ground to a depth of up to 35 feet. It is estimated that up to 10 of the monopoles would consist of heavier structures founded on concrete footings, with up to 10 remaining monopoles consisting of lighter-duty structures imbedded directly into the ground.

The monopoles would carry conductors (“wires” or “cables”), insulators, and ground wires for one electrical circuit. The single-circuit line would consist of three phases, each of which is carried on a separate conductor cable. Conductors must meet minimum ground clearances (at the bottom of the conductor sag), typically 27 to 30 feet above the ground.

To protect conductors from the hazard of direct lightning strikes, overhead ground wires (shield wires) or fiber optic ground wire is installed on top of tower structures in order to transfer lightning currents into the ground.





Typical 230-kV Gen-Tie Towers

Figure PD-8

If the alternative southern gen-tie route is selected, the gen-tie line would extend south from a relocated substation for 2.5 miles to Nevada Avenue. The southern 1-mile segment of the gen-tie line would be constructed within a 250-wide corridor that was reserved in the site plan of the approved Cherry Solar Project (CUP No. 22-05). The overall length of the alternative gen-tie line would be the same as the planned gen-tie line (2.5 miles), so the construction details for the alternative gen-tie line would be the same as described above for the planned gen-tie line.

Construction of Gen-Tie Line

The various elements of gen-tie construction are described below. The description applies mainly to the planned gen-tie line, but would also apply to the construction of the alternative gen-tie line.

Construction Overview

It is estimated that the construction of the gen-tie line to the PG&E Mustang Switching Station would be completed in approximately 6 weeks (30 working days). The construction of the gen-tie line would include the following a general sequence of activities: right-of-way acquisition; surveying and pre-construction activities; preparation of the staging area; clearing of tower sites; tower installation; conductor installation; installing substation tie-ins; and site reclamation. Each of these activities is described below.

Right-of-way Acquisition

The northern 2.0 miles gen-tie line would be routed over privately-owned farmland, and thus would require the acquisition of right-of-way (ROW) from the landowners. The ROW would be in the form of easements, which would allow agricultural activities to continue within the right-of-way. The easement width for the gen-tie line would range from 175 to 250 feet.

Surveying and Pre-Construction Activities

For surveying on private lands, the project proponent would negotiate rights-of-entry with the affected landowners. Construction survey work would consist of locating the centerline, tower locations, ROW boundaries, and temporary disturbance areas for pulling and tensioning activities, and temporary tower access roads. Once the centerline and disturbance areas have been surveyed and clearly marked in the field, preconstruction surveys for biological resources would be conducted. Geotechnical investigations would also be conducted to determine soil densities and strength for use in soils engineering and structural design.

Construction Access

Each monopole site would require vehicular access during construction, and also during gen-tie line operation to allow access for inspection and maintenance. The gen-tie alignment has been planned to follow the existing farm roads along the unimproved 26th Avenue alignment, so no new access roads are anticipated to be needed.

Clearing Gen-Tie Right-of-Way

In order to reduce hazards associated with direct contact with trees and vegetation, minimum electrical safety clearances would be required as specified by national electrical safety standards. Within the planned gen-tie ROW, there are no tree crops or other tall vegetation which would need to be cleared or trimmed.

Site clearing would be required at the tower sites including a specified permanent clear area surrounding each tower. The temporary clearance area for construction of the monopoles would typically require a 90 foot by 90 foot area, or 8,100 square feet (0.2 acres) at each pole site. The landowners would be compensated for any loss or damage to crops as part of their easement agreements, and could replant the temporary clearance areas after completion of the gen-tie line.

Construction Staging Area

It is anticipated that one construction yard or staging area would be required for the gen-tie project to provide for storage of materials (e.g., conductor reels, structure hardware, etc.), construction equipment and vehicles, parking areas for crew vehicles, temporary construction offices, and portable sanitation facilities. The sections of the steel towers would be delivered to their pole locations and would not be stored at the staging area. It is anticipated that that staging for the gen-tie construction would utilize a 5-acre portion of the main 30-acre staging area for the Daylight Legacy Solar Project located in the northeastern portion of the solar project site.

Tower Installation

The first step in tower installation would be to prepare a cleared work area at the tower site to accommodate the construction of the tower footings, laydown areas for tower segments, work areas for the assembly of the tower structure, and sufficient area to allow necessary crane maneuvers for tower installation. As mentioned, the cleared work area of up to 0.2 acres would be required for a typical monopole site. The sites would be cleared, graded, and compacted where necessary to accommodate heavy vehicles.

As noted, the monopoles would consist of two main types of structures. At turns in the gen-tie line and at road crossings, heavier and stronger monopoles would be bolted onto steel-reinforced concrete piers which would be cast in place in excavated holes in the ground. The concrete footings would be up to 50 feet deep and up to 8 feet in diameter. The remainder of the monopoles would consist of lighter poles which would not have concrete footings but would instead include a solid steel bottom section which would be imbedded directly into the ground to a depth of up to 35 feet. Approximately half of the monopoles would consist of heavier structures founded on concrete footings, with the remaining monopoles consisting of lighter-duty structures imbedded directly into the ground.

For the larger monopoles, the holes for tower foundations would be bored or augured, and concrete poured in place over the pre-assembled reinforcing steel cages set into the holes. Depending on load requirements and soil characteristics, an average of 65 cubic yards (cy) of concrete is estimated to be required at each tower site to install footings or piers (based on a diameter of 8 feet and an assumed average footing depth of 35 feet including 2 feet above ground). Once the concrete has cured, the towers would be bolted to the piers. Sections of pole would be hauled to each tower site and lifted into place with a crane and bolted together.

As mentioned, the lighter-duty monopoles would be imbedded directly into bored holes to a depth of up to 35 feet. The buried portions of these structures would consist of thicker steel to provide ballast and would be pre-treated to resist corrosion. These monopole foundations would require no concrete. The soils excavated from all of the foundation holes would be distributed over the adjacent lands and would not be exported from the tower sites.

The monopoles would range in height from 100 feet to up to 180 feet. In accordance with Federal Aviation Administration (FAA) Part 77, warning light requirements only apply to structures taller than 200 feet, unless in close proximity to an airport. Since the nearest airport is the Hanford Municipal Airport located approximately 18 miles northeast of the project site, FAA warning lights would not be required.

Upon completion of construction activity, a permanent setback area would be kept clear around each tower structure for maintenance access and fire safety purposes. It is expected that the typical finished tower pad, including a permanent clearance area, would measure approximately 30 feet by 30 feet and occupy and area of up to 900 square feet (0.02 acres). The remainder of the temporary construction clear zone would be replanted with row or tree crops at the landowners' discretion.

Conductor Installation

After the towers are completed, the conductors and ground wires would be installed. This would begin by stringing pilot lines from tower to tower. The pilot lines would guide the pulling of conductors and ground wires, which would be kept under tension to prevent contact with the ground and obstacles. The stringing of pilot lines would be performed by helicopter for all monopoles, and boom lifts or aerial man lifts would be used to complete the connections of the conductors to the monopoles.

Conductors and ground wires would be strung and tensioned using powered pulling equipment at one end and powered braking or tensioning equipment at the other end of a conductor segment. Pulling and tensioning sites would be spaced about one mile apart and would temporarily occupy areas of 3 to 5 acres. These stringing equipment sites would mainly be located within the gen-tie easements. In locations where the gen-tie alignment changes course, the pulling and tensioning sites could extend beyond the gen-tie corridor at these angles or corners, but would not extend more than 800 feet from the permanent easement. As with the monopoles, the precise locations and dimensions of the pulling and tensioning sites would be determined at the engineering design stage.

Helicopter services for stringing of the pilot lines would be obtained on a short-term contract basis from an aviation firm in the region. It is expected that the helicopter would depart and return to its home base and that a temporary landing zone to serve the gen-tie project would not be required.

There is one location along the gen-tie alignment where the conductors would cross over the Avenal Cutoff Road. The gen-tie would also cross an existing electrical distribution line running along the northwest side of Avenal Cutoff Road. To protect these underlying features during conductor stringing, guard structures are typically installed to intercept any falling cables and prevent them from dropping below a specified height. Typical guard structures consist of standard wood poles, 60 to 80 feet high, connected by a similar wood cross member to form an "H-frame." Typically, guard structures would be placed on either side of the protected feature, with protective netting strung from the cross members on one guard structure to the cross members on the opposite structure. Guard structures would be designed and installed in accordance with applicable safety requirements. At each crossing location, the guard structure would be removed once the overhead conductors have been secured to towers. Just

south of the Mustang Switching Station, the gen-tie line would pass under the existing 230-kV Henrietta-Gates Transmission Line which passes through the area in a west-southwesterly direction. Encroachment permits would be obtained from Kings County for the public road crossing, and encroachment permits for the power line crossing would be obtained from the PG&E. The encroachment permits would include conditions regarding safety measures and traffic control.

Modifications to the PG&E Mustang Switching Station

Improvements to the existing PG&E Mustang Switching Station would be required to accommodate the electrical generation from the Daylight Legacy Solar Facility. The modifications would include addition of new bays, circuit breakers, capacitor banks, shunt capacitors, disconnect switches, protective relaying, metering and control equipment, telemetering equipment, an electric grounding system, and underground conduits or trench systems, and other electrical equipment. It is expected that these project-related improvements would be accommodated within the existing fence line of the switching station. The modified substation would be unstaffed, with automated features and remote-control capabilities. The details of the interconnection at the switching station would be determined by PG&E during the engineering design phase.

In order to provide connection between the project gen-tie line and the Mustang Switching Station, it is anticipated that PG&E would install four (4) double-circuit poles and five (5) spans of conductor between the Mustang Switching Station and the last structure of the project gen-tie line.

Site Management during Gen-Tie Construction

Dust Control

During construction, water trucks would be used for regular application of water to minimize dust generation. Assuming a water application rate of 0.15 acre-feet per acre, the total area of 21 acres subject to temporary ground disturbance (per Table PD-2 on the next page) would require approximately 3.15 acre feet for dust control (equivalent to the irrigation requirement for about one acre of crops). Gen-tie construction would include compliance with the fugitive dust measures specified in a Dust Control Plan approved by the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Drainage and Erosion Control

Measures to prevent erosion during construction would be specified in the Storm Water Pollution Prevention Plan (SWPPP) required for the gen-tie project by the State Water Resources Control Board. The SWPPP would specify Best Management Practices (BMPs) for erosion control and hazardous material containment to be implemented during construction. Drainage control features would be installed, as appropriate, to minimize stormwater runoff from construction areas.

Construction Waste

During construction, the waste generated would primarily consist of non-hazardous waste materials such as waste lumber, scrap metal, greenwaste, and common trash. These waste materials would be collected and taken to the main construction staging yard where they would be segregated for recycling or disposal at the appropriate facilities.

Some quantities of hazardous wastes would be generated during construction. These waste materials would include fuels, lubricants, and cleaning solvents, etc. Hazardous wastes generated during construction would be either recycled or disposed of at a Class I disposal facility, as required.

Land Disturbance and Restoration

The construction of the gen-tie line would result in temporary and permanent land disturbance at tower locations and in temporary land disturbance at work sites and staging areas. Table PD-2 contains estimates of land areas that would be permanently and temporarily disturbed. These estimates include the entire 2.5-mile gen-tie line, although an approximately 0.5-mile segment would be located within the solar project site itself.

Upon completion of each segment of gen-tie line, the areas disturbed during construction would be restored as appropriate. The disturbed areas would include: construction staging area; laydown/assembly areas at tower locations; areas disturbed for pulling and tensioning; and guard structure sites. Reclamation would involve the regrading and restoring soil density of the disturbed areas with the objective of returning them to pre-construction conditions.

TABLE PD-2

GEN-TIE LINE – LAND DISTURBANCE ESTIMATES[1]

Gen-Tie Project Feature	Quantity	Land Disturbance (Acres)		
		Total Disturbance Area	Temporarily Disturbed/ To be Restored	Permanently Disturbed
Tower Sites	20	4[2]	3.6	0.4[3]
Pulling/Tensioning Sites	3	12[4]	12	0
Staging/Material Storage Sites	1	5	5	0
Totals	--	21 acres	20.6 acres	0.4 acres

Footnotes:
[1] Total gen-tie corridor length is 2.5 miles of which 0.5 mile is located within the Daylight Legacy Solar Project site. For the alternative southern gen-tie corridor, the total length would also be 2.5 miles of which 1.5 miles would be located within the Daylight Legacy Solar Project site. All quantities shown in Table PD-2 would also apply to the alternative gen-tie line.
[2] Temporary disturbance area at each monopole site = up to 0.2 acres (8,100 sf), i.e., temporary clear areas = up to 90 X 90 feet.
[3] Permanent disturbance area at each monopole site = 0.02 acres (900 sf), i.e., permanent clear areas = 30 X 30 feet.
[4] Pulling/Tensioning sites estimated to disturb an average of 4 acres each.

Cultivation of row crops is anticipated to continue within the gen-tie easements located outside the solar project site. There are no tree crops in the vicinity of the gen-tie corridor. The permanent removal of row crops would be limited to small areas around the monopole sites.

Construction Workforce and Equipment

Workforce

The gen-tie line is expected to be constructed over 30 work days and have an average workforce of approximately 20 construction workers on any given day, with a peak of 30 workers on the busiest days. It is expected that most of the construction personnel would be drawn from the communities in the

region, although some specialized workers may need to be brought in from outside the area and be temporarily lodged in local hotels.

During the 30-day construction period, the work activities would be distributed along the gen-tie line, with various crews engaged in surveying, ROW clearing, pole foundation installation, tower assembly and erection, conductor installation, and reclamation. Although some ridesharing would likely occur, it is assumed that all construction workers would be solo commuters. Assuming that all 30 workers would commute solo, the peak traffic generated by construction personnel would be 30 AM trips and 30 PM trips.

Typically, construction would take place in 8-hour shifts during the hours of 7 AM to 3 PM, Monday through Friday, although work could take place outside these hours if needed. For example, crossings over public roadways may be scheduled during nighttime hours to minimize traffic disruption. For any work taking place after dark, night lighting would be required for safe working conditions, but the lights would be directed toward the work areas.

Construction Deliveries

Equipment and Materials

The construction of the gen-tie line is expected to use approximately 40 pieces of construction equipment and support vehicles at various stages of construction. This would include equipment such as graders, back-hoes, bobcats, auger trucks, concrete mixer and pump trucks, cranes, aerial lifts, fork lifts, puller trucks, tensioner trucks, winch trucks, bucket trucks, water trucks, fuel trucks, skip loaders, tractor trailer trucks, pick-up trucks/crew cabs, compressors, and generators. Equipment deliveries would include approximately 15 flatbed deliveries of small equipment, plus 20 deliveries of large mobile equipment, and 14 pickup trucks and crew cabs. In total, there would be about 35 deliveries of construction equipment, not including the pickup trucks.

Deliveries of power poles, hardware, conductor spools, concrete, and equipment would occur throughout the construction period. The equipment and material deliveries would originate from various locations in central California and would utilize regional highways and local roads to reach the gen-tie corridor.

Concrete and Monopole Deliveries

Concrete would be delivered to pole sites by concrete mixer trucks for pouring of the tower footings. It is expected that concrete would be supplied by Viking Ready Mix in Hanford. It is estimated that an average of 25 cubic yards (cy) of concrete would be required at each of the 10 poles with concrete foundations, for a total of approximately 250 cy of concrete. Given a concrete mixer truck capacity of 10 cy, a total of 25 concrete deliveries would occur. This would result in an average of 0.8 concrete deliveries per day over the 30-day construction period

Deliveries of monopole sections, conductors, insulators and other materials for tower installation would involve a total of approximately 80 deliveries, based on 4 deliveries for each of the 20 towers, for an average of 2.7 deliveries per workday over the 30-day construction period.

In total, the gen-tie construction would involve approximately 140 deliveries of equipment and materials, or an average of 4.7 deliveries per day over the 30-day construction period.

Operation and Maintenance of Gen-Tie Line

After completion, the gen-tie line would be inspected, maintained, and repaired in accordance with the applicable regulatory requirements. Gen-tie components would be inspected at least once per year for corrosion, equipment misalignment, loose fittings, and mechanical problems. Vegetation, landscaping, and agricultural crops in the vicinity of the towers and conductors would be maintained at clearance distances as required by applicable regulations and safety standards.

Decommissioning of Gen-Tie Line

Upon the decommissioning of the Daylight Legacy Solar Facility, as described above, the gen-tie line would be decommissioned unless it is needed for another purpose as determined by the gen-tie owner and approved by the governing agency. Decommissioning would involve the dismantling and removal of conductors, insulators, and hardware from the right-of-way. Tower structures would be removed and foundations removed down to at least 5 feet below the ground surface. All decommissioning activities would occur within the same disturbance areas identified for construction. Equipment required to safely remove the wires and structures would be about the same as that required for installation. Dismantled materials would be salvaged for reuse, or recycled, or hauled to an approved landfill site for disposal. The disturbed land would then be reclaimed and restored to pre-project conditions.

2.3. SURROUNDING LAND USES AND SETTING

The lands surrounding the Daylight Legacy Solar Project site on the north, west, and south consist agricultural lands planted mainly in row crops and with some tree crops, along with related irrigation canals, ditches, wells, pump stations, power lines, and farm roads (see Figure PD-2 – Project Vicinity). The existing structures nearby include: the Shannon Ranch complex (including 20 dwellings) across Avenal Cutoff Road to the northwest, and the Stone Land Company Ranch located on Nevada Avenue approximately 2.1 miles southwest. To the east and northeast of the project site, the predominant land uses consist of utility-scale solar projects, including the 250-MW Aquamarine Solar Project adjacent to the northeast; the 250-MW Solar Blue Project adjacent to the east; the 150-MW Chestnut/Castanea Solar Project located 1.1 miles to the southeast; all of which are served by the 230-kV gen-tie line running along Nevada Avenue approximately 1.0 mile south.

The nearest population centers include the community of Stratford located 5 miles east, the City of Huron located 8 miles west, the City of Lemoore located 8 miles northeast, and the Santa Rosa Rancheria located 9 miles east, the community of Kettleman City located 10 miles south, and Naval Air Station Lemoore (NASL), and its associated base housing, is located 4 miles northeast of the project site.

2.4. RELATED PROJECTS

Approved and Pending Solar Projects

There are a number of solar photovoltaic generation projects in Kings County which have been approved by the County or are pending approval. As of December 2023, a total of 34 solar PV projects (including Daylight Legacy Solar) have approved or pending Conditional Use Permit applications in unincorporated areas of Kings County, representing a total generating capacity of 2,636 MW. To date, a total of 31 solar

PV projects have been approved by Kings County, for a total generating capacity of 2,333 MW. Of these, 27 solar projects have been completed for a total of 1,820 MW. The 5 remaining approved (but not yet constructed) solar projects have a total potential generating capacity of 513 MW. An additional two solar PV projects, with a potential generating capacity of 303 MW, have pending CUP applications with Kings County, including the subject 300 MW Daylight Legacy Solar Project, and the 3 MW Kings CSG 3 Solar Project. The nearest completed projects to the Daylight Legacy Solar Project site include: the 250 MW Aquamarine Solar Project adjacent on the northeast; the 250 MW Solar Blue Project adjacent to the east; and the 150 MW Chestnut/Castanea Solar Project 1 mile to the southeast. These related projects are considered in detail 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.

Westlands Solar Park Master Plan

The Daylight Legacy Solar Project site lies within the area covered by the Westlands Solar Park (WSP) Master Plan which encompasses approximately 20,938 acres. The WSP Master Plan and Gen-Tie Corridors Plan PEIR provides programmatic environmental review for the large-scale solar development planned within the WSP plan area and the gen-tie corridors planned to provide interconnection of the WSP solar development with the State electrical grid. The Program EIR for WSP and associated gen-tie corridors was certified by the Westlands Water District Board of Directors on January 16, 2018. To date, Kings County has approved five individual solar projects within the WSP, with a total generating capacity of 922 MW, which is accounted for above.

2.5. OTHER PERMITS AND APPROVALS THAT MAY BE REQUIRED

In additional to approval of the Conditional Use Permit (CUP) (including CEQA clearance) for the Daylight Legacy Solar Project and gen-tie line, the following permits and approvals may be required from Kings County and other permitting agencies:

County of Kings

- Tentative Parcel Maps (or Lot Line Adjustments) to create parcels corresponding to the project boundaries
- Encroachment Permits for work in County road rights-of-way, and for utility crossings at County roads.
- 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

- California Public Utilities Commission (CPUC): Upgrades to the PG&E Mustang Switching Station and related PG&E-owned interconnection improvements for the Daylight Legacy Solar Project would be under the exclusive jurisdiction of the CPUC under CPUC General Order No. 131-D. The CUPC may rely on this IS/MND to fulfill its CEQA review obligations for the switching station upgrades and interconnection improvements.

- 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.

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	X	Agriculture and Forestry Resources
X	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:

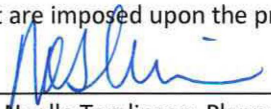
____ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

__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: 1/25/2024

Noelle Tomlinson, Planner II
Kings County Community Development Agency

CHAPTER 4 – EVALUATION OF ENVIRONMENTAL IMPACTS

4.1. AESTHETICS

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

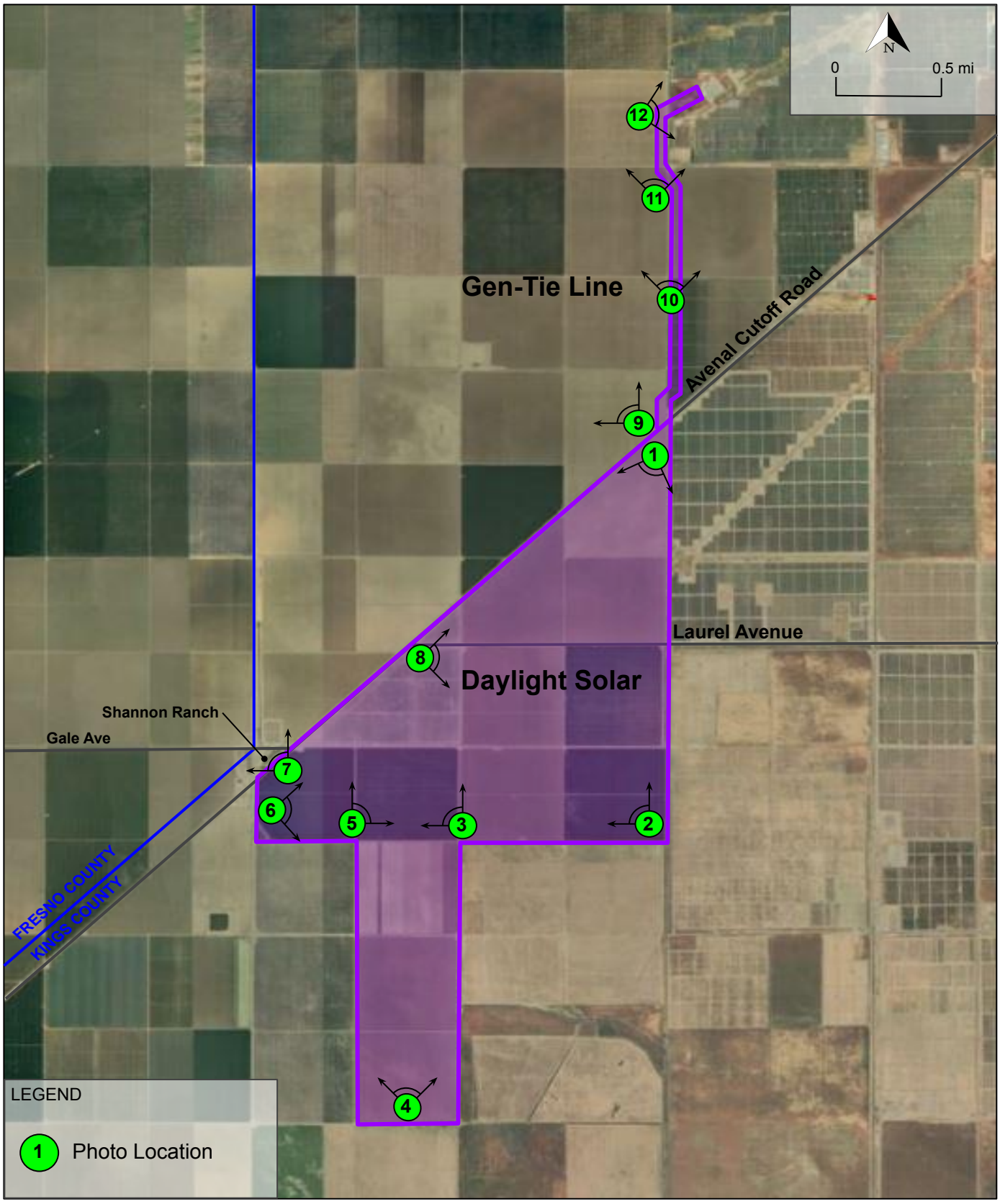
Environmental Setting

The 2,107-acre Daylight Legacy Solar Project site consists of virtually level cropland with typical agricultural infrastructure such as wells, standpipes, pump stations, farm roads, and electrical pole lines (see Figures AES-1 through 5 – Site Photos). Several former agricultural irrigation canals and ditches run alongside and within the project site, but these are no longer used and are also dry. There are no trees, shrubs or other woody vegetation on the project site.

The existing structures nearby include: the Shannon Ranch complex (including 20 dwellings) across Avenal Cutoff Road to the northwest, and; the Stone Land Company Ranch located on Nevada Avenue approximately 2.1 miles southwest. The western portions of the project site are visible from several residences in the Shannon Ranch complex, but the project site is not visible from the two dwellings on the Stone Land Company Ranch. The Daylight Legacy Solar Project site is not visible from other residences in the area.

Nearby public roadways include Avenal Cutoff Road, which runs along the project's northwest frontage for 2.8 miles, and Laurel Avenue, of which a 1.25-mile segment passes through the northern portion of the project site. Motorists traveling along these segments of Avenal Cutoff Road and Laurel Avenue would have direct visual access to the project site. The Daylight Legacy Solar Project site is not visible to motorists on other public roadways in the area.

Existing land uses to the east and northeast of the project site mainly consist of utility-scale solar projects, including the 250-MW Aquamarine Solar Project adjacent to the northeast; the 250 MW Solar Blue Project adjacent to the east; the 150 MW Chestnut/Castanea Solar Project located 1.1 miles to the southeast; all of which are served by the 230-kV gen-tie line running along Nevada Avenue approximately 1.0 mile south.



Source: Google Earth, 2023

Site Photos - Key Map
Figure AES-1

Photo 1:

Photo 2:

Photo 3:

All photos taken on July 7th, 2023.

Site Photos
Figure AES-2

Photo 4:

Photo 5:

Photo 6:

Site Photos
Figure AES-3

Photo 7:

Photo 8:

Photo 9:

Site Photos
Figure AES-4

Photo 10:

Photo 11:

Photo 12:

Site Photos
Figure AES-5

Other existing solar facilities in the area include: Westside Solar (0.4 miles northeast); Mustang 2 (1.0 mile northeast); Slate Solar (2.0 miles northeast); the Kent South, Orion, Mustang Solar (0.8 to 3.3 miles north); American Kings Solar (1.8 miles northeast), and Kettleman Solar (6.0 miles south). In addition, the approved Grape Solar and Cherry Solar projects (located 1.0 mile southeast and east, respectively) are scheduled to begin construction in 2024. Thus when the Daylight Legacy Solar Project is scheduled to begin construction in 2025, all the lands with a 3-mile radius to the north and east will be occupied by operating solar facilities, covering a total of 15,806 acres.

The nearest population centers include the community of Stratford located 5 miles east, the City of Huron located 8 miles west, the City of Lemoore located 8 miles northeast, and the Santa Rosa Rancheria located 9 miles east, the community of Kettleman City located 10 miles south, and Naval Air Station Lemoore (NASL), and its associated base housing, is located 4 miles northeast of the project site. The Daylight Legacy Solar Project site is not visible from these nearest communities.

Other visually prominent features in the project vicinity include Highway 41 and the adjacent Blakeley Canal, located 2.5 miles east, and the Kings River which approximately 3.7 miles east of the project site. The San Luis Canal/California Aqueduct runs north to south approximately 5 miles west, and Interstate 5 runs northwest-southeast approximately 10 miles southwest of the project site. None of these features are visible from the Daylight Legacy Solar Project site.

In the distance to the southwest, the foothills and mountains of the Coast Ranges are visible from the project site. The Kettleman Hills rise to an elevation of about 1,300 feet at a distance of approximately 10 miles from the project site. Beyond these foothills, first ridge of the Coast Ranges reaches elevations of approximately 5,000 feet at a distance of about 40 miles northwest. At these distances, the foothills and mountains make up a very small portion of the overall field of view from the project site.

In summary, the Daylight Legacy Solar Project site is not visually connected to recognized scenic resources such as the foothills in the distance to the west. The project site itself is flat and featureless and generally has a moderately low level of visual quality. Given that there are very few residential properties with visual access to the project site, and the few public roads that traverse or pass within sight of the project site are lightly traveled, the visual sensitivity of the project site is low. The combination of moderately low visual quality and low visual sensitivity indicates that the project site generally has moderately low aesthetic quality.

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 19 miles southwest of the Daylight Legacy Solar Project site at its nearest point. None of the roadways in the project vicinity are designated or proposed scenic routes (Caltrans 2023). There are no County or City-designated or proposed scenic highways or routes in the project vicinity.

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 include the Kings River to the east and the foothills and mountains in the western portion of County. As noted, the project site is approximately 3.7 miles west of the Kings River at its nearest point. At this distance, the project site is not integral to, nor does it 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 Daylight Legacy Solar Project:

Open Space Element

B. Scenic Resources

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

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

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

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

_____

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

OS Policy B1.3.1 Require new development to be designed so that it does not significantly impact or block 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.

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

Resource Conservation Element

G. Energy Resources

RC Policy G1.2.5 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.

Land Use Element

D. Community Districts

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

Environmental Evaluation

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

Less-than-Significant Impact. The Daylight Legacy 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 nearest locally significant scenic resource is the Kings River, of which the nearest natural channel and adjacent riparian corridor is located approximately 3.7 miles from the Daylight Legacy Solar Project site, and not within view of the project site. The only potential scenic vistas in the region are of the Kettleman Hills and Coast Ranges to the west and southwest. The low profile of the nearest foothills can be discerned on the distant horizon at least 10 miles from the Daylight Legacy Solar Project site, and this comprises a very small portion of the overall southwesterly view from the project vicinity. The Daylight Legacy Solar Project's solar arrays will not exceed 10 feet in height, and the gen-tie monopoles would be spaced at approximately 800-foot intervals, and thus neither would not block publicly accessible views of the western hills from SR-41, which is at least 2.5 miles east of the project site. From Laurel Avenue, drivers' views of the low ridgeline in the distance to the west would be partially obscured by the project solar modules during the brief periods when they are at maximum tilt in the very early morning and at sunset, and this would occur only along the 1.25 miles of project frontage along Laurel Avenue. Laurel Avenue is very lightly traveled so few drivers would notice this minor and temporary visual effect. Therefore, the impacts of the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project site (the nearest proposed scenic highway segment is 19 miles southwest of the project site), nor are there any recognized scenic resources or vistas in the immediate area (Caltrans 2023, 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line, and there would be *no impact* to 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 Daylight Legacy Solar Project would involve installation of solar arrays throughout the 2,107-acre project site. The solar arrays would be relatively low in profile, reaching a height of up to 10 feet at maximum tilt. The inverters and transformers that would be dispersed throughout the site would also have a maximum height of about 8 feet, and the meteorological station would reach a height of up to 13 feet. The O&M building, substation, and battery storage facilities would be located together within an approximately 30-acre area located in the east central area of the site. The O&M building would be 14 feet tall at the roofline, and the battery storage containers would be 8.5 feet in height. The tallest structural elements at the on-site substation would include dead-end structures up to 75 feet high, and a potential communications tower could reach up to 125 feet in height. The solar facilities would be surrounded by perimeter fencing with an overall height of about 7 feet. The gen-tie line would include approximately 20 monopoles, ranging in height from 100 to 180 feet, which would be spaced at approximately 800-foot intervals.

The Daylight Legacy Solar Project would replace the agricultural fields of the site with the relatively low profile structural elements of a solar generating facility. The rows of solar modules would be similar in scale to rows of tall corn or permanent tree crops. The hard edges of the solar equipment would contrast with the softer edges of the planted crops to the west and north, but would be visually similar to the existing solar facilities to the northeast and east, and thus 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", these structural elements consist of 10 completed solar facilities, and 2 approved solar facilities about to commence construction, within a 3-mile radius to the northeast and east of the Daylight Legacy Solar Project site, covering a total area of 18,600 acres. The 20 monopoles of the gen-tie line would be narrow in profile and spaced widely apart. Given the presence of existing gen-

tie and transmission lines, and substations in the immediate vicinity, the gen-tie line would not introduce new electrical structural elements to the setting. Thus, although the project site is largely rural and agricultural in character, there are several existing large-scale solar facilities with supporting electrical infrastructure in the immediate vicinity. Under current conditions, the project area has a mixed agricultural/utility solar character, and thus the project would not result in a substantial change to the local visual setting.

As discussed under 'Environmental Setting' above, the visual quality of the project site and its surroundings is moderately 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 nearby dwellings are at the Shannon Ranch complex located on the northwest side of Avenal Cutoff Road opposite the project site. However, the heavy landscaping along the Shannon Ranch roadway frontage would screen the project from view for all but about 6 dwellings, which would be situated from 300 to 650 feet from the nearest project structures. The only public roads that pass alongside the project site are Avenal Cutoff Road and Laurel Avenue. Motorists traveling along both roadways would have near-ground views of solar arrays, and may also have a glimpse of the project O&M facilities, substation, and battery storage facilities located at least 0.5 mile from both roadways. Laurel 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. Motorists along Avenal Cutoff Road would view solar arrays along the southeast side of the roadway for a distance of about 2.75 miles, in addition to the 4.5 miles of existing solar arrays along one or both sides of the roadway to the northeast between the project site and Jackson Avenue. The project would not be visible from other public roads in the vicinity such as SR-41 and Nevada Avenue.

In summary, the Daylight Legacy Solar Project would result in a visual change of the project site from agricultural fields to solar fields. While this would represent a visual change to the project site, it would not result in a substantial visual change to the surrounding area which already includes several large solar facilities, and will be joined by two additional approved solar facilities which are anticipated to be completed adjacent to the Daylight Legacy Solar Project site before project construction begins. Given the moderately low visual quality of the site and its surroundings, and the relatively low number of visual receivers who would experience the change in visual setting, the introduction of a non-agricultural land use as represented by the Daylight Legacy Solar Project, within a visual setting that includes considerable existing and approved structural elements, 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 Daylight Legacy 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 night lighting mainly from headlights of vehicles traveling along Avenal Cutoff Road and occasionally

traveling on Laurel Avenue. The Daylight Legacy Solar Project will introduce new sources of light to the area, although permanent exterior lighting will be mainly located at the site entrances, the operations yard, and the on-site substation. Lighting within the solar fields will be confined to the inverter/transformer 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. The gen-tie line would not include any light sources.

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

Potentially sensitive receptors to unwanted illumination from the project primarily include existing ranch dwellings at the Shannon Ranch located opposite Avenal Cutoff Road from the west end of the project site. However, there would be no sources of permanent night lighting within the nearby portions of the solar facility, since such lighting would be confined to project entrances and the main activity center at the east site boundary where the O&M facilities, substation, and battery storage system would be located. As such the dwellings on the Shannon Ranch would be subject to little or no additional nighttime illumination from the solar facility.

The motorists who would travel along Avenal Cutoff Road and Laurel Avenue at night and pass by the solar facility would notice the additional light sources associated with the project, which would be largely confined to the substation and O&M facility located at least 0.5 mile from both roadways. The volume of nighttime traffic on these roadways is very low and the effect would not be significant. Since all lighting within the Daylight Legacy Solar Project would be directed away from the roadways, the project lighting would not create direct illumination that could pose a safety hazard to passing traffic on Avenal Cutoff Road or Laurel Avenue.

In summary, the Daylight Legacy Solar Project would introduce new sources of permanent and temporary nighttime lighting to the project area, although most of the solar facility would not be illuminated. The lighting introduced by the project would have minimal impact on existing residences which would be well removed from sources of permanent night lighting at the solar facility. The small number of motorists on Avenal Cutoff Road and Laurel Avenue who would pass by the project site at night would notice an increase in permanent night lighting, but the overall effect would not be significant. Therefore, the lighting impacts resulting from the Daylight Legacy 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 modules installed at the Daylight Legacy 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). (The potential for the project to create a source of glint or glare that would affect military pilots stationed at NAS Lemoore is also considered less than significant, and this is discussed in further detail in Section *4.9. Hazards and Hazardous Materials*.)

Further, PV solar systems with horizontal trackers, as proposed, 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. The potential for ground-level reflection is greatest 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 substantially reduced in tracking systems, such as those planned for the Daylight Legacy Solar Project, 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 and thus tends 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. The panels would therefore not be expected to 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-level reflectance from solar panels. Thus there may be a potential for dwellings at the nearby Shannon Ranch to be subject to low levels of reflected sunlight at the end of the day in certain times of year. However, the potentially affected dwellings would be shielded from such muted glare by the tall intervening landscaping along the Avenal Cutoff Road frontage of the ranch which would almost completely screen any low level reflectance from solar arrays located across the highway to the east. Therefore, any potential glare effects upon residential receivers from the solar facility would be minor in effect and short-lived.

Automobiles passing by the project solar facilities could be subject to low-level reflectance from nearby solar panels at certain times of day. As discussed above, the potential for reflected sunlight would be greatest at sunrise and sunset when oblique reflections could be received at or near ground level, although ground-level reflection is expected to occur primarily with fixed-tilt mounting systems,

and much less so with the tracker systems planned for the project. In summary, due to the muted intensity of reflection from the PV solar panels and the short duration of driver exposure, if any, to any low-intensity reflected light, the relatively low volume of traffic passing directly by the Daylight Legacy Solar Facility on Avenal Cutoff Road and Laurel 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*. (See Section *4.9. Hazards and Hazardous Materials* for discussion of potential glare hazard to aviation.)

REFERENCES – AESTHETICS

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

Agricultural Setting

The 2,107-acre Daylight Legacy Solar project site consists entirely of agricultural fields and supporting features such as, irrigation canals and piping, wells and filtration systems, unimproved farm roads, and electric power lines. In recent years, the site has been mainly cultivated for tomatoes, cotton and winter wheat.

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 geomorphologic processes resulted in the formation of two distinct landform types in the western San Joaquin Valley, including: 1) the upper and middle alluvial fans and fan terrace areas in the higher westerly elevations; and 2) the lower alluvial fans or fan skirts, interfan areas, and basin floors located in the lower lying eastern areas. The project site is located on the lower alluvial fan area which is underlain by clay layers at depths of 10 to 40 feet that impede the downward movement

of water. The site area is also characterized by fine-textured clayey soils with low permeability and slow groundwater movement. The upper clay layers combined with the slow draining soils result in a high or "perched" groundwater table that is typically within 5 to 15 feet of the ground surface throughout the project site (WWD 2017a, 2017b).

The sedimentary formations of the Coast Ranges retained high concentrations of salts resulting from evaporative processes over millions of years. Since these salts are soluble, they were dissolved by rainfall and mobilized in drainage courses that carried the salts downstream to be deposited with the formation of the alluvial fans. These salts include associated trace elements such as selenium (Se), a semi-metallic element which is essential to human health in very small amounts but hazardous to health in concentrations that exceed 30 parts per billion (ppb)(OEHHA 2010).

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 Daylight Legacy Solar Project site includes three different soil types. These soils are listed in Table AG-1 along with their NRCS land capability classification, Storie 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.

TABLE AG-1

AGRICULTURAL CAPABILITY OF SOILS ON DAYLIGHT LEGACY SOLAR PROJECT SITE

Soil Unit	NRCS Map Unit Symbol	Acres in Daylight Legacy Site (Approx.)	NRCS Land Capability		Storie Index Rating*	NRCS Soil Limitations
			Irrigated	Non-Irrigated		
Lethent clay loam	139	1,585	IIIs-6	VIIs	41	S = soil limitations within the rooting zone such as salinity. Groundwater – Perched.
Calfax clay loam, saline-sodic	151	506	IIIs-6	VIIs	39	S = soil limitations within the rooting zone such as salinity.
Twisselman silty clay, saline-alkali	166	16	IIIs-6	VIIs	20	S = soil limitations within the rooting zone such as salinity.
Total Acres		2,107				

* Storie Index rating does not consider availability of water supply for irrigation.
Sources: NRCS 1986, CDOC 2020.

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 soils on the Daylight Legacy Solar Project site consist largely of Lethent clay loam (75% of site), with Calflax clay loam, saline-sodic (24%) covering the northeast portion of the site, and a small area of Twisselman silty clay, saline-alkali (<1%) in the southeast corner of the site. All of these soils

have a Land Capability Class rating of VIIs (non-irrigated) and IIIs (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 on-site soils are similar in character and are described as very deep, moderately well-drained, saline-alkali soils. The shrink-swell (expansion) potential of these clayey soils is very high, runoff is very slow, permeability is very slow, and hazard to erosion is slight (NRCS 1986).

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. Soils with a Storie Index rating of 80 or greater are classified as Grade 1 or prime soils. The Storie Index ratings for the soils of the Daylight Legacy Solar Project site have the following numeric ratings and corresponding numeric grades: Lethent clay loam – 41 (Grade 3); Calflax clay loam, saline-sodic – 39 (Grade 4), and; Twisselman silty clay, saline-alkali – 20 (Grade 4) (NRCS 1986).

The saline conditions that are native to the site soils have been exacerbated on the project site by perched groundwater, poor natural subsurface drainage, and the application of insufficient water to leach salt from the root zone. Groundwater in the area is high in salinity, carbonates and bicarbonates, and boron. These groundwater conditions are typically above the maximums recommended for tolerant crops. In addition, the added salts from the pumped groundwater further increase the salinity of the surface soils. Therefore, growing crops on the site utilizing solely groundwater is not feasible.

Soil Impairment Due to Salinity

Under irrigated agriculture, substantial amounts of soluble salts and selenium in the native soils are dissolved and are leached into the groundwater. As discussed, subsurface drainage is restricted due to the presence of clay layers at depth (aquitards) as well as the high clay content of the near-surface soils. With the application of irrigation water, the impedance of downward drainage by the slow draining soils and the underlying clay layers result in rising groundwater levels. The salts and selenium in the near-surface groundwater are transported upward in the soil toward the surface through capillary action, or wicking. When the near-surface water evaporates, the precipitated salts are left behind, resulting in increased salinity in the surface soils (USBR 2006, p. 13-2).

Elevated salt concentration in soil and groundwater tends to inhibit plant growth and reduce yields. Since plants are able to absorb only pure water, the higher the salt concentration, the less water is available to plants, even though the soil may appear wet. This is known as "physiological drought" and has the same effect as an actual drought in terms of starving plants of water needed for growth. There is wide variation in the ability of plants to tolerate saline water, with each plant or crop having different thresholds of salinity tolerance where crop yields begin to diminish rapidly (CSU 2014). Soil salinity is measured by concentration of Total Dissolved Solids (TDS) in milligrams per liter (mg/L)(note: 1 mg/L = 1 part per million [ppm]), or by Electrical Conductivity (EC) measured in deciSeimens per meter (dS/m). Most row crops and most tree crops (nuts and fruits) have salt tolerances of less than 1,280 mg/L (2 dS/m); few crops have salt tolerances greater than 1,280 mg/L; and a few grains and cotton can tolerate salt levels exceeding 2,560 mg/L (4 dS/m)(FAO 2020). Soils are considered "saline" at EC of 4 dS/m (DWR 2020, Fig. 2-24) or at TDS of 2,000 mg/L (USBR 2006, p. 6-3).

Sampling from perched groundwater (i.e., groundwater in the near-surface soils) conducted by USBR in the mid-2000s found that Total Dissolved Solids (TDS - a measure of groundwater salinity) on the Daylight Legacy Solar site ranged from 3,000 to 6,000 mg/L. More recent mapping and soil sampling have shown that salinity levels in the near-surface soils are in the same general range as shown in the 2006 mapping by USBR. Soil samples on the Aquamarine Solar Project site (adjacent to the east of the Daylight Legacy Solar site and composed predominantly of the same Lethent clay loam that covers 75 percent of the Daylight Legacy Solar site), found salt concentrations to range from approximately 4,400 mg/L to over 20,000 mg/L (Kings County 2019b). Due to the very high salt concentrations in the soils of the Daylight Legacy Solar Project site, the predominant crops grown on the project site are winter wheat and cotton (the latter only when irrigation water is abundant), which can tolerate salinity levels of about 4,000 and 5,000 mg/L, respectively, before crop yields begin to decrease significantly (CSU 2014). The recommended secondary maximum contaminant level (SMCL) set by the California Department of Public Health (CDPH) for TDS in drinking water is 500 mg/L, and the upper limit is 1,000 mg/L (SWRCB 2018b). (It is noted that the salt concentrations in surface water delivered from the California Aqueduct in the past year [July 2022-July 2023] ranged from approximately 84 to 740 mg/L [DWR 2023c]. The highest levels were measured in winter 2023, likely attributable to inflow from high rainfall events.)

Irrigation Water Supply Constraints

Historically, irrigation water for the project site has been largely provided by imported surface water from the federal Central Valley Project (CVP) delivered through the Westlands Water District (WWD). The maximum water allocation available to the site from the CVP for agricultural purposes is approximately 2.6 acre-feet per acre per year. During the mid-2010s, the actual deliveries of CVP contract water to WWD were dramatically curtailed due to prolonged drought conditions. Also, since WWD was one of the last water districts in California to obtain access to federal water, it has a junior entitlement to CVP water, which places it at a very low priority for water deliveries during times of scarcity. During the 10 years between 2013 and 2022, WWD received an average of 27 percent of its contract water. In 2014, 2015, 2021 and 2022, WWD received 0 percent allocation of CVP water, and in 2016 received 5 percent of its contract water (WWD 2023). In order to meet the irrigation requirements of planted crops under such drought conditions, growers will augment reduced surface water supplies with pumped groundwater. But since the groundwater is high in salinity, the amount of groundwater that can be blended with the higher quality imported surface water is limited by the generally low salinity tolerance of crops. Due to the unavailability of imported surface water during the critically dry years noted above, combined with the quality and quantity constraints on groundwater pumping, an average of 182,000 acres were fallowed annually within the District between 2013 and 2022, representing 35 percent of the irrigable farmland in the District (WWD 2023).

In January 2020, the WWD Board of Directors adopted the Groundwater Sustainability Plan (GSP) for the 622,215-acre Westside Subbasin (this includes the entire WWD service area of 614,700 acres). The GSP determined that the long-term sustainable yield across the subbasin is 305,000 acre-feet per year (WWD 2022). Under the GSP, there are approximately 525,000 acres within the subbasin that are eligible to receive Groundwater Allocation, which places limits on the volume of groundwater that can be pumped in a given year. The groundwater allocation program includes a "transition period" from 2022 to 2030, in which a uniform annual allocation is initially established at 1.3 acre-feet per acre and then subsequently reduced each year by 0.1 AF per acre until 2030 when the allocation would reach 0.6 AF per acre (WWD 2022). For purposes of this analysis, the available groundwater supply is defined as 0.6 AF per acre per year. (See Section *4.10. Hydrology and Water Quality*, item 'e', for a full discussion of WWD's Groundwater Sustainability Plan.)

Regulatory Context

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-1 shows the most recent edition of the Important Farmland Map published by CDOC for areas of Kings County that include the Daylight Legacy Solar Project site and surrounding areas. As shown, the entire project site is mapped as "Farmland of Statewide Importance (CDOC 2020). As mentioned, "Farmland of Statewide Importance" is one of the three categories that define "Farmland" in CEQA Guidelines Appendix G.

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.

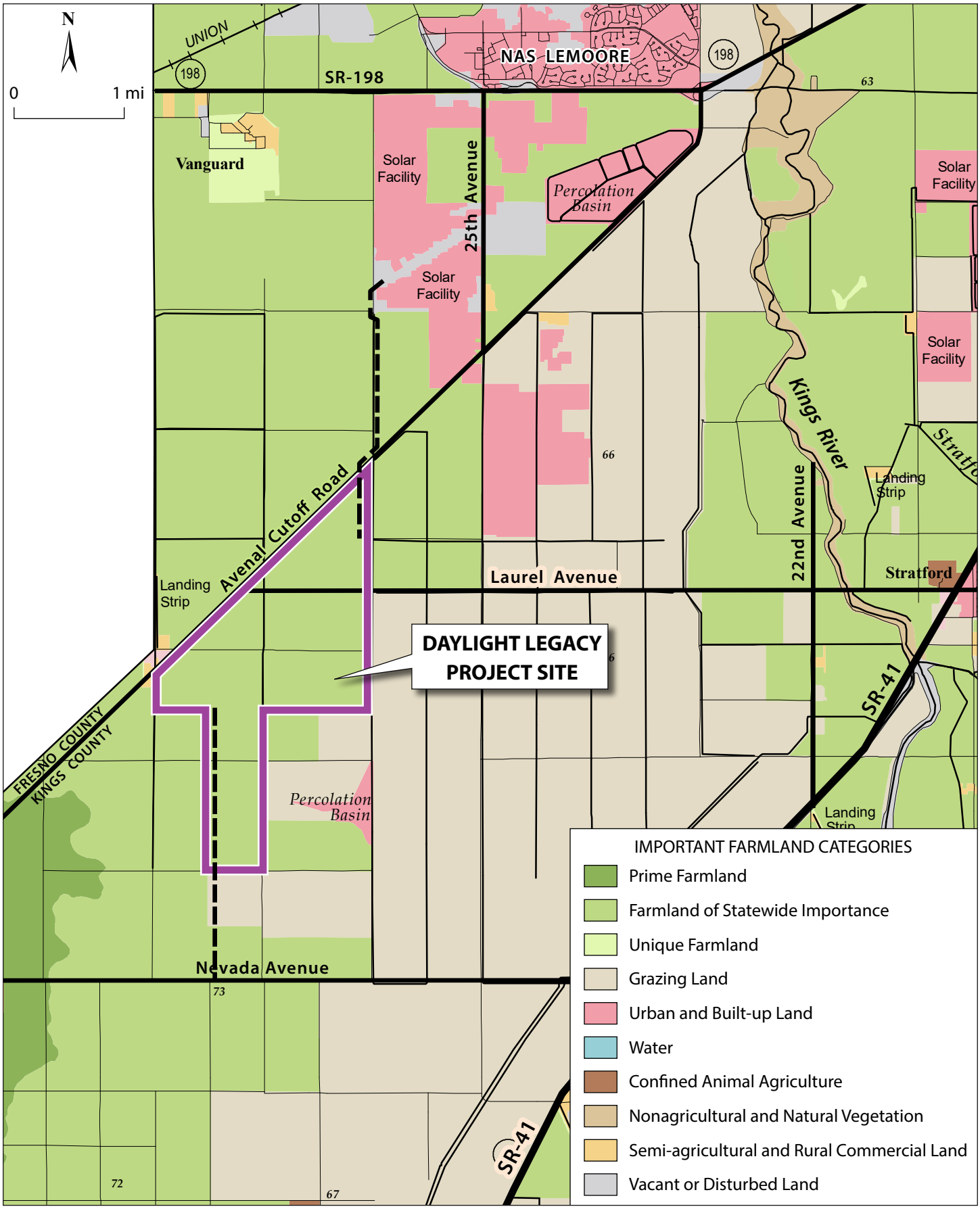
The Williamson Act stipulates that local governments adopt rules governing the administration of agricultural preserves, including rules related to compatible uses, provided the rules are consistent with the following principles of compatibility established in the Williamson Act (Gov. Code § 51231).

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.

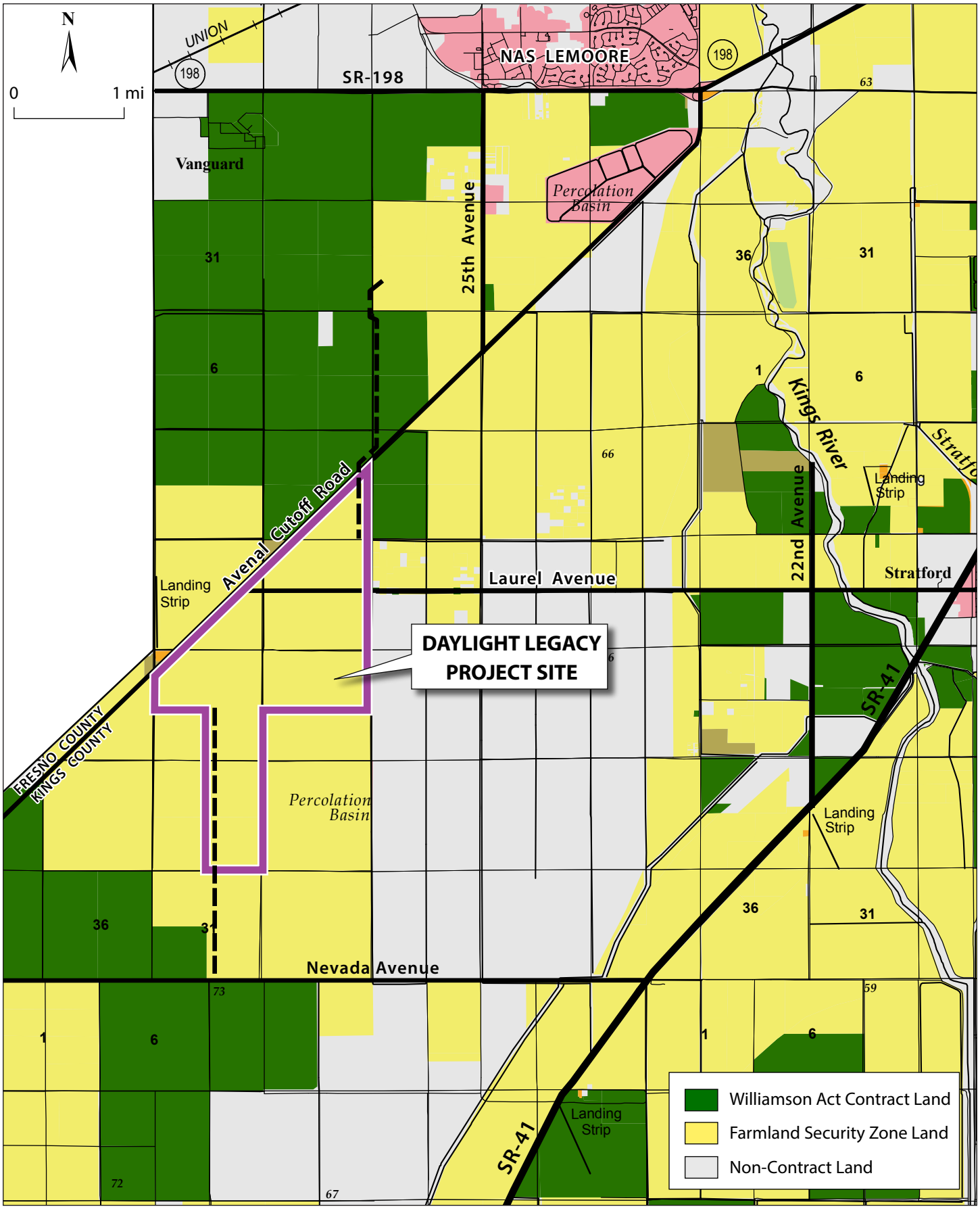
(3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.



Source: CDOC, 2020

Important Farmlands

Figure AG-1



Source: CDOC, 2015

Williamson Act Contract Lands

Figure AG-2

The Kings County Assessor's records indicate that almost the entire 2,107-acre Daylight Legacy Solar Project site is subject to Farmland Security Zone contracts under the Williamson Act. The lone exception is a 2.0-acre parcel (APN 026-300-004) that is under a Land Conservation contract under the Williamson Act (Preserve 301). The contract information on parcels subject to the Williamson Act is listed in the following table.

Daylight Legacy Solar Project – Farmland Security Zone Contracts

Section	APN	Acreage	Contract No.	Preserve/Zone	Document No.	Date Recorded
8	026-010-028	176.9	99	Zone 50	9828306	12/30/1998
17	026-300-004	2.0	739	Preserve 301	Bk 950 Pg 811	3/3/1970
17	026-300-031	268.4	99	Zone 50	9828306	12/30/1998
17	026-300-032	346.3	99	Zone 50	9828306	12/30/1998
20	026-300-033	320.0	100	Zone 50	9828305	12/30/1998
18	026-300-043	200.3	96	Zone 50	9828313	12/30/1998
19	026-300-044	473.0	264	Zone 50	0637233	12/19/06
30	026-320-002	160.0	264	Zone 50	0637233	12/19/06
30	026-320-003	160.0	264	Zone 50	0637233	12/19/06
		2,106.9				

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 the following priority categories on the Daylight Legacy Solar Project site: "Medium Priority" – 201 acres; "Low-Medium Priority" – 1,593 acres; "Low Priority" – 313 acres (Kings County 2010b).

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 entire Daylight Legacy 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 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 Zone Plan, the entire Daylight Legacy 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 2020b).

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. The required standards, and the project's conformity with the standards, are addressed in item 'b)' in the Environmental Evaluation that follows (Kings County 2020b).
The planned gen-tie line is mostly located within the General Agricultural – 40 acre minimum (AG-40) zone district, while the northern gen-tie segment extending north of Kansas Avenue is in the Exclusive Agriculture – 40 acre minimum (AX) zone district. The Kings County Development Code permits electrical substations within agricultural zones without a permit, and transmission lines are subject to review by the zoning administrator (Kings County 2020b).

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).

Kings County Williamson Act Implementation Procedures

As required under the Williamson Act, the County has established procedures for implementation of the Act at the local level. Those implementation procedures include *Uniform Rules for Agricultural Preserves in Kings County*, which identifies the uses that shall be permitted as "Commercial Agricultural Uses," and "Compatible Uses," on lands under Williamson Act contracts, including Farmland Security Zone contracts. Permitted compatible uses include single-family residences, accessory structures, agricultural processing facilities, gas and oil wells, and public utility and public service structures and buildings, among other uses.

The current Kings County Williamson Act implementing procedures include the following uniform rules for agricultural preserves that pertain to solar photovoltaic facilities:

> "Commercial solar photovoltaic system facilities that are designed primarily for the production of electrical energy for third party consumption are not compatible under the provisions of Government Code Section 51238.1(a). For purposes of determining compatibility, a project must be determined consistent with the principles of compatibility under Section 51238.1(a). Ordinarily, a solar project will be found compatible if the applicant provides a soil reclamation plan and financial assurances, and if the economic output of agricultural operations on the contracted parcel or parcels on which the project is located will be 90-percent of pre-project output. However, on November 26, 2013, the Board of Supervisors adopted Resolution No. 13-058, recognizing that due to reduced surface water deliveries, poor groundwater quality and severe groundwater overdrafts, impaired soil conditions, and regulatory burdens, circumstances exist on agricultural preserves

located within that portion of Kings County south of State Route 198, west of State Route 41, and northeast of Interstate 5 that limit the use of much of the land within the territory for agricultural activities, such that it is reasonably foreseeable that certain parcels located there that currently are used for more intensive agricultural activities will be used in the near future for less intensive uses, including dry farm seasonal grazing. Notwithstanding the present agricultural use of the land, solar farming as a concomitant use with dry farm seasonal grazing or similar commercial agricultural activity may be deemed a compatible use within this region of the County if the applicant provides a soil reclamation plan and financial assurances, and if a finding can be made, based upon substantial evidence, and taking into account surface water availability, ground water quality and availability, and soil conditions, that the proposed concomitant commercial agricultural operation is a reasonably foreseeable use of the land (Kings County 2020a)."

As noted previously in this section, the entire 2,107-acre Daylight Legacy Solar Project site is subject to several Farmland Security Zone contracts and one Land Conservation contract under the Williamson Act. Therefore, all of the lands within the Daylight Legacy Solar Project site are subject to the County's Williamson Act Implementation Procedures. The project's conformity with the Implementation Procedures is addressed in item 'b)' in the Environmental Evaluation that follows.

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. Under DOC's Farmland Mapping and Monitoring Program (FMMP), the entire 2,107-acre Daylight Legacy Solar Project site is mapped "Farmlands of Statewide Importance," which is defined as lands which are similar to Prime Farmland but have minor shortcomings, and which have been in irrigated agriculture sometime during the prior four years (CDOC 2020). "Farmlands of Statewide Importance" is one of the farmland categories included in the definition of "Farmland" under CEQA Guidelines Appendix G. The Daylight Legacy Solar Project would occupy the site for a period of about 40 years. During operation of the solar facility, the majority of the site area would be vegetated with grasses and forbs from a County-approved seed mix. At the end of the productive life of the solar generating facility, the facility would be decommissioned.

The planned gen-tie line would pass through Farmlands of Statewide Importance, as would the alternative gen-tie route, if selected. As shown in Table PD-3, the construction of the gen-tie line would result in temporary disturbance to 20 acres of farmland, while the permanent displacement by the 20 monopoles (under either the planned or alternative gen-tie project) would be less than 0.5 acres dispersed over about 20 pole sites. The removal of this very small acreage of farmland would represent a less-than-significant impact to agricultural resources.

The installation of the Daylight Legacy Solar project on the site could potentially result in the conversion of 2,107 acres Farmland of Statewide Importance on the site to non-agricultural uses. Unless mitigated, this would represent a significant impact to Farmland.

In order to reduce the project impacts to agricultural resources of the Daylight Legacy Solar Project site to less-than-significant levels, the following mitigation measures shall be implemented in conjunction with the project.

Mitigation Measure AG-1: Agricultural Management Plan. *Prior to the issuance of a building permit, the applicant shall submit to Kings County an Agricultural Management Plan (AMP) that provides for the ongoing agricultural productivity of the project site for the life of the project. The AMP shall specify that at least 90 percent of this area of the site shall be vegetated with grasses and forbs and shall be managed for dry farm seasonal sheep grazing. The AMP shall include specific provisions for soil preparation and revegetation including specifications for a seed mix which is appropriate to the soil and climatic conditions in the absence of irrigation, methods of avoiding invasive species, and a list of acceptable vegetation that meets the dietary needs of sheep while consisting predominantly of native species. The AMP shall include detailed provisions to ensure the successful establishment of the planned vegetative cover, and shall identify appropriate maintenance activities, including conditions under which herbicides may be used, and particularly the identification and selection of herbicides that are non-toxic to livestock and wildlife. The AMP shall also prescribe the management practices for sheep grazing. The AMP shall include provisions for ongoing monitoring and annual reporting of agricultural activity on the site to the Kings County Community Development Agency. The AMP shall also comply with the requirements of the Kings County Development Code related to weed abatement and pest control.*

Mitigation Measure AG-2: Soil Reclamation Plan. *Prior to the issuance of a building permit, the applicant shall submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the site at the end of the project's useful life. The Plan shall contain an analysis of general pre-construction conditions of the project site, and the site shall be photographically documented by the applicant prior to the start of construction. The Plan shall contain specific measures to restore the soil to approximate its pre-project condition, 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, consisting predominantly of native species, and 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 shall be recycled or disposed of in compliance with applicable law. The applicant shall verify the completion of reclamation within 18 months after expiration of the project use permit with the Planning Division staff.*

Mitigation Measure AG-3: Financial Assurance. *Prior to the issuance of a building permit, the applicant shall post a performance or cash bond, submit a Certificate of Deposit, submit a letter of credit, or provide such other financial assurances acceptable to the County, in an amount provided in an Engineer's Cost Estimate, approved by the 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 shall 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.

By requiring that agricultural use continues on the project site for the life of the Daylight Legacy Solar Project, as specified in the Agricultural Management Plan in Mitigation Measure AG-1, the impact from the temporary and partial use of the Farmland of the project site for non-agricultural uses would be reduced to a less-than-significant level during the operational life of the project. By requiring that the entire project site be restored to its pre-project baseline conditions following decommissioning of the project, pursuant to the Soil Reclamation Plan specified in Mitigation Measure AG-2, as ensured with the accompanying Financial Assurance stipulated in Mitigation Measure AG-3, the impact from the potential permanent conversion of Farmland and grazing land of the project site to non-agricultural use would be reduced to a less-than-significant level. In conclusion, with the incorporation of the above-specified agricultural mitigation measures into the project, the potential impact to the agricultural resources of the project site would be *less than significant*.

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

As discussed previously in this section, the entire Daylight Legacy Solar Project site is subject to Farmland Security Zone (FSZ) Contracts and one Land Conservation contract under the Williamson Act. As such, the project applicant proposes to avoid any possible conflict with the Williamson Act contracts by maintaining a use on the site that meets the principles of compatibility pursuant to Government Code Section 51238.1(a) by maintaining reasonably foreseeable agricultural operations on the project site. The project's consistency with the applicable principles of compatibility, as set forth in the Government Code, is discussed below.

Government Code Section 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 land in agricultural preserves.

Discussion. The productive agricultural capability of the project site would be maintained during the life of the project by implementation of an Agricultural Management Plan (AMP) which specifies the ongoing maintenance of vegetative cover of the site for sheep grazing. Since more than 90 percent of the project site area would be maintained in vegetated cover, the use of the site for solar generation would not prevent the productive concomitant agricultural use of the site during project operation. The very light footprint of the solar generating facility upon the

site would allow for the preservation of native soil cover in place and allow for low impact removal of solar arrays and electrical equipment at the end of the facility's productive life. The long-term productive agricultural capability of the project site after decommissioning of the solar generating facility would be ensured through implementation of Mitigation Measure AG-2 which requires implementation of a Soil Reclamation Plan and contains detailed provisions on decommissioning, soil conditioning, revegetation, waste disposal, monitoring, and follow-up measures to ensure that the site has been effectively restored to pre-project conditions.

Solar facility operations would generally involve low levels of on-site activity consisting mainly of maintenance, repair and inspection, and periodic visits by panel cleaning and vegetation maintenance crews. Traffic generation would be very light, thus minimizing the potential for conflicts with agricultural vehicles and equipment on public roadways. Dust generation during project operations would not occur since the project would include no exposed soils that could be mobilized as windborne dust (e.g., approximately 90 percent of the site would be vegetated; approximately 9 percent of the site would consist of durable dust free road surface as required by the County's Improvement Standards, and less than 1 percent of the site would be covered by impervious surfaces of equipment pads, the O&M building, battery storage facilities, and the paved project entries and parking areas). The potential introduction of invasive weed species by the project would be minimized through implementation of the Weed Abatement Plan required under Article 11, Section 1112.B.2.e of the Kings County Development Code. The County's Right-to-Farm Ordinance would ensure that adjacent and nearby agricultural operations are not constrained by the need to reduce or eliminate minor incidental effects of cultivation upon adjacent and nearby solar facility operations. During project construction and decommissioning, the disturbance of soil could potentially generate dust. However, these project phases would be temporary in duration, lasting less than one year. Thus the impact of potential dust generation on the long-term productive agricultural capability of adjacent and nearby lands would not be significant. The less-than-significant impact with respect to dust generation would be further reduced through implementation of the Dust Control Plan to be approved by the San Joaquin Valley Air Pollution Control District prior to commencement of ground disturbing activities on the project site, pursuant to Air District Rule 8021. In summary, the Daylight Legacy Solar Project would not compromise long-term agricultural capability on adjacent contracted lands.

(2) *The use will not significantly displace or impair current or other reasonably foreseeable agricultural operations. 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.*

Discussion. In accordance with Government Code Section 51231, Kings County has adopted procedures for implementing the Williamson Act at the local government level, including rules related to compatible uses that are consistent with the Williamson Act's principles of compatibility. As discussed under 'Agricultural Setting' above, the current Kings County Williamson Act implementing procedures provide the following specific guidance in considering the compatibility of solar photovoltaic facilities in agricultural preserves:

> "Ordinarily, a solar project will be found compatible if the applicant provides a soil reclamation plan and financial assurances, and if the economic output of agricultural operations on the contracted parcel or parcels on which the project is located will be 90-

> percent of pre-project output. However, on November 26, 2013, the Board of Supervisors adopted Resolution No. 13-058, recognizing that due to reduced surface water deliveries, poor groundwater quality and severe groundwater overdrafts, impaired soil conditions, and regulatory burdens, circumstances exist on agricultural preserves located within that portion of Kings County south of State Route 198, west of State Route 41, and northeast of Interstate 5 that limit the use of much of the land within the territory for agricultural activities, such that it is reasonably foreseeable that certain parcels located there that currently are used for more intensive agricultural activities will be used in the near future for less intensive uses, including dry farm seasonal grazing. Notwithstanding the present agricultural use of the land, solar farming as a concomitant use with dry farm seasonal grazing or similar commercial agricultural activity may be deemed a compatible use within this region of the County if the applicant provides a soil reclamation plan and financial assurances, and if a finding can be made, based upon substantial evidence, and taking into account surface water availability, ground water quality and availability, and soil conditions, that the proposed concomitant commercial agricultural operation is a reasonably foreseeable use of the land (Kings County 2020a).

The following is a point by point evaluation of the project's consistency with the above County guidance with respect to the Daylight Legacy Solar Project.

First, the project site is located within the area identified in Board of Supervisors' Resolution No. 13-058 as being subject to circumstances, such as reduced surface water deliveries and impaired soil conditions that limit the use of much of this land to dry farm seasonal grazing as a reasonably foreseeable use of the land.

Second, as discussed under item 'a)' above, Mitigation Measure AG-2 requires the implementation of a Soil Reclamation Plan for the project, and Mitigation Measure AG-3 requires the provision of financial assurances for implementation of the project Soil Reclamation Plan.

Third, as described in Section *2.2. Project Description*, the project site plan retains permeable soil over 90 percent of the site area, which is to be vegetated with an approved seed mix for dry farm seasonal sheep grazing (which constitutes a reasonably foreseeable use of the land, as discussed in the first item above).

Fourth, there is substantial evidence that the project site is subject to reduced surface water availability, limitations due to groundwater quality and availability, and impaired soil conditions, such that dry farm seasonal grazing is a reasonably foreseeable use of the land. These conditions are discussed in turn below.

> Surface Water Supply. The entire project site is dependent upon imported CVP surface water deliveries through Westlands Water District (WWD) for agricultural irrigation. For a number of years, the WWD has been subject to curtailment of delivered water due to ongoing drought conditions and environmental regulations which have reduced the volume of surface water available to lands within the District boundaries. In addition, WWD has a low priority position, compared to other CVP contractors, and thus receives less federal contract water than higher priority districts during years of water shortage. Consequently, during the 10 years between 2013 and 2022, WWD received an average of 27 percent of its

contract water. In 2014, 2015, 2021 and 2022, WWD received 0 percent allocation of CVP water, and in 2016 received 5 percent of its contract water (WWD 2023).

Groundwater Availability. In January 2020, the WWD Board of Directors adopted the Groundwater Sustainability Plan (GSP) for the 622,215-acre Westside Subbasin (which includes the entire WWD service area of 614,700 acres). The GSP determined that the current sustainable yield for the subbasin is 305,000 afy per acre (WWD 2022). The groundwater allocation program established under the GSP includes a "transition period" from 2022 to 2030, in which a uniform annual allocation is initially established at 1.3 acre-feet per acre and then subsequently reduced each year by 0.1 afy per acre until 2030 when the allocation would reach 0.6 afy per acre (WWD 2022). For purposes of this analysis, the available groundwater supply is therefore defined as 0.6 afy per acre per year (WRP 2023).

In recent years, the crops typically grown on the project site included wheat, tomatoes and cotton, which require approximately 1.5, 1.5, and 2.5 acre-feet per acre per year of irrigation water, respectively. For comparison, vegetables require about 1.5 afy per acre, and tree crops require 2.5 to 3.0 afy per acre, while alfalfa hay requires 3.5 afy per acre (WWD 2013). Thus, during years with substantial curtailment of surface water deliveries, groundwater pumping would not provide enough water to make up the difference in supporting any of these crops without exceeding the groundwater extraction limit of 0.6 afy per acre. During drought years with severe water shortages, many fields are fallowed or farmed for winter wheat which relies on rainwater during the wet season.

Groundwater Quality. As discussed in detail under 'Agricultural Setting', recent studies have shown that the groundwater of the Daylight Legacy Solar Project site and adjacent areas have high concentrations of sodium and boron and other constituents which limit the volumes that can be applied given the limited tolerance of crops to these elements. Sampling from perched groundwater (i.e., groundwater in the near-surface soils) conducted by USBR in the mid-2000s found that Total Dissolved Solids (TDS - a measure of groundwater salinity) on the Daylight Legacy Solar site ranged from 3,000 to 6,000 mg/L. In 2018, well samples taken for the adjacent Aquamarine Solar Project site (which includes the same Lethant clay loam present over the majority of the Daylight Legacy site) found salt concentrations approximately 2,400 mg/L (Kings County 2019b). Due to the high salt concentrations in the groundwater, growing crops utilizing solely groundwater is not feasible.

Soil Conditions. Soils on the project site include Lethent clay loam, Calfax clay loam, saline-alkali, and Twisselman silty clay, saline-alkali. According the NRCS's Soil Survey of Kings County, when not irrigated, these soils have very severe limitations that make them unsuitable for cultivation and restrict their use mainly to pasture, grazing, forestland, or wildlife habitat. Even if irrigated, these soils would have moderate to severe limitations, reducing the choice of plants that can be cultivated or requiring special conservation practices (NRCS 1986). Soil studies conducted on the area farmlands have determined that the soils of the project site and neighboring sites have very high salt concentrations that place severe limitations on agricultural productivity. The saline soil conditions have been exacerbated by poor natural drainage which impedes flushing of salts from the near-surface soils (see "Agricultural Setting" above for detailed discussion). The short supply of high quality imported water limits the amount of surface water that can be applied to pre-

irrigate the soil to leach out some salts. Thus long-term soil salinity conditions are expected to increase (Kings County 2019b).

In summary, due to the severe limitation of reliable water availability and significant impairment of soil quality due to high salinity, the project site is not suitable for sustaining long-term agricultural crop production, and a reasonably foreseeable agricultural use of the site would be dry land farming with seasonal grazing.

(3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Discussion. The Daylight Legacy Solar Project is a self-contained solar generating facility and does not include electrical infrastructure with excess capacity that could be used to support similar solar generating facilities on adjacent contracted land. In Kings County, proposed solar projects are subject to Kings County's Conditional Use Permit requirements, including the implementation of an Agricultural Management Plans (AMPs), as required under Mitigation Measure AG-1, for maintaining dry farm sheep grazing as a concomitant use in order to maintain agricultural productivity of the site during operation of the solar facility. Solar project CUPs would also be subject to Mitigation Measure AG-2 which would require implementation of reclamation plans when the solar facilities are decommissioned, thus providing for restoration of the agricultural soils to pre-project conditions. With the implementation of these conditions on any adjacent or nearby solar projects, the Williamson Act principles of compatibility for Williamson Act contracts on such project sites would be met. As such, the Daylight Legacy Solar Project would not result in the termination of existing Williamson Act contracts or Farmland Security Zone contracts on adjacent lands.

The Daylight Legacy Solar Project would not result in the construction of new roadways, beyond internal maintenance driveways for the solar facility. Since the project would not include any excess roadway access or capacity that could serve adjacent contracted land, it would not induce the owners of such lands to remove adjacent contracted lands from agricultural use due to newly available roadway access.

Unlike urban development, the solar generating facility would not induce other development nearby, either for the purpose of providing support services or for taking advantage of services provided by the project. Solar generating facilities neither provide nor require urban services and therefore would not attract or induce other development nearby. Moreover, such urban development would not be permitted on adjacent or nearby lands under the applicable agricultural General Plan and zoning designations; thus the project would not result in the removal of agricultural preserves from adjacent contracted land through urban growth inducement.

As discussed under item (1) above, the low intensity of solar facility operations would generally minimize the potential for operations-related impacts to adjacent agricultural lands. Therefore, the project would not result in the removal of adjacent contracted land by way of introducing an incompatible land use to the site.

In summary, the Daylight Legacy Solar Project would be consistent with the Williamson Act principles of compatibility, as further defined by the Kings County Implementation Procedures for the Williamson Act, and therefore would have *no impact* in this regard.

With respect to the gen-tie line, this is a public utility use which is a permitted compatible use under the Williamson Act, as discussed under "Kings County Williamson Act Procedures" above. Therefore, the construction of either the planned or alternative gen-tie line would have *no impact* in terms of conflict with a Williamson Act contract.

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 Daylight Legacy 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 the following priority categories on the Daylight Legacy Solar Project site: "Medium Priority" – 201 acres; "Low-Medium Priority" – 1,593 acres; "Low Priority" – 313 acres (Kings County 2010b). The Low Priority and Low-Medium Priority lands are eligible for solar development without qualification. The 313 acres of Medium Priority lands would be considered eligible because the project would integrate concomitant agricultural production in the form of seasonal dry farm sheep grazing as stipulated under Mitigation Measure AG-1.

b. *The proposed site shall be located within 1 mile of an existing 60 KV or higher utility electrical line.*

   Discussion. Approximately 1.0 mile east of the project site, there is an existing 230-kV transmission gen-tie line running along the unimproved 25th Avenue alignment in a north-south direction. Therefore, the project would satisfy the finding that it is located within 1 mile of an existing 60-kV line or higher.

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. The entire 2,107-acre Daylight Legacy Solar Project site is mapped as Farmland of Statewide Importance under the Department of Conservation's Farmland Mapping and Monitoring Program. However, as discussed above, the project would include continued agricultural use, in the form of dry farm seasonal sheep grazing on more than 90 percent of the site area, concomitantly with the solar facility use on that portion of the project site. As discussed, dry farm seasonal sheep grazing is a reasonably foreseeable agricultural use of the site under the compatibility principles of the Williamson Act, and thus would not be considered a conversion of farmland to a non-agricultural use. Implementation of the Agricultural Management Plan for the project, as required under Mitigation Measure AG-1, would ensure the maintenance of seasonal sheep grazing on the site for life of the project. Mitigation Measures AG-2 and AG-3 would ensure that all of the soils of the project site are reclaimed to pre-project conditions upon decommissioning of the solar facility. Therefore, the project would not result in the conversion of Farmland of Statewide Importance to non-agricultural use, and no further 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 discussed above, Mitigation Measures AG-2 and AG-3 would require a Soil Reclamation Plan along with Financial Assurance to ensure its implementation. The soil reclamation plan and financial assurance would be subject to approval by the County Community Development Agency prior to the issuance of construction permits. Since the project site has no surface water rights *per se*, there are no surface water rights to be retained. CVP surface water has historically been supplied to the site by Westlands Water District. However, landowners do not hold any rights to receive these water deliveries, but must instead apply for surface water deliveries each year, and are provided water allocations based on CVP water availability for that year. It is noted that under WWD's Rules and Regulations, the Daylight Legacy Solar Project site will retain its status as "Eligible Cropland" and thus will be eligible to receive CVP surface water deliveries, as available in any given year. As discussed above, CVP surface water deliveries have averaged 27 percent of contract amounts over the past 10 years. In the extreme drought years of 2014, 2015, 2021 and 2022, no CVP allocation was provided to WWD farmers. Based on these facts, this 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 includes the preparation and implementation of a Pest Management Plan and Weed Abatement Plan, as required under the County Development Code. The Weed Abatement Plan would specify that the seed mixes used to revegetate the project site are free of weeds and consist predominantly of native plants. 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 only be used as a last resort and 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 PD-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 Daylight Legacy Solar Project would conform to this standard.

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

Discussion. As discussed in detail above, the proposed Daylight Legacy Solar Project would satisfy all of the Williamson Act principles of compatibility, as further defined by the Kings County Williamson Act Implementation Procedures.

In summary, the project is consistent with the zoning for the Daylight Legacy 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 Daylight Legacy Solar Project would result in *no impact* with respect to conflicts with the applicable zoning as set forth in the County Development Code.

With respect to the gen-tie line, the Kings County Development Code permits transmission lines within agricultural zones subject to review by the zoning administrator. Therefore, the gen-tie line 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 Daylight Legacy 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 Daylight Legacy Solar Project site or gen-tie corridors are zoned for forestland or timberland, according to the Kings County Zoning Plan (Kings County 1964). As such, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project site or in the site vicinity. As such, the Daylight Legacy Solar Project and Gen-Tie Line 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. As discussed under items 'a)' and 'b)' above, the Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line would involve no other changes to the existing environment which could result in the conversion of Farmland or forest land, and therefore would have a *less-than-significant impact* in this regard.

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

This section is based on the air quality assessment report prepared by Illingworth & Rodkin (I&R) in July 2023. 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 Daylight Legacy 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 2015c).

Air Quality Setting

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

Existing Air Quality

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

Ozone (O_3)

In the upper atmosphere, O_3 serves a beneficial purpose by reducing ultraviolet radiation potentially harmful to humans. However, when it reaches elevated concentrations in the lower atmosphere, it can be harmful to the human respiratory system and to sensitive species of plants.

O_3 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. While Kings County is fairly rural, exceedances of the ozone standard occurred on 13 to 27 days per year, based on the last 3 years of available monitoring data.

Nitrogen Dioxide (NO_2)

The major health effect from exposure to high levels of NO_2 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 O_3 and can affect regional visibility. Nitrogen dioxide is one compound in a group of compounds consisting of oxides of nitrogen (NO_x). As described above, NO_x is an O_3 precursor compound.

Particulate Matter (PM)

Regulated fractions of particulate matter include PM_{10} 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 PM_{10} 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.

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.

Based on measured PM_{10} levels in the San Joaquin Valley, CARB estimates that the state standards are exceeded 104 to 132 days per year. It is noted that wildfire smoke contributed to the highest measured levels and the number of days that the standards were exceeded.

Carbon Monoxide (CO)

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.

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.

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 O_3 and the State standards for PM_{10} 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 O_3 standard and *nonattainment* for the 24-hour $PM_{2.5}$ standard. The US EPA recently reclassified the San Joaquin Valley as attainment of the federal PM_{10} standards. The US EPA classifies the region as *attainment* or *unclassified* for all other air pollutants, including carbon monoxide (CO) and nitrogen oxide (NO_2). At the State level, where air quality standards are more stringent than the federal standards, the region is considered *severe non-attainment* for ground level O_3 and *non-attainment* for PM_{10} 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 2018 $PM_{2.5}$ Plan. 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

In order to reduce emissions of ozone precursors (i.e., ROG and NO_x) and PM_{10} from new land use development projects, and achieve the attainment plans for each pollutant, the SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) in 2005. The rule requires projects to reduce both construction and operational period emissions by specified amounts by applying the SJVAPCD-approved mitigation measures and/or paying fees to support off-site mitigation programs that reduce emissions.

For construction emissions, Rule 9510 requires the following reductions:

- 20 percent reduction from unmitigated baseline in total NO_x exhaust emissions
- 45 percent reduction from unmitigated baseline in total PM_{10} 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 PM_{10} 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 expected costs to cover administration of the program. Off-site emission reduction projects to be funded through ISR include retrofitting heavy-duty engines, replacing agricultural machinery and pumps, paving unpaved roads and road shoulders, trading out combustion-powered lawn and agricultural equipment with electrical and other equipment, as well as a number of other projects that result in quantifiable emissions reductions of PM_{10} and 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 PM_{10} from fugitive dust through several rules collectively known as Regulation VIII (Fugitive PM_{10} Prohibitions). The purpose of these rules is to reduce ambient concentrations of PM_{10} 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 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 form 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 Daylight Legacy 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, PM2.5 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 PM_{10} and Ozone attainment plans. The District has determined that implementation and compliance with the ISR would reduce the cumulative PM_{10} 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 its implementation of ISR emission reduction measures, the project would fulfill its share of achieving the District's emission reduction commitments in the PM_{10} and Ozone attainment plans. Therefore, the Daylight Legacy Solar Project would result in a *less-than-significant impact* in this regard 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 PM_{10} 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 PM_{10}/$PM_{2.5}$ levels from exhaust emissions. Over the long-term, the project would result in an increase in emissions of ozone precursors such as ROG and NOx, primarily due to increased motor vehicle trips (employee trips, truck deliveries, and on-site maintenance activities). The construction and operational emissions associated with the Daylight Legacy Solar Project and Gen-Tie Line 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 PM_{10}/$PM_{2.5}$. Windy conditions during construction could cause substantial emissions of PM_{10}/$PM_{2.5}$.

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, this plan is 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 PM_{10} 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 were modeled using the CalEEMod model. Unmitigated and mitigated emissions from all phases of construction are shown in Tables AQ-1 and AQ-2 below.

Construction emissions were estimated based on the construction schedules, and anticipated construction vehicle and equipment use for both the Daylight Legacy Solar Project and gen-tie line. 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. Also included are the emissions from the use of a helicopter for installation of the gen-tie line. Both criteria air pollutant exhaust and fugitive dust (i.e., PM_{10} 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 PM_{10} 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.

As shown in Table AQ-1, the unmitigated construction emissions from the project would exceed the applicable Air District threshold for PM_{10}. This represents a potentially *significant impact* to air quality.

TABLE AQ-1
UNCONTROLLED CONSTRUCTION EMISSIONS IN TONS PER YEAR*

Construction Year	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
2025/26	1.29	9.73	11.11	**83.66**	8.91
Significance Thresholds	10	10	100	15	15
Uncontrolled emissions exceed threshold?	**No**	**No**	**No**	**Yes**	**No**

* Values reported for PM_{10} and $PM_{2.5}$ include fugitive dust emissions and diesel exhaust emissions combined. Fugitive dust emissions do not include the effect of measures implemented under Regulation VIII. Since the total length of the alternative gen-tie line is the same as the planned gen-tie line, at 2.5 miles, the construction inputs would be the same, and so the emissions would also be the same.
Source: Illingworth & Rodkin, 2023

The SJVAPCD Indirect Source Review Rule (Rule 9510) applies to construction emissions from the project. Regardless of whether a project's construction emissions of regional pollutants would exceed the Air District's CEQA significance thresholds for each pollutant or not, 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 construction exhaust emissions by 20 percent for NO_x and 45 percent for PM_{10} from calculated unmitigated levels. 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 emissions reported in Table AQ-1 (above) do not include the reductions required by Rule 9510.

Effectiveness of Dust Control Measures

Table AQ-2 shows annual construction period emissions utilizing specific fugitive dust control measures. The CalEEMod modeling indicates that site watering, unpaved roadway watering (or use of dust suppressants) and reduced vehicle speed would reduce PM_{10} emissions substantially. SJVAPCD requirements (i.e., Regulation VIII) would further reduce PM_{10} emissions. It was previously noted that under Rule 9510 (ISR), the project would be responsible for reducing construction PM_{10} emissions by 45 percent, and NOx emissions by 20 percent. These reductions are not reflected in Table 2.

TABLE AQ-2
CONTROLLED CONSTRUCTION EMISSIONS IN TONS PER YEAR[1]

Construction Year	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
2025/26	1.29	9.68[2]	11.11	11.49[2]	1.56
Significance Thresholds	10	10	100	15	15
Controlled emissions exceed threshold?	**No**	**No**	**No**	**No**	**No**

[1] Values Include effect of fugitive dust control in the form of site watering and on-site vehicle speed limits, but does not include the effect of measures implemented under Regulation VIII which would further reduce emissions. These emissions estimates include those from construction of the gen-tie line, or the alternative gen-tie line which would have the same emissions.
[2] Values do not include the effects of emissions reductions required under the Indirect Source Review Rule (9510).
Source: Illingworth & Rodkin, 2023

A substantial portion of the emissions associated with construction would be emitted by haul trucks or vendors that travel to and from the project site. These emissions would not be directly affected by the application of the ISR Rule (9510), which would only apply to on-site equipment (i.e., haul truck emissions are regulated by State and federal standards, and are not subject to local regulation). Nevertheless, the total emissions associated with project construction, including emissions from haul trucks, would be further reduced by project compliance with ISR.

SJVAPCD regulations that would apply to construction activities include Regulation VIII, regarding dust control, 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 form asphalt paving materials.

As shown in Table AQ-2, construction period emissions of NO_x and PM_{10} would be reduced to below the thresholds used by SJVAPCD to judge the significance of construction air quality impacts under CEQA. Therefore, the overall emissions resulting from project construction activity would be *less than significant*. Thus, while the residual construction-related emissions of ozone precursors and particulates may result in a small decrease in overall air quality, and may therefore have a small adverse health affect (as described under "Criteria Air Pollutants and Their Health Effects" in the Air Quality Assessment in Appendix A), the overall health impact would be *less than significant*.

Project Operation

The operation of the Daylight Legacy 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 Daylight Legacy Solar Project. Since 2027 is the first full year that the Daylight Legacy Solar Project could be operational, that year was used as the analysis year. Maintenance vehicles and some off-road equipment usage would occur on-site, as well as workers traveling and occasional equipment and vendor deliveries, would result in some emissions. The annual emissions from project operation are shown in Table AQ-3. Operational emissions from the gen-tie line would be negligible and were not estimated.

As shown in Table AQ-3, the annual emissions from the project operation would not exceed the applicable Air District thresholds for ROG, NO_x, PM_{10}, or $PM_{2.5}$. Therefore, the air quality impact of project operation, in terms of regional pollutants, would be *less than significant* under CEQA.

TABLE AQ-3
ANNUAL PROJECT OPERATIONAL EMISSIONS IN TONS PER YEAR

Phase	ROG	NO_x	CO	PM_{10}[1]	$PM_{2.5}$[1]
Project Operations	0.08	0.60	1.11	3.48	0.37
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, 2023

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 discussed above under 'Construction Exhaust Emissions', the project is subject to SJVAPCD's Indirect Source Review or Rule 9510 (ISR) to reduce NO_x and PM_{10} emissions. Although the project's operational emissions of regional pollutants would not exceed the Air District's CEQA significance thresholds for each pollutant, as shown in Table AQ-3, 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. Under Rule 9510, the project would typically be required to reduce operational NO_x

emissions by 33.3 percent and operational PM_{10} emissions by 50 percent over 10 years. The emissions in Table AQ-3 do not reflect any reductions that may be required under ISR. However, operational emissions for NOx are well below the Partial Exemption limits of ISR (i.e., 2.0 tons). Therefore, requirements of ISR to further reduce NOx emissions may not be applicable to the Daylight Legacy Solar Project. In order to determine if the project would qualify for an exemption, the project applicant would still be required to submit an AIA application to the Air District staff, who would determine if the exemption applies.

In summary, the operational emissions of ROG, NOx, PM_{10} 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 Daylight Legacy Solar facility would be decommissioned at the end of its productive life after about 40 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. With the application of Regulation VIII dust control requirements, fugitive PM_{10} 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*.

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-2) above, project construction emissions of ozone precursor pollutants (ROG and NO_x) were found to be less-than-significant without mitigation, and PM emissions were found to be less-than-significant after mitigation (i.e., with application of SJVAPCD's required dust control measures). As discussed in item 'b)' (and shown in Table AQ-3) above, project operational emissions of ozone precursor pollutants (ROG and NO_X) and PM_{10} were found to be less-than-significant without mitigation. As discussed in item 'a)' above, the project would fulfill its share of achieving the Air District's emission reduction commitments in the PM_{10} and Ozone attainment plans through its obligation to implement ISR emission reduction measures under Air District 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 be *less than significant*.

Local Air Pollutant Emissions

Construction period PM_{10} emissions would be localized. With implementation of SJVAPCD Regulation VIII dust control measures, 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*.

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 receptors to the Daylight Legacy Solar Project site include: 1) The Shannon Ranch complex (including 20 dwellings) located opposite Avenal Cutoff Road to the northwest, and; 2) The Stone Land Company Ranch located 2.2 miles west on Nevada Avenue. The nearest residences to the off-site gen-tie segment would be the base housing at NASL (1.6 miles north of the planned gen-tie line), and the Stone Land Company Ranch (1.8 miles west of the alternative gen-tie line) at their nearest points.

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 (SO_2) 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 20 years. The San Joaquin Valley Air Basin has attained the State and National CO standards.

In order to determine whether 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 of 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 Daylight Legacy 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 Daylight Legacy 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 worker vehicles, delivery trucks, and maintenance vehicles.

The highest daily levels of DPM would be emitted during construction activities from use of heavy-duty diesel equipment such as graders, excavators, loaders, 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 12-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 PM_{10} emissions, of which diesel exhaust constitutes a substantial component. Tables AQ-1 and AQ-2 above show that PM_{10} emissions from solar project construction would be well below the applicable significance threshold. Table AQ-3 above shows that PM_{10} emissions from operational activities would also be well below the significance threshold.

Due to the location of the Shannon Ranch complex, with its 20 dwellings, directly opposite Avenal Cutoff Road from the project site, and because a portion of project construction traffic would pass directly by the Shannon Ranch, Illingworth & Rodkin conducted dispersion modelling to calculate DPM and other TAC concentrations at the sensitive receptor locations on the Ranch property. The dispersion modelling was used to compute the total increased cancer risk from project construction on the maximally exposed individual (MEI). The increased cancer risk for the MEI from project construction was calculated to be 1.14 in one million, and the increased cancer risk from project operation was calculated to be 0.18 in one million, both of which are well below the Air District's significance threshold of 20 in one million. Even if decommissioning emissions were added, and conservatively assuming such emissions would be equivalent to construction emissions, the total increase in cancer risk from construction, operation and decommissioning of the Daylight Legacy Solar Project and Gen-Tie Line would be about 2.5 cases, and likely far fewer. (See I&R's air quality report in Appendix A for a detailed discussion of methods and results of the dispersion modelling.)

Because of the relatively small levels of DPM emissions during project construction and operation, and due to the substantial distances to the next nearest sensitive receptors (e.g., base housing at NASL located 1.6 miles north of the planned gen-tie line, and two dwellings at Stone Land Company Ranch located 1.8 miles east of the alternative gen-tie), DPM emissions from project construction would disperse to negligible levels at these and other more distant receptor locations.

In summary, the health impacts associated with exposure to DPM from project construction and operation are not anticipated to be significant. Therefore, the Daylight Legacy 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 a 70 percent drop-off in DPM concentrations at approximately 500 feet from the source (BAAQMD 2017, p. 8-7). This is reflected in the screening tables prepared by the Bay Area Air Quality Management District (BAAQMD) to determine distances where TAC exposures would be reduced to less than significant levels. For the largest construction projects, the recommended distance is up to 1,000 feet from the sensitive receptor location (BAAQMD 2010, p. 9). Thus multiple sources of DPM emissions must all be proximate to a receptor to have a significant additive effect to DPM concentrations at the receptor site. Even the nearest sensitive receptors to the Daylight Legacy Solar Project would be subject to increased cancer risk of less than 2.5 cases in one million from project construction, operation and decommissioning. Most DPM emissions from the project would disperse into the atmosphere before reaching the next nearest sensitive receptor locations.

The SJVAPCD's TAC significance criterion for an individual project is an increase in cancer risk of more than 20 new cancer cases per million persons as measured over a 70-year lifetime for the maximally exposed individual (SJVAPCD 2015b). For context, it is noted that the lifetime cancer risk to the population from all sources is approximately 250,000 cases per million (or 1 case per 4 individuals)(SJVAPCD 2015c, p. 100). The 20 per million significance criterion is applied to individual projects where there is a potential for a significant health impact to nearby sensitive receptors. This same significance threshold is applied by SJVACPD for cumulative TAC impacts, although the Air District considers it to be stringent (SJVAPCD 2015c, p. 110).

The nearest residential receptors to the Daylight Legacy Solar Project site comprise the 20 dwellings at the Shannon Ranch complex, the nearest of which is located approximately 200 feet northwest of the project site. The nearest approved and pending solar projects which could potentially contribute TAC emissions at this receptor location are: the Cherry Solar Project located 1.0 mile southeast of the nearest Shannon Ranch dwellings; the Solar Blue Project located 1.8 miles east; the Aquamarine Solar Project located 2.0 miles northeast; the Grape Solar Project located 2.4 miles southeast; and the Chestnut/Castanea Solar Project located 3.0 miles southeast of the nearest Shannon Ranch dwellings. (Although these projects would not be constructed concurrently with each other or the Daylight Legacy Solar Project, they are included in this analysis since TAC analyses consider the lifetime exposure of the receptors without regard to construction schedule.) At these distances, the increased cancer risk at the Shannon Ranch receptor location from each of these other projects would be far less than 2.5 cancer cases per million associated with the Daylight Legacy Solar Project. Under a very conservative assumption that each of these projects (which are all similar in size to the Daylight project) would result in a cancer risk rate of no more than 2.5 per million (and likely far less), and that the cancer risks associated with individual projects can be aggregated in absolute terms, the combined lifetime exposure from TAC emissions at the Shannon Ranch dwellings from all six projects (including Daylight) would be less than 15.0 cancer cases per million, which is well below the significance threshold of 20 cases per million. Thus it is not expected that the cumulative effects would result in a significant increase in cancer risk at the nearest sensitive receptor subject to diesel emissions from other solar projects in the vicinity of the

Daylight Legacy Solar Project. Therefore, the cumulative health risk impact associated with the Daylight Legacy 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 Daylight Legacy Solar Project site and gen-tie corridor 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 receptors. There are no other emissions sources associated with the Daylight Legacy Solar Project. Other than emissions discussed previously in this section, the Daylight Legacy 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*.

REFERENCES – AIR QUALITY

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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) 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?	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	■	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	■	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

This section summarizes the analysis and conclusions of the biological assessment report prepared by Live Oak Associates (LOA) in November 2023. The biological report on the Daylight Legacy Solar Project includes coverage of both the planned gen-tie corridor and the alternative gen-tie corridor. The LOA report is contained in Appendix B of this document.

Biological Setting

Biotic Habitats/Land Uses

The three habitat types/land uses on the Daylight Legacy Solar Project include: agricultural fields; agricultural canals and ditches, and; developed roads running through and along the site. These are discussed in turn below.

Agricultural Fields

The majority of the project site consists of agricultural fields which have been cultivated in the recent past for cotton, tomatoes, and winter wheat. Non-agricultural vegetation in the agricultural fields is sparse and dominated by weedy non-native species.

Regular agricultural activities on the site create slightly to moderately suitable habitat for most animal species. Animal species observed during the 2023 survey include the turkey vulture, red-tailed hawk, European starling, as well as a sparrow species; California ground squirrel burrows were also observed.

Reptile species that may forage in this habitat include lizards such as the side-blotched lizard and western whiptail, and snakes such as the gopher snake, and common kingsnake.

Resident bird species expected to use this habitat would include Brewer's blackbirds, brown-headed cowbirds, and European starlings, among others. Wintering birds that may utilize the disked fallow field would be the savannah sparrow, American pipit, and Say's phoebe, among others. Summer migrants such as the barn swallow may forage on the site.

Burrowing rodent activity in the fields is expected to be minimal due to the ground disturbance regime. Botta's pocket gopher burrows may occur within the site, and California ground squirrel burrows were observed along the agricultural field perimeters.

The site offers limited foraging opportunities for mammalian and avian predators. Raptors such as red-tailed hawks, Swainson's hawks, great horned owls, burrowing owls, and barn owls may occasionally forage on the site, and burrowing owls are known to breed adjacent to the larger managed canals in the surrounding local vicinity. Disturbance-tolerant mammalian predators such as raccoons, striped skunks, coyotes, and red foxes may occasionally forage on or pass through the site.

Agricultural Canals and Ditches

Several agricultural canals and ditches run through and along the project site, but most of these are dry. All of the canals and ditches on and adjacent to the project site are no longer used to convey irrigation or drainage water since the transition to drip irrigation over the past 20 years. The canal segment running along the eastern site boundary along 26th Avenue between Laurel Avenue and Lincoln Avenue is used to store pumped groundwater for use by tanker trucks for dust suppression during the ongoing construction of the Solar Blue and Castanea (Chestnut) Solar projects to the east of the project site. The other canals and ditches on and adjacent to the project site are dry.

The canals could provide suitable habitat for burrowing owls in the local vicinity. To the extent that the canals and ditches on the site may contain water, pacific chorus frogs and western toads may use them for breeding and may also disperse through the adjacent fields during the winter and spring or when the fields are not regularly disked.

Developed

There are several roads, both improved and unimproved (i.e., dirt) roads that border the site as well as intersect it. There are no buildings, sheds, or other structures on the Daylight Legacy Solar Project site.

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 3 plant species and 41 animal species with potential to occur in the project area (see Table BIO-1). All three of the listed plant species (California jewel-flower, Kern mallow, and San Joaquin woollythreads) are considered to be absent from the project site. Twenty-seven animal species are either absent or are considered unlikely to occur on the Daylight Legacy Solar Project site. These include: vernal pool fairy shrimp, valley elderberry longhorn beetle, Delta smelt, California tiger salamander, California red-legged frog, giant garter snake, blunt-nosed leopard lizard, western yellow-billed cuckoo, Buena Vista Lake ornate shrew, Nelson's antelope squirrel, giant kangaroo rat, Fresno kangaroo rat, Tipton kangaroo rat, San Joaquin kit fox, Western spadefoot, Western pond turtle, Temblor legless lizard, Coast horned lizard, California glossy snake, San Joaquin whipsnake, American white pelican, black swift, Vaux's swift, Tulare grasshopper mouse, short-nosed kangaroo rat, American badger, and ringtail.

An additional 14 animal species may regularly or occasionally utilize the Daylight Legacy Solar site for foraging, including the Swainson's hawk, western snowy plover, tricolored blackbird, white-faced ibis, northern harrier, white-tailed kite, mountain plover, burrowing owl, long-eared owl, loggerhead shrike, yellow-headed blackbird, Townsend's big-eared bat, pallid bat, and California mastiff bat. 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. White-faced ibis may possibly forage in agricultural fields of the project vicinity from time to time.

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 Daylight Legacy Solar Project site and gen-tie corridor for these species.

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

PLANTS ***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts***			
Common and scientific names	**Status**	**General habitat description**	***Occurrence in the Project Site**
California jewelflower (*Caulanthus californicus*)	FE, CE, CRPR 1B.1	Habitat: Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland. Elevation: 61-1000 meters. Blooms: February–May.	**Absent.** Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been highly modified for human use.
Kern mallow (*Eremalche parryi* ssp. *kernensis*)	FE, CRPR 1B.2	Habitat On dry, open sandy to clay soils; often at edge of balds in Chenopod scrub, Pinyon and juniper woodland, Valley and foothill grassland. Elevation: 70 – 1290 meters. Blooms: January - May.	**Absent**. Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been highly modified for human use.
San Joaquin woolythreads *(Monolopia congdonii)*	FE CRPR 1B.2	Habitat: Chenopod scrub, valley and foothill grassland. Elevation: 60-800 meters. Blooms: February-May.	**Absent**. Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been highly modified for human use.
ANIMALS ***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts***			
Common and scientific names	**Status**	**General habitat description**	***** Occurrence in the Project Site**
Vernal pool fairy shrimp (*Branchinecta lynchi*)	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 (*Desmocerus californicus dimorphus*)	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.
California tiger salamander *(Ambystoma californiense)*	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.
Delta smelt (Hypomesus transpacificus)	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 2 ppt. 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.** This fish species occurs only in the waters of the San Francisco Bay-Delta Estuary with the USFWS 2004 5-Year Review identifying Mossdale, California as the furthest upstream (southward) historical limit of their range within the San Joaquin River watershed. Since the project site is located 140 miles south of the Delta and more than 130 miles from Mossdale, this species will not occur on the project site or vicinity. Additionally, the project would not impact any waterways.

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

ANIMALS ***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
California red-legged frog (Rana draytonii)	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$^{o}/_{o}$.	**Absent.** In the San Joaquin Valley, suitable habitat for this species occurs along the east side of the valley as far south as Fresno County, and the Recovery Plan does not include the area of the site within Kings County as being within this species' current range (post 1985). Therefore, this species will not occur on the project site or vicinity.
Giant garter snake *(Thamnophis gigas)*	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**. Although the project site lies within the historic range of the giant garter snake, this species is no longer known to occur south of the San Joaquin River in Fresno County, approximately 45 miles north of the project site. Therefore, this species will not occur on the project site or vicinity.
Blunt-nosed leopard lizard (*Gambelia silus*)	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 project site and vicinity and there are no reported sightings of this species within 15 miles of the project site. Therefore, this species will not occur on the site or vicinity.
Swainson's hawk *(Buteo swainsoni)*	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Present.** Foraging habitat is available throughout the project area. Potential breeding habitat in the form of potential nest trees is present off-site and adjacent to the site on the corner of Avenal Cutoff Road and W. Gale Avenue. Swainson's hawks were observed flying over the site during site visits for the WSP Master Plan site during the April 10 and May 28, 2018, and April 11, 2019 site visits; they are known to occur over and adjacent to the site, per previous surveys conducted by LOA as well.

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

ANIMALS ***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
Western yellow-billed cuckoo (Coccyzus americanus occidentalis)	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 Daylight Legacy Solar site.
Western snowy plover (*Charadrius alexandrines nivosus*)	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 along agricultural canals within the project site. The closest recorded observation of this species is more than three miles from the project site (CDFW 2023).
Tricolored Blackbird (*Agelaius tricolor*)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible.** Foraging habitat for this species is present within the project site in the form of cattails in the canals of the site and in the vicinity of the site; however, presence of breeding habitat on the site itself would depend on the type of crop planted from season to season. Tricolored blackbirds are known to nest in wheat fields.
Buena Vista Lake ornate shrew (Sorex ornatus relictus)	FE	Occurs in marshes on the edges of Lake Buena Vista, Kern County, may occur, but currently presumed absent from Tulare Basin.	**Absent.** The only water near the site is contained in some canals. Suitable habitat, including riparian or wetland habitats are absent from the site. Prey species for the BVLS are likely to be few on the site as well. Since none of the habitat elements required for the Buena Vista Lake ornate shrew are present on the site and it is not within the Kern Lake Preserve Unit, it is concluded that there is no potential for this species to occur on the project site.
Nelson's antelope squirrel *(Ammospermophilus nelsoni)*	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.
Giant kangaroo rat (Dipodomys ingens)	FE, CE	Inhabits grasslands on gentle slopes generally less than 10 degrees, with friable, sandy-loam soils.	**Absent.** Habitats required by this species are absent from the project site and surrounding agricultural lands due to intensive agricultural use. Additionally, in California this species' range is confined to the western edge of the San Joaquin Valley and the foothills along the western edge of the San Joaquin Valley. Since this species is not present in agricultural areas of the central San Joaquin Valley, which does not support suitable habitat for this species, it will not occur on the project site or vicinity.

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

ANIMALS ***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
Fresno kangaroo rat (Dipodomys nitratoides exilis)	FE, CE	Inhabits grassland on gentle slopes generally less than 10 degrees, with friable, sandy-loam soils.	**Absent**. Habitats required by this species are absent from the project site and surrounding agricultural lands due to intensive agricultural use.
Tipton kangaroo rat (Dipodomys nitratoides nitratoides)	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 but the current distribution is more than 25 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 at the northernmost edge of this species' range. There are no reported sightings of this species west of the Kings River which is three miles east of the project site and forms a barrier to westward movement toward the project site. Therefore, this species will not occur on the site or vicinity.
San Joaquin kit fox (Vulpes macrotis mutica)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	**Unlikely.** Some burrows observed in the surrounding area were of suitable size for the kit fox. However, nearly all these burrows were within the vicinity of California ground squirrels or actively used by ground squirrels. The project site and the surrounding area 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 or in the surrounding area, but there have been numerous documented sightings within a ten-mile radius of the project site between 1975 and 2000 (CNDDB 2022). Therefore, kit foxes are unlikely to breed within the project site but may occasionally forage within the site, and may use the site for dispersal movements.

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

ANIMALS ***State Species of Special Concern (adapted from CDFW 2023 and USFWS 2023)***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
Western spadefoot (*Scaphiopus hammondii*)	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. Terrestrial habitat required for estivation is absent from cultivated fields.
Western pond turtle *(Actinemys marmorata)*	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes.	**Unlikely.** While marginal habitat, in the form of the canals, exists within the project site.
Temblor legless lizard *(Anniella alexanderae)*	CSC	The Temblor legless lizard (previously called silvery legless lizard) occurs mostly underground in warm moist areas with loose soil and substrate and is known only from two sites west of Highway 33 at the base of the Temblor Range between McKittrick and Taft in Kern County.	**Absent.** The project site is outside this species' range.
Coast horned lizard *(Phrynosoma blainvillii)*	CSC	Grasslands, scrublands, oak woodlands, etc. of central California. Common in sandy washes with scattered shrubs.	**Absent.** Habitats required by this species are absent because they have been heavily modified for human use.
California glossy snake *(Arizona elegans occidentallis)*	CSC	Occurs in arid areas with grassland, scrub, chaparral, and rocky washes. This species is nocturnal and spends the day in burrows.	**Absent.** Habitats required by this species are absent from the project site and vicinity**.**
San Joaquin whipsnake *(Masticophis flagellum ruddocki)*	CSC	Open, dry habitats with little or no tree cover. Found in valley grasslands and saltbush scrub in the San Joaquin Valley.	**Absent.** Habitats required by this species are absent from the project site and vicinity.
American white pelican *(Pelecanus erythrorhynchos)*	CSC	Nests on islands in large lakes or on ephemeral islands in shallower wetlands.	**Unlikely.** Nesting habitat is absent from the project site. This species has observed flying over the general area in previous years; however, the species is unlikely to stop and nest within the project site.
White-faced ibis *(Plegadis chihi)*	CSC	Salt and freshwater marsh as well as grain and alfalfa fields.	**Possible.** Foraging habitat required for this species is present in the form of the agricultural fields within the project site. Breeding habitat is absent.
Northern harrier *(Circus cyaneus)*	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**Possible.** Northern harriers were observed foraging over agricultural fields within the general area during previous surveys for the WSP area, and foraging and breeding habitat exists on the project site.

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

ANIMALS ***State Species of Special Concern (adapted from CDFW 2023 and USFWS 2023)***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
White-tailed kite (Elanus leucurus)	CP	Open grasslands and agricultural areas throughout central California.	**Possible.** Suitable foraging and breeding habitat occurs for this species within the project site.
Mountain plover (Charadrius montanus)	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 (Athene cunicularia)	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.	**Likely.** Past site visits in the local vicinity and WSP area identified breeding burrowing owls along canals and identified a large number of overwintering burrowing owls on adjacent lands in the vicinity of the project site. Currently, suitable habitat onsite consists mainly of ground squirrel burrows along canals and the margins of agricultural fields. As burrowing owls are known to occur in the area, it is possible they may occur on the project site, particularly along canals and margins of the agricultural fields.
Long-eared owl (nesting) (Asio otus)	CSC	Occurs on edge habitats including in clumps of trees or edges of open forests that are adjacent to grasslands, shrublands, wetlands, marshes, and farmlands. Need stick nests built by other birds in trees.	**Possible.** The project site does not support suitable nesting habitat for this species except for utility poles (unlikely). Therefore, long-eared owls may use the project site for breeding or foraging.
Black swift (Cypseloides niger)	CSC	Migrants found in many habitats of state; in Sierra nests are often associated with waterfalls.	**Absent.** The project site does not provide suitable breeding or foraging habitat for this species.
Vaux's swift (Chaetura vauxi)	CSC	Migrants move through the foothills of the western Sierra in spring and late summer. Some individuals breed in the region.	**Absent.** The project site does not provide suitable breeding or foraging habitat for this species.
Loggerhead Shrike (Lanius ludovicianus)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Likely.** This species has been observed on adjacent lands during surveys for the WSP. The project site may support marginal nesting habitat within vegetated canals.
Yellow-headed blackbird (Xanthocephalus xanthocephalus)	CSC	Occurs in freshwater marshes with cattails, tule, and bulrush during the summer and open, cultivated fields and pastures in the winter.	**Possible.** The canals on the site support potential breeding and foraging habitat for this species.

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

ANIMALS ***State Species of Special Concern (adapted from CDFW 2023 and USFWS 2023)***			
Common and scientific names	**Status**	**General habitat description**	*** Occurrence in the Project Site**
Tulare grasshopper mouse (*Onychomys torridus tularensis*)	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.
Short-nosed kangaroo rat (*Dipodomys nitratoids brevinasus*)	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**. Habitats required by short-nosed kangaroo rats are absent from the study area and surrounding agricultural lands due to intensive agricultural use.
Townsend's Big-eared bat *(Corynorhinus townsendii)*	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 *(Antrozous pallidus)*	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.** Although suitable habitat for the pallid bat is absent from the project site, the entire site supports suitable foraging habitat for this species.
California mastiff bat *(Eumops perotis ssp. californicus)*	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.** Although suitable habitat for the California mastiff bat is absent from the project site, the entire site supports suitable foraging habitat for this species.
American badger *(Taxidea taxus)*	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	**Unlikely.** No burrows of the size and shape suitable for this species were observed on the project site. It is possible this species may establish burrows within the project site; however, it is unlikely that badgers would breed on the site or within the vicinity.
Ringtail *(Bassariscus astutus)*	CP	Riparian and heavily wooded habitats near water.	**Absent.** Habitat for this species is absent from the project site.

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

***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
FT	Federally Threatened
FPE	Federally Endangered (Proposed)
FC	Federal Candidate
CE	California Endangered
CT	California Threatened
CR	California Rare
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
1B	Plants Rare, Threatened, or Endangered in California and elsewhere
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3	Plants about which we need more information – a review list
4	Plants of limited distribution – a watch list
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, 2023

Endangered, Threatened, or Special Status Animal Species Meriting Further Discussion

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.

Between 2010 and 2022, LOA biologists conducted multiple surveys for Swainson's hawk nests in the project area. The surveys found no nest sites within the Daylight Legacy Solar Project site. On several occasions during the surveys, a number of Swainson's hawks were observed foraging in agricultural fields in the project vicinity and flying over the former tailwater basin located 0.7 mile east of the project site. (Note: Due to the transition of irrigation practices to drip irrigation, the irrigation return flows which previously had been captured in the tailwater basin gradually ceased, resulting in the desiccation of basin such that it has been completely dry for several years.) In 2015, a Swainson's hawk was observed landing in a tree at the former tailwater basin, but exhaustive searches that year and in other years failed to detect the presence of Swainson's hawk nest within trees surrounding the former tailwater basin. (For a map showing Swainson's hawk nests, see Figure 1 in Appendix A of LOA's biological report, which is contained in Appendix B of this document.)

Multi-year nest surveys by LOA and others over the past 10 years indicate that there are 37 Swainson's hawk nests within a 10-mile radius of the Daylight Legacy Solar Project site, of which the nearest four nest sites are located between 5 and 6 miles to the northwest, north, northeast, and east of the project site. Since Swainson's hawks tend to return to the same nests each year, it is likely that most or all of these nests would be occupied in any given year.

Based on their field surveys, LOA biologists concluded that due to the lack of suitable nest trees, Swainson's hawks are not expected to nest on the Daylight Legacy Solar Project site, although they will likely forage on the project site. However, potentially suitable nesting habitat occurs in the trees surrounding the former tailwater basin to the east of the site, and also at a clump of landscape trees on the Shannon Ranch complex located opposite Avenal Cutoff Road from the western edge of the project site.

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.

During LOA's site survey conducted in July 2023, no burrowing owls were observed; however, potential suitable habitat exists on the project site along portions of the on-site canal channels and edges of agricultural fields.

Previous surveys by LOA in the project vicinity identified breeding burrowing owls along canals and identified a large number of overwintering burrowing owls on adjacent lands in the vicinity of the

project site. Potential suitable, but unoccupied habitat on-site, consists mainly of ground squirrel burrows along canals and the margins of agricultural fields.

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.

Conditions in the project area consist predominantly of cultivated and fallow agricultural fields, which are generally unsuitable for foraging kit fox. Having been modified for agricultural use, the project site provides a limited prey base especially in the cultivated fields and, therefore, constitutes poor foraging habitats for kit fox. No kit fox, or their sign, were observed during any of the site visits by LOA ecologists between 2011 and 2023.

According to records of kit fox sightings in the region, there have been a total of 19 historical (1975-2002) sightings within the 10 miles of the Daylight Legacy Solar Project site. All of these sightings occurred at least 5.0 miles from the project site. (For a map showing the locations of these kit fox sightings, see Figure 4 in LOA's biological report, contained in Appendix B of this document.) Considering the highly disturbed condition of the project site, its isolation from extant kit fox populations, and its marginal to poor suitability as foraging or denning habitat, it is unlikely any kit fox have taken up residence within the Daylight Legacy Solar site, although an errant individual may move through the site from time to time.

In summary, the Daylight Legacy Solar Project site and gen-tie corridor may at most be used on rare occasions by dispersing kit foxes, which are highly unlikely to take up residence at the project site or gen-tie corridor.

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 and agricultural vegetation of the Daylight Legacy Solar Project site for nesting.

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 nearest significant riparian corridor that likely facilitates regional movement of wildlife is the Kings River located 4 miles to the east of the Daylight Legacy Solar Project site and gen-tie corridor.

The canals and ditches within and adjacent to the Daylight Legacy Solar Project site and gen-tie corridor can function as movement corridors for the regular home range or dispersal movements of native wildlife, including special status species.

REGULATORY CONTEXT

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/or the California Regional Water Quality Control Board (RWQCB). The USACE regulates the filling or grading of jurisdictional waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. The nearest known water of the U.S. is the Kings River, which is approximately 4 miles east of the project site at its nearest point, where the river is 30 feet lower in elevation than the lowest point on the project site.

The on-site agricultural canals historically conveyed irrigation water, and ditches were constructed to drain the irrigated fields on the project site. All of the canals and ditches on and adjacent to the project site are no longer used to convey irrigation or drainage water since the transition to drip irrigation over the past 20 years. The canal segment running along 26th Avenue between Laurel Avenue and Lincoln Avenue is used to store pumped groundwater for use by tanker trucks for dust suppression during the ongoing construction of the Solar Blue and Castanea (Chestnut) Solar projects to the east of the project site. The other canals and ditches on and adjacent to the project site are dry. Based on a review of available aerial imagery, the onsite canals and ditches do not replace or relocate historical waters of the U.S., nor do they appear to convey water that would otherwise be considered waters of the U.S. Additionally, these canals do not receive water from the Kings River, which is approximately 30 feet lower elevation than the Daylight Legacy Solar Project site at its nearest point. Therefore, onsite canals and ditches would not to be considered waters of the U.S., and thus are unlikely to fall under the jurisdiction of the USACE.

The canals of the Daylight Legacy Solar Project site may be claimed as jurisdictional by the RWQCB under the broader definition of "Waters of State" under the Porter-Cologne Water Quality Control Act which encompasses any surface or groundwater within the boundaries of the State. Therefore, to the extent that water is present in the canals and ditches on the project site, these features would likely be subject to the jurisdiction of the RWQCB.

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 humanmade canals and ditches within the Daylight Legacy Solar Project site and gen-tie corridor.

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

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 various types of riparian forest, such as those found along the remaining natural channel of the Kings River to the northeast. 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 Daylight Legacy 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 in the immediate vicinity of the Daylight Legacy Solar Project site, as discussed above. 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 Daylight Legacy 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.

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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 Daylight Legacy Solar Project and Gen-Tie Line 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 raptors and migratory bird species, 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 5.0 miles of the Daylight Legacy Solar project site over the past 48 years. While the lands in the project area do not provide suitable forage and denning habitat for kit foxes, there is a small potential that kit fox may occasionally traverse the site vicinity while dispersing to another location. The Daylight Legacy Solar Project and Gen-Tie Line are 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 as their occurrence on or near the Daylight Legacy Solar Project site is expected to be rare.

Although the Daylight Legacy Solar Project site and gen-tie corridor do 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 Daylight Legacy Solar Project site or gen-tie corridor 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 Daylight Legacy 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 and CDFW 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 Daylight Legacy 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. If USFWS cannot be contacted, the following minimum distances must be adhered to:*

    Potential den: 50 Feet
    Atypical den: 50 feet
    Known den: 100 feet
    Natal/pupping den (occupied and unoccupied): Service must be contacted

    Additionally, placement of 4-5 flagged stakes 50 feet from the entrance of potential and atypical dens shall be placed to identify the den location and the exclusion zone must be observed.

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 Daylight Legacy Solar project.*

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 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, and shall be implemented.*

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 Daylight Legacy 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.*

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, prairie falcon, peregrine falcon, and red-tailed hawk are known to forage in the project area. Additionally, the Daylight Legacy Solar Project vicinity provides nesting habitat for a number of migratory bird species, including, but not limited to, the snowy plover, black-necked stilt, great-horned owl, common raven, loggerhead shrike, house finch, Brewer's blackbird, and tricolored blackbird. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The canal/ditch habitat, 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) and would be represent a significant impact.

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 (CNDDB). 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

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

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 Daylight Legacy 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, 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 reasons to do so.*

d. *Tailgate Training for Workers. All construction and operations workers on the Daylight Legacy 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.*

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 Daylight Legacy Solar project site, the poles shall be capped immediately after installation to prevent entrapment of birds.*

Burrowing Owl

Nesting Habitat

The Daylight Legacy Solar Project site provides potentially suitable nesting/denning habitat for burrowing owls in the form of California ground squirrel burrows along the edges of the agricultural fields, and in and along the canals and ditches. The Daylight Legacy Solar Project site and gen-tie

corridor also provide foraging habitat within the agricultural fields. No burrowing owls were observed on the project site during LOA's 2023 surveys; however, previous surveys in the vicinity identified breeding burrowing owls along canals and identified a large number of overwintering burrowing owls on adjacent lands. Since the Daylight Legacy Solar Project and Gen-Tie Line would not involve disturbance to the canals and ditches, the potential nesting habitat associated with these features would be avoided. For any burrowing owls occurring elsewhere within the project site, both breeding and foraging habitat could be lost; however, there is abundant suitable breeding and foraging habitat on agricultural lands to the northwest, west, and southwest of the project site, which lands are not planned for solar or other development in the foreseeable future by either Kings or Fresno County.

These small raptors are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. Should burrowing owls inhabit the site prior to ground disturbance, construction activities associated with the Daylight Legacy Solar Project and Gen-Tie Line may also 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 burrowing owls 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 Daylight Legacy 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 250 feet around each active burrow. 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 Daylight Legacy Solar Project site or in the vicinity. The nearest previously observed nests are located more than five miles from the Daylight Legacy Solar Project site. While there are no suitable nesting trees on the project site itself, there are marginally suitable nesting trees at the Shannon Ranch complex located across Avenal Cutoff Road to the northwest of the project site. Should a Swainson's hawk nest be established close enough to the project site for construction activities to impact the nest, there is a chance construction within the vicinity of an active nest could adversely affect nesting success or result in mortality of individual birds, which would be considered a significant impact under CEQA. Therefore, the potential impact to nesting habitat for Swainson's hawk due to construction of the Daylight Legacy Solar Project and Gen-Tie Line would represent *a potentially significant impact*.

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 Daylight Legacy Solar Project:*

a. Pre-Construction Surveys. During the nesting season prior to the construction on the Daylight Legacy Solar Project, preconstruction surveys shall be conducted within a half-mile of a potential nest tree located within a half-mile of the project site 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 are known to forage in the vicinity of the Daylight Legacy Solar Project site, but given the regional abundance of foraging habitat, the loss of foraging habitat resulting from the Daylight Legacy Solar Project and Gen-Tie Line would represent a *less-than-significant* impact to foraging habitat for Swainson's hawk.

Cumulative Impacts to Swainson's Hawk Foraging Habitat

As mentioned, Swainson's hawks are known to forage in the vicinity of the Daylight Legacy Solar Project site. As part of its biological assessment for the Program EIR on the Westlands Solar Park Master Plan and Gen-Tie Corridors Plan, conducted in 2017, LOA completed a comprehensive analysis of potential impacts to Swainson's hawk foraging habitat associated with development of the WSP Master Plan area and all other approved, pending, and completed projects within a 10-mile radius of the WSP plan area. The analysis identified all known Swainson's hawk nests that were previously observed during surveys by LOA or others. In 2018 and 2019, LOA biologists conducted follow-up surveys to identify currently active nests, and in 2022 updated their detailed 2017 analysis of foraging habitat. In 2023, LOA biologists also reviewed and updated their detailed 2022 analysis of foraging habitat within a 10-mile radius of the WSP plan area and concluded that abundant habitat would remain after full development of the WSP plan area, as well as all other cumulative projects (including projects proposed since 2022) within this 10-mile radius, and that this remaining habitat area would be more than sufficient to support all of the known Swainson's hawk nests within this radius, with surplus capacity to support additional nesting pairs. Therefore, the cumulative impact to the Swainson's hawk foraging in the study area was determined to be *less than significant*. The full analysis is contained in Appendix A of LOA's biological report, which is contained in Appendix B of this document, and is summarized below.

American Badgers

Given the observations of American badgers, a California Species of Special Concern, on nearby lands with similar habitats to those of the Daylight Legacy Solar Project site and gen-tie corridor, the potential exists that the American badger may reside within the project site or take up residence on the site prior to construction. No badgers or badger burrows were observed in the area during any of the biological surveys of the project site conducted from 2011 through 2023. Potential badger habitat was found on the Daylight Legacy Solar Project site in the form of agricultural 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.

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 Daylight Legacy 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 to be present 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

Three special status vascular plant species are known to occur in the vicinity of the Daylight Legacy Solar Project site: California jewel-flower, Kern mallow, and San Joaquin woollythreads. Because of the many decades of agricultural disturbance, habitat for these plant species is absent from the project site and vicinity. 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 41 special status animal species potentially occurring in the region, 27 species would be absent or unlikely to occur within the Daylight Legacy Solar Project site or gen-tie corridor due to unsuitable habitat conditions. These include the vernal pool fairy shrimp, valley elderberry longhorn beetle, California tiger salamander, California red-legged frog, western spadefoot, western pond turtle, Temblor legless lizard, coast horned lizard, blunt-nosed leopard lizard, giant garter snake, California glossy snake, San Joaquin whipsnake, American white pelican, black swift, Vaux's swift, western yellow-billed cuckoo, Buena Vista ornate shrew, Nelson's antelope squirrel, giant kangaroo rat, Fresno kangaroo rat, Tipton kangaroo rat, short-nosed kangaroo rat, Tulare grasshopper mouse, American badger, San Joaquin kit fox, and ringtail. Construction of the Daylight Legacy Solar Project and Gen-Tie Line would have no impact with regard to loss of habitat for these species because there is little or no likelihood that they are present. However, there is a small potential for the project to impact individual errant American badgers or San Joaquin kit foxes; therefore, to be prudent, measures have been included above for potential impacts to individuals of these species.

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

There are 14 species that may occasionally utilize the Daylight Legacy Solar Project site and gen-tie corridor for foraging. These include: western snowy plover, mountain plover, white-faced ibis, Swainson's hawk, northern harrier, white-tailed kite, burrowing owl, long-eared owl, loggerhead shrike, yellow-headed blackbird, tricolored blackbird, Townsends's big-eared bat, pallid bat, and California mastiff bat. LOA's biologists determined that the Daylight Legacy Solar Project site and gen-tie corridor 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 alongside the Daylight Legacy Solar Project site and gen-tie corridor likely do not meet the requirements of the USACE which would qualify them as a jurisdictional wetland. These features would not be subject to the jurisdiction of CDFW, but may be subject to the jurisdiction of the RWQCB as discussed in item "c)" below. The construction of the Daylight Legacy Solar Project is not planned or expected to encroach upon or physically alter any of these features. The agricultural lands that occupy the Daylight Legacy 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 considered to be absent from the project site, construction of the Daylight Legacy Solar Project and Gen-Tie Line 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, on-site waters, as may be contained in irrigation canals and ditches within and along the Daylight Legacy Solar Project site and gen-tie corridor, appear not to meet the jurisdictional requirements of the USACE as Waters of the United States. However, canals and ditches that regularly contain water would be considered Waters of the State. Such waters would be subject to the jurisdiction of the Regional Water Quality Control Board. The construction of the Daylight Legacy Solar Project and Gen-Tie Line is not planned or expected to encroach upon or physically alter any of these features. Because the project would avoid potential Waters of the U.S. and Waters of the State, as well as any associated wetlands or riparian habitat, potential project impacts would be *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 canal channels and ditches on and adjacent to the Daylight Legacy Solar Project site and gen-tie corridor 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 canal system has greater value when placed in a regional context. Since the development of the Daylight Legacy Solar Project and Gen-Tie Line would not affect existing canals and ditches, it is expected that wildlife that currently uses the canals for movement will continue to use the canal system to move through the area after the Daylight Legacy Solar Project and Gen-Tie Line are completed.

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 Daylight Legacy Solar Project site and gen-tie corridor for movement are expected to continue to do so after project completion, given that wildlife friendly fencing will be installed around the Daylight Legacy Solar Project and considering that the canal and ditch system will be retained within the solar facility, thus allowing for wildlife movement through the site unimpeded. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would result in a *less-than-significant impact* on regional or local wildlife movements.

With respect to native wildlife nursery sites, to the extent that the currently dry canals and ditches on the project site and gen-tie corridor could contain surface water in the future, aquatic habitat associated with these features could provide nursery sites for native wildlife. Since these features would be avoided by the Daylight Legacy Solar Project and Gen-Tie Line, 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 projection through completion of this environmental impact review pursuant to CEQA, including project incorporation of mitigations recommended by qualified biologists and the resource agencies. Thus the Daylight Legacy Solar Project and Gen-Tie Line would be consistent with the relevant General Plan goals and polices 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 Daylight Legacy Solar Project site and gen-tie corridor include no native 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 Daylight Legacy Solar Project and Gen-Tie Line 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 not cover construction of Daylight Legacy Solar Project or the Gen-Tie Line, the latter of which would be privately constructed and not owned or operated by PG&E. 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 the 2002, 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 Daylight Legacy Solar Project and Gen-Tie Line would have *no impact* in terms of potential conflict with the "Recovery Plan."

The Daylight Legacy Solar Project site and gen-tie corridor are 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 Daylight Legacy Solar Project and Gen-Tie Line 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. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843

Estep 2012 — Estep Environmental Consulting. 2012. *The Distribution and Abundance of Nesting Swainson's Hawks in the Vicinity of the Proposed RE Mustang LLC, RE Orion LLC, and RE Kent South LLC Solar Generating Facilities*. February. Contained (at page 463) in https://www.countyofkings.com/home/showdocument?id=16804

Estep 2017 — Estep Environmental Consulting. 2017. *The Distribution and Abundance of Nesting Swainson's Hawks in the Vicinity of the Proposed American Kings Solar Project Site*. November. Contained (at page 260) in https://www.countyofkings.com/home/showdocument?id=19414

J&S 2006 — Jones & Stokes (J&S). 2006. *Final PG&E San Joaquin Valley Operation & Maintenance Habitat Conservation Plan*. December. https://ecos.fws.gov/docs/plan_documents/thcp/thcp_838.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

LOA 2023 — Live Oak Associates (LOA). 2023. *Daylight Legacy Solar Project and Gen-Tie Line – Biological Assessment*. November. [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 http://esrp.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=cover.html

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. https://www.fws.gov/sites/default/files/documents/survey-protocols-for-the-san-joaquin-kit-fox.pdf

WWD 2017c — Westlands Water District (WWD). 2017. *Draft Program Environmental Impact Report – Westlands Solar Park Master Plan s Plan*. October. https://cs.westlandswater.org/resources/resources_files/misc/Environmental_Docs/201710/Vol1.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?	☐	■	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	■	☐	☐

The evaluation in this section is based on the cultural resources report prepared by Basin Research Associates in November 2023. 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 cultural resources report by Basin Research Associates covered the Daylight Legacy Solar Project site as well as the planned and alternative gen-tie corridors. In the report and in this section, the terms "project" and "project site" refer to the solar project site and the planned and alternative gen-tie corridors.

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 concerning resources listed on the *Sacred Lands Inventory*. The NAHC record search was negative for Native American resources in the immediate project area, and seven tribes or knowledgeable individuals were recommended that could provide additional information. Information outreach letters or emails were sent to the three Native American groups. Two responses were received, one from the Santa Rosa Rancheria Tachi Yokut Tribe and the other from the Wuksache Indian Tribe/Eshom Valley Band. Both tribes expressed concern about the cultural sensitivity of the area. The nearest federally recognized Indian tribe, Santa Rosa Rancheria Tachi Yokut Tribe, has previously entered into consultation with Kings County for solar projects in the area. The Tribe has provided recommended mitigation measures for cultural resources, which have been incorporated into this Initial Study/MND. Other Native American groups have generally deferred to the Tachi Yokut Tribe due to their proximity to the project area.

Basin Research Associates has conducted several archaeological field reviews within the Westlands Solar Park Master Plan Area, which includes the project site and surrounds the project site on three sides, from 2009 to 2022, and no evidence of prehistoric or historically significant cultural resources was observed during the field reviews, and none have been formally recorded within the project site or gen-tie alignment. Basin Research Associates concluded that the project site has a low to moderate sensitivity for surface resources with sensitivity increasing toward the east approaching the former shoreline of Tulare Lake which generally corresponds to the current alignment of SR-41.

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 *Waiu*, one of eight in Tachi territory, was located south of Lemoore along the west side of Mussel Slough where the present rancheria of the Santa Rosa Indian Community is located. The location of the Santa Rosa Indian Community of the Santa Rosa Rancheria, California (a.k.a. Santa Rosa Rancheria Tachi Tribe) conforms to the former site of the *Tachi* village of *Waiu.* The community, a federally-recognized Indian tribe, is located approximately 9 miles east/northeast of the project site between Jersey and Kent Avenues, west of 17th Avenue. The "Santa Rosa Rancheria" is a designated State of California Ethnic Site.

Prehistoric Archaeology

The literature search by Basin Research found that there are no prehistoric resources on the project site or within the vicinity which are eligible for listing on either the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). Two isolated prehistoric finds ("isolates"), which are not considered significant prehistoric resources, have been observed in the project vicinity, as follows:

> ***DL-I-01*** – This isolated prehistoric find is described as a single basalt interior flake, or alternatively as a black rhyolite tertiary/interior flake. The isolated find was observed on unimproved Madison Avenue approximately 0.8 mile east of the eastern project boundary on the adjacent Cherry Solar Project site.
>
> ***P-16-000354*** – This prehistoric isolate is a green Franciscan chert core fragment which was observed near the northern terminus of the proposed gen-tie line extending to the Mustang Switching Station.

In addition, several prehistoric resources have been recorded at locations from 3.0 to 7.0 miles southeast of the Daylight Legacy Solar Project site and gen-tie corridor. These resources are generally located along the western margins of the former Tulare Lake. These resources include four prehistoric sites (three of which included Native American remains), one combined prehistoric/historic-era sites, and 16 prehistoric isolates. None of these sites is listed on the State Office of Historic Preservation's *Archaeological Determinations of Eligibility* for Kings County.

No other prehistoric or combined prehistoric/historic-era sites or isolates have been recorded in the vicinity of the Daylight Legacy Solar Project site or gen-tie corridor. 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 Daylight Legacy Solar project site or gen-tie corridor.

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 Daylight Legacy Solar Project site and gen-tie corridor.

Historic-Era Resources

The literature search by Basin Research found that there are no historic-era resources on the Daylight Legacy Solar Project site or vicinity. Several historic-era structural features occur in the project vicinity. These include former irrigation canals and an associated reservoir as well as electrical transmission lines. None of these features is considered significant under any of the criteria of the National Register of Historic Places or the California Register of Historical 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 Daylight Legacy Solar Project site or gen-tie corridor.

No local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified within or immediately adjacent to the Daylight Legacy Solar Project site or gen-tie corridor. 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 Daylight Legacy Solar project site or gen-tie corridor.

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 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 resource, 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 Daylight Legacy 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 Daylight Legacy Solar Project site or the gen-tie corridor or their 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. The Daylight Legacy Solar Project site (including the planned and alternative gen-tie corridors) include no historic properties determined to be eligible or potentially eligible for inclusion on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). According to the cultural resources report prepared by Basin Research Associates, there is a very low to low-moderate 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.

Construction activity 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 of the Daylight Legacy Solar Project and Gen-Tie Line:*

a. *Provide Tribal Representatives with Results of Archaeological Investigations: Prior to the issuance of the first building permit for the project, the project proponents shall provide the Santa Rosa Rancheria Tachi Yokut Tribe with the results of the archaeological record search, archaeological survey, and Sacred Lands File search through the Native American Heritage Commission.*

b. *Curation Agreement: Prior to the issuance of the first building permit for the project, a Curation Agreement, as approved by the Santa Rosa Rancheria Tachi Yokut Tribe, shall be in place.*

c. *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.*

d. *Pre-Construction and Pre-Decommissioning Briefings. The project proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction and pre-decommissioning Cultural Sensitivity Training to construction staff 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.*

e. *Stop Work Near any Discovered Cultural Resources. The project proponent shall retain a professional archaeologist on an "on-call" basis during ground disturbing construction or decommissioning for the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. Contact information for the on-call archaeologist shall be provided to the Community Development Agency prior to the issuance of building permits. 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.*

f. *Mitigation for Discovered Cultural Resources. If the professional archaeologist determines that any cultural resources exposed during construction or decommissioning constitute a historical resource and/or unique archaeological resource, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommended mitigation measures to mitigate the impact to a less-than-significant level. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery, among other options. Treatment of any significant cultural resources shall be undertaken with the approval of the Kings County CDA. 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. The resources shall be photo-documented and collected by the archaeologist for submittal to the Santa Rosa Rancheria's Cultural and Historical Preservation Department. The archaeologist*

shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources, and which confirms that the treatment of the resources is in accordance with the Curation Agreement. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

g. *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.*

h. *Disposition of Cultural Resources. Upon coordination with the Kings County Community Development Agency, any prehistoric 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 Daylight Legacy Solar Project sites, and the planned and alternative gen-tie corridors, include no known prehistoric archaeological resources determined eligible or potentially eligible for inclusion on the National Register of Historic Places or the California Register of Historical Resources.

According to the cultural resources report prepared by Basin Research Associates, there is a very low to low-moderate potential for the discovery of significant subsurface cultural materials within the Daylight Legacy Solar Project site and gen-tie corridor, 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 cultural resources would be reduced to a *less-than-significant* level through the implementation of Mitigation Measure CR-1 above.

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. The nearest recorded human remains were found at four sites along the former Tulare Lake shoreline, with recorded burials found 4.5 miles northeast of the Daylight Legacy Solar Project site and between 3 and 7 miles southeast. Basin Research concluded that there is a very low probability that human remains could be exposed at the project site; however, it is possible that human remains could be buried within the Daylight Legacy Solar Project site or gen-tie corridor.

Subsurface excavation for the Daylight Legacy Solar Project and Gen-Tie Line 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 and decommissioning of the Daylight Legacy Solar Project and Gen-Tie Line:*

a. *Burial Treatment Plan: Prior to the issuance of the first building permit for the project, The project proponent and the Santa Rosa Rancheria Tachi Yokut Tribe, 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 Burial Treatment Plan shall address the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.*

b. *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 within 25 feet of the discovery, the Kings County Coroner shall be notified immediately and the resource shall be protected in compliance with applicable state and federal laws. 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) pursuant to Public Resources Code Section 5097.98. The project proponent and MLD, with the assistance of the archaeologist, shall make all reasonable efforts to ensure the treatment of human remains and associated or unassociated funerary objects with appropriate dignity, in accordance with the agreed upon Burial Treatment Plan (CEQA Guidelines Sec. 15064.5(d)). 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."*

c. *Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, the Santa Rosa Rancheria Tachi Yokut Tribe, the Kings County Community Development Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center.*

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[Cultural Resources report is kept administratively confidential by Kings County Community Development Agency per Government Code Section 6254, subdivision (r) and Section 6452.10.]

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4.6. ENERGY

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	■

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 overall energy consumption, particularly from non-renewable sources, also reduce GHG emissions. 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.

In 2022, renewable energy sources, including biomass, geothermal, small-scale hydro, solar, and wind, accounted for an estimated 36 percent of California's power mix, with solar generation accounting for 47.5 percent of the total renewable generation and 17 percent of the State's power mix (CEC 2023). In 2021, PG&E's power mix included 50 percent from renewable sources, with solar accounting for 54 percent of the total renewable generation and 27 percent of the utility's power mix (PG&E 2023).

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 Daylight Legacy 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 and operational phases of the Daylight Legacy Solar Project and Gen-Tie Line.

Construction

The construction of the Daylight Legacy Solar Project and Gen-Tie Line 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 2023).

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 CO_2 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
Estimated PROJECT ENERGY CONSUMPTION AND PRODUCTION

Project Phase	Consumption			Production		Consumption as % of Production
	MT CO_2e	Fuel Equivalent[1] (gallons)	MBtu Equivalent[2]	MWh/yr	MBtu Equivalent[3]	
Construction (total)	2,612	2,570,992	353,254			18.5%
Operation (annual)	*201*	*197,844*	*27,184*	609,000[4]	1,913,478	1.4%
Operation (40 years)	8,040	7,913,760	1,087,351			56.8%
Decommissioning (total)	2,612	2,570,992	353,254			18.5%
Project Lifetime (construction, operation, decommissioning,)	13,264	13,055,744	1,793,869	24,360,00	83,116,320	2.2%

Conversion Factors
1. GHG to Fuel: 10.16 $kgCO_2e$/gal diesel = 0.9843 gal/$kgCO_2e$ X 1,000 kg/MT = 984.3 gal/MT CO_2e
2. Fuel to Energy: 137,381 Btu/gal / 1,000 Btu/MBtu = 0.1374 MBtu/gal
3. Energy to Electricity: 3,412 Btu/kWh / 1,000 Btu/MWh / 1,000,000 Btu/MBtu = 3.412 MBtu/MWh
4. Based on Mustang Solar Facility 2021 generation for PV facilities of 2,030 MWh/MW/yr (CEC 2023).

Sources: Illingworth & Rodkin 2023; US EIA 2022a; US EIA 2022b.

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 Daylight Legacy Solar Project and Gen-Tie Line is estimated to be approximately 2.57 million 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 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 2022b). 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 18.5 percent of one year's electricity production at the Daylight Legacy Solar Project. As also shown, the total lifetime energy use of the Daylight Legacy Solar Project (including construction, decommissioning, and 40 years of operation) is equivalent to approximately 2.2 percent of total energy production over the project's useful life. Thus the overall energy efficiency of the Daylight Legacy Solar Project would be approximately 97.8 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 valid comparison, the 1.4 percent annual energy input vs. output for the solar facility would be 38 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 Daylight Legacy Solar Project and Gen-Tie Line 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.

Operation

The Daylight Legacy Solar Project would be operationally non-intensive since it would be operated by a small staff of about 10 workers per day on average, who would perform inspections, maintenance and repairs, as well as panel washing. 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 light. Operation of the gen-tie line would involve minimal energy consumption from vehicular travel for occasional inspection and maintenance activities.

The primary purpose of the Daylight Legacy 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 1.4 percent of annual energy production at the Daylight Legacy Solar Project. In other words, the operating energy efficiency of the solar facility would be about 98.6 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. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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 2022 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 Daylight Legacy Solar Project will help increase the proportion of renewables in the statewide energy portfolio, 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 Daylight Legacy Solar Project and Gen-Tie Line would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, thus would have *no impact* in this regard.

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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.	☐	☐	☐	■
ii) Strong seismic ground shaking?	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv) Landslides?	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect risks to life or property?	☐	■	☐	☐
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?	☐	☐	■	☐
f) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?	☐	■	☐	☐

Geologic Setting

Site Geology

The Daylight Legacy 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 and 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 Daylight Legacy Solar Project site (CGS 2014b). However, there are several active faults in the Coast Ranges 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 35 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 6.0 in August 1985, whose epicenter was located four miles from the Kings County border north of Avenal, and 20 miles west of the project site. It was preceded by the 1982 New Idria earthquake (M 4.8), approximately 30 miles west/northwest of the project site, and the May 1983 Coalinga earthquake (M 6.5), approximately 25 miles west of the project site, and the June-July 1983 Nunez earthquakes (M 6.0), occurring in the 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 27 miles west of the project site at its nearest point. All four of these earthquakes produced low level ground shaking and low local magnitude in Kings County (Kings County 2010e; Kings County OES 2012).

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. These geomorphological processes resulted in the formation of two distinct landform types in the western San Joaquin Valley, including: 1) the upper and middle alluvial fans and fan terrace areas in the higher westerly elevations; and 2) the lower alluvial fans or fan skirts, interfan areas, and basin floors located in the lower lying eastern areas. The project site is located on the basin floor area which is characterized by fine-textured clayey soils with low permeability and slow groundwater movement. The upper clay layers combined with the slow draining soils result in a high or "perched" groundwater table that is typically within 10 to 15 feet of the ground surface throughout the project site (WWD 2017a, 2017b).

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 NRCS Soil Survey of Kings County, the soils on the Daylight Legacy Solar Project site consist largely of Lethent clay loam (75% of site), with Calflax clay loam, saline-sodic (24%) in the northwest portion of the site, and a small area of Twisselman silty clay, saline-alkali (<1%) in the southwest corner of the site. The soils in the planned gen-tie corridor consist of Lethent clay loam (80%) and Calflax clay loam (20%), and the soils in the alternative gen-tie corridor consist entirely of Lethent clay loam. All of the soils on the project site and gen-tie corridors have very similar characteristics and are described as saline-alkali soils, with very slow permeability, very slow runoff, and very high shrink-swell (expansion) potential. The saline-alkali condition of the 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 past. Significant paleontological resources may include vertebrate fossils and their associated taphonomic (fossilization) and environmental indicators; invertebrate fossils; and/or plant fossils. No vertebrate fossil localities have been recorded on the Daylight Legacy Solar Project site or in the vicinity.

The surface soils of the Daylight Legacy Solar Project site and gen-tie corridor are underlain by alluvium deposited during the Quaternary period (approximately 2.6 million years to present). Quaternary alluvium is further divided into a number of subunits, including Quaternary basin deposits (Qb), consisting of materials deposited by Kings River flows and overbank flood events, which comprise all of the surface materials on the project site. Quaternary basin deposits have a low potential to yield fossils. These Qb surface materials extend approximately 2.0 miles east of site to the boundary of the Quaternary lake deposits (Ql), consisting of materials deposited on the lakebed of former Tulare Lake to the east and southeast (CGS 1965). Quaternary lake deposits are considered to have a high potential to yield paleontological resources (Paleo Solutions 2020).

On a temporal scale, the Quaternary period is divided into two epochs or ages, including the Pleistocene Epoch (about 2.6 million to 11,700 thousand years ago) and the more recent Holocene Epoch (about 11,700 years ago to present). The Pleistocene Epoch is informally termed the Ice Age, and this is the depositional period which yields vertebrate fossils. Within the areas with Quaternary basin deposits (Qb), the Holocene materials at the surface are typically too young to contain fossilized material. Within the Qb deposits, the more sensitive Pleistocene material is typically several feet or more below the surface which is the reason the Qb deposits have a low potential to yield paleontological resources. It is considered unlikely that fossils are present within Qb deposits at depths shallower than 5 feet below the ground surface (Paleo Solutions 2020).

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 Zones that are mapped in the project vicinity include the San Andreas Fault Zone located approximately 35 miles southwest of the project site at its nearest point, and Nunez Fault Zone located approximately 27 miles west of the project site.

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 Daylight Legacy Solar Project site.

California Building Code

The 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 purpose of the CBC is to regulate building design and construction and is separate from related codes such as the electrical code, plumbing code, mechanical code, fire code, energy code, etc. Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses mitigation measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures.

It is noted that while the significance criteria in Appendix G of the CEQA Guidelines refers to 1994 UBC Table 18-1-B with regard to the identification of expansive soils, the updated 2019 and 2022 editions of the CBC no longer cite this table. Instead, CBC Section 1803.5.3 stipulates that building officials are to require specific soil tests to determine if soils are expansive. In addition, CBC Section 1808.6 contains design criteria for expansive soils, and includes provisions for mitigating the effects of expansive soils, including slab-on-grade foundations, removal of expansive soil, and soil stabilization techniques.

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 Daylight Legacy 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

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 Daylight Legacy Solar Project site and gen-tie corridor are 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 Daylight Legacy Solar Project relative to surface rupture of an earthquake fault.

ii) Strong seismic ground shaking?

Less-than-Significant Impact. The project is located in one of the more seismically active regions of California, with several major faults within a 50-mile radius capable of generating maximum credible earthquakes with magnitudes of 6.5 or greater. At the Daylight Legacy Solar Project site and gen-tie corridor, the intensity of ground shaking (or Peak Ground Acceleration – PGA) during an earthquake is estimated to be 0.547g (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 Coastal Ranges 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 Daylight Legacy Solar Project and Gen-Tie Line 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 2014b). All of the soils that cover the project site have high clay content, indicating a low susceptibility to liquefaction. The nearest groundwater within the project site was most recently (April 2017) mapped at 10 to 15 feet below the ground surface (WWD 2017b). Given the clayey soils of the project site, the relatively high groundwater conditions would not be sufficient to induce liquefaction during a seismic event.

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 Daylight Legacy Solar Project and Gen-Tie Line 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 dense clay soils that cover the project site are associated with a low 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 Daylight Legacy Solar Project and Gen-Tie Line 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 2014a). 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). In addition, the "Health and Safety Element" of the *2035 Kings County General Plan* indicates that project area is defined as having a "low" susceptibility to landslides (Kings County 2010e). The nearly level terrain of the project area has a very low potential for landslides. As such, the Daylight Legacy Solar Project and Gen-Tie Line would be subject to *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) result 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 prescribed 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 and gen-tie corridor will be specified in the Storm Water Pollution Prevention Plans (SWPPP), as required for all projects over 1 acre in size by the State Water Resources Control Board's Construction Stormwater General Permit. The SWPPPs for the project and gen-tie line 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; and soil stabilization such as mulching or revegetation once activities in an area are complete or suspended. Specific BMPs for the Daylight Legacy Solar Project and Gen-Tie Line will be determined during the final engineering design stages for the project. The project and gen-tie SWPPPs 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 Daylight Legacy Solar Project and Gen-Tie Line 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 and gen-tie corridor are 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 canals and ditches on the project site. However, since these canals and ditches have not been used to convey or store water for 10 years or more, the channels have become vegetated which provides slope stability. Additionally, the clay soils of the project area are not susceptible to liquefaction, so the similarly stiff clay soils along the open slope faces of the former irrigation canals and ditches would likewise not be subject to lateral spreading resulting from liquefied soils. In summary, the potential impact from lateral spreading on or near the Daylight Legacy Solar Project and Gen-Tie Line would be *less than significant*.

Ground subsidence is the gradual settling of the Earth's surface due to the movement of earth below the ground surface. Subsidence is typically caused when overdrafts of a groundwater basin reduce the upward hydraulic pressure that supports the overlying land surface, resulting in consolidation/settlement of the underlying soils. Subsidence has the potential to damage local, state, and federal infrastructure, including reducing the freeboard and flow capacity of the California Aqueduct and irrigation delivery canals and pipelines, as well as causing structural damage to bridges, roads, flood control facilities and other structures. Large areas of the San Joaquin Valley, including the project area, have been subject to subsidence from groundwater use for many of years. Mapping by the U.S. Bureau of Reclamation shows that from the years 1926 to 1970, the land at the project site subsided by more than 10 feet (USBR 2011). From 2007 to 2011, the land at the site subsided between 0.5 and 1.0 feet (CWF 2014). As discussed in Section *4.10. Hydrology and Water Quality*, groundwater pumping in the area can exceed the safe yield of the groundwater basin during drought years when severe curtailment in surface water deliveries from the Central Valley Project necessitates increased pumping of groundwater to make up for reductions in imported supplies. The overpumping of groundwater and resulting subsidence is the cumulative result of water withdrawals from many agricultural wells. As discussed in Section *4.10. Hydrology and Water Quality*, the Daylight Legacy Solar Project would use a small fraction of the groundwater that is typically used for agricultural irrigation over an equivalent area of farmland. Therefore, the project would have a beneficial impact in that it would help alleviate the ongoing cumulative subsidence impacts by causing a reduction in overall groundwater use in the valley. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would have *no adverse 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 with Mitigation Incorporated. 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. All of the soils covering the Daylight Legacy Solar Project site and gen-tie corridor have a high shrink-swell potential (NRCS 1986). Figure HS-4 of the *2035 Kings County General Plan* "Health and Safety Element" also identifies the project site as having expansive soils (Kings County 2010e). As such, there is a potential for damage to project pads and foundations as a result of soils expansion beneath these structures. In order to reduce the potential impacts from soils expansion to less-than-significant levels, the following mitigation measure would be implemented in conjunction with the Daylight Legacy Solar Project.

> ***Mitigation Measure GEO-1: Expansive Soils within Daylight Legacy Solar Project Site and Gen-Tie Line.*** *Prior to the issuance of the first building permit for the Daylight Legacy Solar Project and Gen-Tie Line, the applicant shall retain a qualified registered civil engineer to prepare a preliminary soils report, based on soil borings or excavations, to determine the potential for soils expansion and to prepare recommendations for corrective actions to mitigate potential damage to project structures due to potential soils expansion. The preliminary soils report shall be submitted to Kings County Community Development Agency Building Division for review and approval. The potential damage from soils expansion can be reduced by one or more of several alternative engineering measures, as recommended by the registered civil engineer. These measures could include: overexcavation and replacement with non-expansive soils; extending foundations below the zone of shrink and swell; chemically treating the soils with quicklime or cement; or foundation design measures. The corrective measures specified would become conditions of Building Permit approval and would be subject to inspection and approval by the Kings County Building Official.*

Although the entire project site and gen-tie corridor are mapped as being underlain with expansive soils, there is potential for variability of expansiveness of the soils depending on location within the site. In addition, the project facilities that would be most subject to damage from soils expansion would be equipment pads and foundations. Since the precise locations of the equipment pads will not be determined until the final engineering design stage, the soil borings and/or excavations required to determine the soils expansion characteristics at those sites, as well as the recommendations for appropriate corrective actions to be undertaken at those sites, must be made in conjunction with the final engineering design for the project. The final engineering design for the project will take place after approval of the Conditional Use Permit and prior to issuance of the Building Permits for the project and gen-tie line. With the implementation of Mitigation Measure GEO-1, the potential risks to life or property at the Daylight Legacy Solar Project and Gen-Tie Line due to potential soils expansion 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?

Less-than-Significant Impact. The Daylight Legacy Solar Project will utilize an on-site septic tank and leachfield system for disposal of wastewater associated with the Operations and Maintenance

(O&M) building. The general requirements for septic leachfield design are set forth on the County's "Septic Tank Absorption Map," which classifies the County soils into four broad categories and indicates general specifications for the number of square feet of leaching area required for each 100 gallons of septic tank capacity for each soil category. The septic tank and leachfield for the project is planned to be located at the O&M yard near the eastern site boundary, approximately 0.55 mile north of Laurel Avenue. This area of the project site is mapped as lying within the area where an engineered septic system would be required due to the presence of perched groundwater conditions (Kings County 2001). As such, the septic and leachfield system at the project will be designed and constructed as specified by a qualified registered professional engineer, and subject to approval of the Kings County Building Official, which would ensure effective functioning of the septic and leachfield system and avoid impacts to groundwater quality. Therefore, Daylight Legacy Solar Project would result in *a less-than-significant 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 Setting section above, no vertebrate fossil localities have been recorded on the Daylight Legacy Solar Project site or in the general vicinity.

The entire project site and gen-tie corridor are underlain by Quaternary basin deposits (Qb) which have a surface layer of younger Holocene-era material. This surface material has a low potential for paleontological resources because it is typically too young to contain fossils. The Holocene material is underlain with Pleistocene-era (Ice Age) deposits at depth, and this buried material has the potential for yielding fossils. Thus there is a very low potential for paleontological resources to be encountered within the recent alluvium that characterizes the surface material over the Daylight Legacy Solar Project site and gen-tie corridor because these sediments are too recent to preserve significant fossils. There is a greater potential for paleontological resources to be encountered in the older alluvium that underlies the surface alluvium at depth, although the precise depth to older Pleistocene-era alluvium in the project area is unknown. Thus surface grading and excavations within the areas of Qb deposits are unlikely to uncover significant vertebrate fossil remains. However, there is a potential for encountering fossils if excavations penetrate below 5 feet within the area of Qb deposits. Most excavations for the Daylight Legacy Solar Project will involve trenching for electrical conduit which would involve excavation to a depth 3 to 4 feet; however, deeper utility lines and structure foundations may require excavations deeper than 5 feet, and the augur holes for the gen-tie monopoles would extend to depths of up to 50 feet, which could potentially disturb or destroy important fossils that may be present within the project site.

There are no unique geologic features which could be adversely affected by the Daylight Legacy Solar Project and Gen-Tie Line.

The potential impact to paleontological resources would be reduced to a *less-than-significant* level through implementation of Mitigation Measure GEO-2 below.

> ***Mitigation Measure GEO-2: 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 Daylight Legacy Solar Project and Gen-Tie Line:

a. *If paleontological resources are discovered during excavation activities at the project site or gen-tie corridor, work within 100 feet of the find shall cease, and a qualified professional paleontologist shall be retained to evaluate the significance of the resources and make recommendations regarding the treatment, recovery, curation of the resources, as appropriate. Treatment of any significant paleontological resources shall be undertaken with the approval of the Kings County CDA.*

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4.8. GREENHOUSE GAS EMISSIONS

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

Setting

The accumulation of greenhouses 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 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 (CO_2) as a byproduct of combustion. Other GHGs include methane (CH_4), nitrous oxide (N_2O), 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 CO_2. High GWP gases include: CH_4 (methane) which has a GWP over 25 times greater than CO_2; and N_2O (nitrous oxide) with a GWP which is 298 times greater than CO_2. The application of these ratios for the various greenhouse gases allows all GHG emissions to be converted to CO_2 equivalents (CO_2e), 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 new 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 2009a). 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line would generate greenhouse gas (GHG) emissions through direct consumption of fossil fuels, primarily related to construction, traffic generation, and facility maintenance. The GHG emissions resulting from both project construction and operation were estimated by Illingworth & Rodkin using the CalEEMod model (see Appendix A of this document). The estimated emissions for the Daylight Legacy Solar Project and Gen-Tie Line are presented in Table GHG-1. As shown in the table, annual average

project GHG emissions would be the equivalent of approximately 334 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 a 40-year operating life of the facility and added to operational emissions to yield annual average GHG emissions from solar projects, as shown in Table GHG-1.

TABLE GHG-1

ESTIMATED PROJECT GREENHOUSE GAS EMISSIONS

Project	Construction and Decommissioning Emissions ($MTCO_2e$)[1]			Annual Emissions ($MTCO_2e$)		
	Construction Emissions (Total)	Decommissioning Emissions (Total)[2]	Total Construction/ Decommissioning Emissions	Construction/ Decommissioning (Amortized)[3]	Project Operation	Total Annual Emissions
Daylight Legacy Solar	2,612	2,612	5,224	131	201	334

[1] $MTCO_2e$ = Metric Tons CO_2 Equivalent
[2] Decommissioning emissions would likely be less than construction emissions, but are assumed to be same for purposes of this analysis.
[3] The construction and decommissioning emissions are amortized over the 40-year operational life the Daylight Legacy Solar Project.
Source: Illingworth & Rodkin 2023.

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, a project must be determined to have reduced or mitigated GHG emissions by 29 percent relative to Business-As-Usual conditions. Under the SJVAPC guidance, a project that meets this emissions reduction target is considered to meet GHG emission reduction targets established in CARB's Scoping Plan for AB 32 implementation (SJVAPCD 2009b). 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 specific to the land use type proposed.

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). 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 $MTCO_2e$/yr as the threshold of significance for defining GHG impacts for development projects under CEQA (BAAQMD 2017, SMAQMD 2019). 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 $MTCO_2e$/yr for industrial projects, and 1,150 $MTCO_2e$/yr for residential and commercial 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 2023). Also notable are the early recommendations by the California Air Pollution Control Officers Association (CAPCOA), which suggested a 900 $MTCO_2e$/yr threshold, which represents the most conservative threshold, and the California Air Resources Board (CARB), which recommended a threshold of 7,000 $MTCO_2e$/yr for industrial projects (CAPCOA 2008, CARB 2008). The Daylight Legacy Solar Project and Gen-Tie Line's estimated annual average emissions of 334 $MTCO_2e$/yr would fall well below all of the referenced thresholds adopted and recommended by other agencies and 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 300 MW Daylight Legacy Solar Project would generate approximately 609,000 MWh/yr., which is based on the 2021 generation of 2,030 MWh/MW from the nearby Mustang Solar Facility (CEC 2023). This is equivalent to the average electrical consumption of 93,635 California homes in 2021 (at 6,504 KWh/yr per home)(US EIA 2022a). 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 is currently on par with renewable sources, fossil plants offer 24-hour reliability which solar cannot match. Thus it is expected that in the absence of an 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 Daylight Legacy Solar Project, would result in a net reduction of fossil-based generation, and hence a net reduction in CO_2 emissions, relative to overall CO_2 emissions that would occur without the project.

In order to quantify the net reduction in CO_2 emissions that would be represented by the project, the CO_2 emissions from a fossil plant with the same electrical output was considered for comparison. Because natural gas provides most of the flexible capacity, this analysis uses an avoided emissions displacement factor of approximately 0.373 MT of CO_2 per MWh (822.5 lb per MWh), which is a conservatively low emission factor for efficient, conventional generation using natural gas, combined cycle generators in California (CEC 2019, Table B-22). Based on this emissions factor, a gas-fired plant generating 609,000 MWh/yr (the equivalent of the Daylight Legacy Solar Project) would produce annual GHG emissions of approximately 227,157 $MTCO_2e$/yr. Compared to the Daylight Legacy Solar Project's GHG annual emissions shown in Table GHG-1 (i.e., operational emissions plus amortized construction and decommissioning emissions) of 334 $MTCO_2e$/yr (or

0.00055 $MTCO_2e$/MWh), the annual emissions from gas-fired power plant would be approximately 680 times greater. The Daylight Legacy Solar Project would represent an annual net reduction of 226,823 $MTCO_2e$/yr, or a 99.85 percent net reduction in GHG emissions compared to the natural gas fueled alternative.

In summary, while the Daylight Legacy Solar Project and Gen-Tie Line would result in a relatively low level of GHG emissions during project construction and decommissioning, the near-zero emissions from electrical generation during project operation 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 2035 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. As discussed above, the Daylight Legacy 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 Daylight Legacy Solar Project would advance the implementation of these policies by providing a new source of renewable energy, 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 Daylight Legacy Solar Project and Gen-Tie Line 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 2022 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, and 100 percent by 2045. As a solar photovoltaic generating facility, the Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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.

REFERENCES – GREENHOUSE GAS EMISSIONS

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4.9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	■	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	■
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?	☐	☐	☐	■
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?	☐	☐	■	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	■	☐

The following discussion of hazards and hazardous materials is partially based on the following documents: 1) Phase I Environmental Site Assessment (ESA) prepared on the project site by Moore Twining Associates (MTA) in November 2023; and 2) Phase II ESA (Soil Sampling and Pesticide Analysis) report prepared by MTA in December 2023. The MTA reports are contained in Appendices D-1 and D-2 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.

Based on the recommendations contained in the Phase I ESA, MTA conducted a Phase II ESA which consisted of soil sampling and analysis for organochlorine pesticides (OCPs), chlorine, sulfuric acid, and

lead, and groundwater sampling and testing for OCPs. The results of the Phase I and II investigations are included in the following description of the environmental setting.

Environmental Setting

On-Site Conditions

The Daylight Legacy Solar Project site is an irregularly-shaped property, approximately 2,107 acres in size, located southeast of Avenal Cutoff Road and west of 25th Avenue in Kings County. The entire site consists of agricultural lands planted for row crops and fallow fields. The site includes several unlined irrigation canals and ditches.

There is one abandoned oil/gas well in the western portion of the property. This well ("American Hunter Expl Ltd Well No 1") is mapped by California Geologic Energy Management Division (CalGEM) as being dry and plugged (CalGEM 2023). The well was fully buried per the state standard for oil well abandonment in 1984. Agricultural cultivation has been ongoing over the abandoned well site during the ensuing decades and there is no current indication of this abandoned well at the ground surface.

Four water wells were observed to be present on the site. One of the irrigation wells is located near the western site boundary at the southeast corner of the Manteca Avenue and 28th Avenue alignments. This well complex includes a fertilization/irrigation (fertigation) system including pumps and irrigation tanks, as well as two above-ground storage tanks (ASTs) containing sulfuric acid and chlorine. The remaining three wells, and two ASTs, are located in the central area of the site along the 27th Avenue alignment.

Five pole-mounted transformers are located within and adjacent to the project site. No staining or leaking was observed in the vicinity of the transformers.

Four agricultural water distribution pipelines pass through or adjacent to the project site from west to east, with the buried pipelines running along the section lines at approximately one-mile intervals. These underground pipelines are owned and managed by the Westlands Water District and are part of the District-wide system of lateral pipelines that deliver imported surface water from the California Aqueduct for the purpose of agricultural irrigation. Above-ground features of this system typically include light blue valves and piping protruding from the ground. The WWD water distribution system will provide water for operational use after project completion. The pipelines and their easements will be retained intact and incorporated into the project design. Some onsite segments of the WWD water pipelines are composed of Transite which is an asbestos-containing material. This material poses a potential health hazard if it is disturbed and becomes friable with potential release of airborne fibers. However, the project elements will not encroach upon the exclusive pipeline easements except where doing so is unavoidable such as at crossings for internal driveways and buried conduit. In those instances, construction in the vicinity of the pipelines will be undertaken in strict compliance with WWD design standards and protocols for work that is planned to take place over or under the pipelines.

In the San Joaquin Valley, agricultural lands in active cultivation are typically subject to application of agricultural chemicals including pesticides. In order to determine whether any agricultural chemicals (specifically persistent pesticides) are present in the site soils in concentrations that exceed regulatory thresholds, MTA conducted a program of soil sampling and testing throughout the Daylight Legacy Solar Project site. The analytical results indicated that the soil samples are below regulatory action levels for

organochlorine pesticides (OCPs)(e.g., DDT), and trifluraline (broadleaf herbicide), and heavy metals (e.g., lead). No arsenic concentrations were detected. The soil sampling for the presence of sulfuric acid and chlorine found concentrations to be similar to background levels and are not considered to be a concern (MTA 2023a, 2023b).

Off-Site Conditions

The review of regulatory databases by MTA indicated that there are no known hazardous materials sites in the project vicinity, with the possible exception of a private airstrip located 900 feet west of the project site on the north side of Gale/Lincoln Avenue, which is used as the base for a crop dusting operation. The airstrip is not listed on DTSC's EnviroStor database or on the SWRCB's GeoTracker database of cleanup sites. The listing in the EDR report indicated that 30 gallons or more worth of empty pesticide containers were observed during a 'site screening'. The facility was given a 'low priority preliminary assessment' recommendation, and referred to another agency. No additional information was available. The airstrip is at least 900 feet west and up-gradient from the Daylight Legacy Solar Project site. If repeated or substantial spills of pesticides have occurred at the airstrip, the pesticides could have migrated to the water table and eventually migrated down-gradient to the project site. Given the possibility that contamination may have resulted in subsurface impacts beneath the project site, MTA conducted a soil boring near the western edge of the site (northeast corner of Avenal Cutoff Road and Lincoln Avenue) to sample groundwater which was encountered at 30 feet below grade. The grab groundwater sample collected from the boring did not have any detectable OCPs (MTA 2023a, 2023b).

In conclusion, there is no evidence that the Daylight Legacy Solar Project site or the surrounding lands contain any potential contamination due to disposal, spillage, or leakage of hazardous materials or any other source.

Regulatory Context

Federal

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.

- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.

- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

- 14 CFR 77.13(2)(i) and 14 CFR 77.17 require an applicant to notify the Federal Aviation Administration (FAA) of the construction of structures within 20,000 feet of the nearest point of the nearest runway of an airport with at least one runway longer than 3,200 feet. Aviation Regulation Part 77 - Objects Affecting Navigable Airspace requires that notice be given to the FAA if any kind of proposed construction or alteration is: (1) more than 200 feet in height above

> the ground level at its site, or (2) of a greater height than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from all edges of the runway surface if the runway is more than 3,200 feet in length.

State

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 (EnviroStor and Geotracker, respectively). The project site is not listed by the DTSC and 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.

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

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

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 Daylight Legacy 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

Kings County Fire Code

Chapter 10 of the Kings County Code of Ordinances details the Kings County Fire Code, which is an adoption of the 2019 California Fire Code with some amendments. The purpose of the Kings County Fire Code is to address the public need in the extinguishment of fires, and the preventing, eliminating, or minimizing fire hazard for the safety of life and property in the county.

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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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 Storm Water Pollution Prevention Plans (SWPPPs) for the Daylight Legacy Solar Project and Gen-Tie Line, as required by the State Water Resources Control Board (SWRCB)(for a detailed discussion, see Section *4.10. Hydrology and Water Quality*). Separate SWPPPs would be required for the solar project and the gen-tie line, with separate SWPPPs for each required at the construction and decommissioning phases. The SWPPPs 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 SWPPPs will be prepared by a certified Qualified SWPPP Developer (QSD), who will ensure that the BMPs in the project-specific SWPPPs will fully comply with the requirements of the General Permit. The enforcement of the SWPPPs 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 SWPPPs.

Additionally, the use, storage, transport, and disposal of construction-related hazardous materials and waste would be required to conform to existing 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 the 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, and the compliance with applicable laws and regulations, would ensure that hazardous materials used in project construction 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.

Project Operation

Operation and maintenance of the Daylight Legacy 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 PCSs 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.

The operation of the gen-tie line would receive occasional inspections, maintenance, and minor repairs which would involve minimal use of hazardous materials.

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 existing 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 Daylight Legacy 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. Lithium-ion batteries are subject to electrical failures resulting in potential for overheating, swelling, electrolyte leakage, venting, fires, smoke, and explosions in worst-case scenarios involving thermal runaway. Other environmental hazards include floods and rain entering the batteries. Mechanical hazards include vibration, shock, and impact encountered under transportation conditions. As discussed under ‘Regulatory Setting,’ there are numerous regulations governing the construction and operation of battery energy storage systems. 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 must also 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. Energy storage equipment would comply with UL-9540 (Standard for Safety of Energy Storage Systems and Equipment) and account for the results of UL-9540A (large-scale fire test). Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized hazmat vehicles and equipment along with mandated training for Fire Department personnel.

Herbicides would be used at the Daylight Legacy Solar Project to control noxious weeds and invasive species, in accordance with the Weed Abatement Plan 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)', past agricultural practices on the project site involved the use of environmentally persistent pesticides, although recent soil testing showed that residual concentrations of these "legacy" pesticides in soils at the site are well below hazardous levels (MTA 2023b).

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 operation to *less-than-significant* levels.

Decommissioning

As described in Section *2.2. Project Description*, when the Daylight Legacy 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 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, storage batteries, among other things. Decommissioning of the gen-tie line would involve the dismantling and removal of conductors, insulators, and hardware from the right-of-way. Tower structures would be removed and foundations removed down to at least 5 feet below the ground surface.

During decommissioning of the solar facility and gen-tie line, 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 in conjunction with project decommissioning. 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, the project could include solar modules containing Cadmium-Telluride (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 Daylight Legacy Solar Project and Gen-Tie Line could potentially result in significant hazards to the public and the environment. As previously mentioned, compliance with existing laws and regulations governing the handling, storage, containment, clean-up and disposal of hazardous materials and waste would minimize the risk to the public and the environment. The implementation of Mitigation Measure HAZ-1, as set forth above, would ensure that the potential hazard to the public or the environment from routine transport, use, or disposal of hazardous materials associated with the Daylight Legacy Solar Project and Gen-Tie Line is reduced 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 five conditions associated with the Daylight Legacy 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; 4) exposure to residual agricultural chemicals; and 5) presence of an abandoned oil/gas well on the site. 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 2000)). Although highly unlikely, it is possible that the Daylight Legacy 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 2023).

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 2023b). 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 Daylight Legacy 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 a number of 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 sealed to contain any leaks. 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. Energy storage equipment would comply with UL-9540 (Standard for Safety of Energy Storage Systems and Equipment) and account for the results of UL-9540A (large-scale fire test). Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized hazmat vehicles and equipment along with mandated training for Fire Department personnel. Therefore, the potential hazards 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 (*coccidioidomycosis*), 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 2021). 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 2020). 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* https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ValleyFeverFactSheet.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. Assuming DDT was applied on a 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 49 years between 1974 and 2023.

While there is some 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 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. If they were applied, there is a low likelihood that the soils are contaminated, particularly since there no evidence that mixing of agricultural chemicals occurred on the Daylight Legacy Solar Project site in the past. The project site was part of a much larger agricultural operation, and has not historically been used for mixing or loading of pesticides, which was conducted off the project site. Thus it is highly unlikely that legacy pesticides like DDT would be present on the project site in hazardous concentrations. In order to determine if the soil on the project site contains any significant concentrations of environmentally persistent agricultural chemicals, a program of soil sampling and testing was performed by Moore Twining Associates (MTA) in November 2023. The analytical results showed that the soils are well below regulatory screening levels for organochlorine pesticides, as well as Toxaphene, trifluraline (broadleaf herbicide), and heavy metals (e.g., lead, arsenic). The soil sampling for the presence of sulfuric acid and chlorine found concentrations to be similar to background levels and are not considered to be a concern (MTA 2023a, 2023b).

The Environmental Data Resources (EDR) report prepared for MTA's Phase I ESA identified the small airstrip located 900 feet west of the Daylight Legacy Solar Project site, which is the site of a crop dusting operation that has been present since the 1950s. The listing in the EDR report indicated that 30 gallons or more worth of empty pesticide containers were observed during a 'site screening'. The facility was given a 'low priority preliminary assessment' recommendation, and referred to another agency. No additional information was available. If repeated/substantial spills of pesticides had occurred at the airstrip, the pesticides could have migrated to the water table and eventually migrated down-gradient to the Daylight Legacy Solar Project site. Due to the close proximity of the project site to the airstrip, MTA conducted groundwater sampling and testing near the western site boundary at the intersection of Avenal Cutoff Road and Lincoln Avenue to determine the presence of any contamination in the groundwater. The groundwater sample did not contain any detectable OCPs, indicating that no pesticides had migrated from the airstrip to the groundwater beneath the project site.

The MTA report stated that no further action is necessary with regard to residual agricultural chemicals on the project site (MTA 2023b). Therefore, the potential impact due to exposure to residual agricultural chemicals is *less than significant*.

Recent Use of Agricultural Chemicals

The pesticides which may have been applied at the Daylight Legacy Solar Project site in the recent past consist of non-persistent compounds that degrade rapidly (within a few days or weeks) after application. The longest-lived pesticides include paraquat and glyphosate (Roundup), which have half-lives of approximately 1,000 days (ISU 2022) and 200 days (NPIC 2022). 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 2023, MTA 2023a).

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

5. Abandoned Oil and Gas Well

There is one plugged and abandoned oil/gas well in the western portion of the project site. This well ("American Hunter Exploration Ltd Well No. 1") is mapped by California Geologic Energy Management Division (CalGEM) as being dry hole with no production reported (CalGEM 2023). The well was fully buried per the State standard for oil well abandonment in 1984. The well was plugged by placing cement in the well bore at certain intervals as required by the State and buried by filling the bore hole with drilling mud. The section of pipe in the upper 5 feet of soil was removed and closed with a welded ½-inch steel cap, and then covered with soil. There are no remaining surface features associated with this abandoned well.

For developments proposed in the vicinity of abandoned wells, CalGEM recommends that physical access to the well be maintained in the event re-abandonment becomes necessary in the future. On the CUP site plan for the Daylight Legacy Solar Project (see Figure PD-3c), the abandoned well is provided with a minimum 25-foot radius clear area for equipment operation and maneuvering. The well site is also provided with vehicular access via the internal project driveway system.

In summary, the Daylight Legacy Solar Project has been designed to provide the abandoned oil/gas well on the project site with separation from project solar facilities and with direct physical access for equipment and materials. Therefore, the Daylight Legacy Solar Project would have a *less-than-significant* impact upon the abandoned oil/gas well on the site. In addition, field inspections and soil analyses indicated that there is no residual contamination associated with the on-site oil/gas well. Therefore, potential hazard to project workers from residual contamination from the oil/gas well is *less than significant*.

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 Daylight Legacy Solar Project site or gen-tie corridor. The nearest schools are located in: Stratford (5.7 miles east), NAS Lemoore (4.8 miles northeast), Huron (8 miles northwest), and Kettleman City (10 miles south). The Daylight Legacy Solar Project and Gen-Tie Line 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. The Daylight Legacy Solar Project site and gen-tie corridor do not include a site 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 2023a). There is one site on the Cortese List located on the adjacent lands to the south of the project site, which are part of the approved Cherry Solar Project site (CUP No. 22-05). As described under 'Environmental Setting' above, the site is listed on the State's EnviroStor and Geotracker websites as "Lemoore Auxiliary Field A-4." During World War II, the US Army established seven temporary training airfields in the area which were associated with the former Lemoore Army Airfield – Lemoore Basic Flying School (not to be confused with NAS Lemoore). One of the temporary training airfields was located within Section 31 which is located adjacent to the southern-most boundary of the Daylight Legacy Solar Project site. The EnviroStor listing states that the investigation of the site is "inactive" with no additional information given. MTA's research into the matter indicated that the US Army Corps of Engineers had made a determination of "No Defense Action Indicated" (NDAI) which was agreed to by DTSC. The Central Valley Regional Water Quality Control Board deferred to DTSC's determination and closed its case on the Site on April 11, 2011. Thus there is an apparent inconsistency between the "inactive" listing (instead of "closed") for the site in DTSC's EnviroStor database and DTSC's concurrence with USACE's no action determination.

In order to provide greater clarity as to whether any residual contamination from the former Army airfield may be present on the site, it was decided that soil sampling and testing program would be conducted on the former airfield site. However, there are no records or contemporaneous aerial photography indicating the precise location of the airfield within Section 31. Soon after World War 2 ended, the airfield was removed and returned to farmland so there are now (77 years later) no physical traces to indicate the former location of the "landing mat" within the 622-acre parcel purchased by the Army for the airfield. In the absence of more specific information as to the location of the airfield, it was decided that soils on a 479-acre portion of the former airfield property be sampled and tested for potential contaminants. Accordingly, MTA collected surface and subsurface soil samples from throughout the 479-acre target area for testing. The soil analysis by MTA showed that the soils from the airfield site did not contain concentrations of petroleum hydrocarbons or volatile organic compounds (VOCs) above laboratory testing levels. The conclusion of the sampling and testing program was that there is currently no soil contamination on the adjacent site as a result of the historic use of the property as an airfield (Kings County 2022). Therefore, the former use of the

adjacent property as a temporary Army training airfield would have no impact in terms of potential site contamination.

A comprehensive search of all federal, state, and local database information systems indicated no other listed hazardous materials sites on the project site or vicinity. A review of files for the Daylight Legacy Solar Project site, gen-tie corridor, and adjacent properties at the Kings County Environmental Health Department (KCEHD) and the State Water Resources Control Board (SWRCB) likewise identified no documentation for the project site or adjacent properties (MTA 2023a). Therefore, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project site and gen-tie corridor are 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 municipal airports near Hanford, located 18 miles northeast, and Coalinga, located 18 miles west, and the Harris Ranch airfield, located 16 miles northwest of the project site. The runway at Naval Air Station Lemoore (NASL) is located 6 miles north of the Daylight Legacy Solar Project site and 4.5 miles from the north end of the gen-tie corridor. While the project site is not within an 'airport land use plan,' it is included in the Military Influence Area of NASL, and is within the study area of the NAS Lemoore Joint Land Use Study (JLUS). The JLUS has no jurisdictional effect on the project but includes relevant information regarding potential safety hazards posed by NASL operations upon the project. Daylight Legacy Solar Project site is located 3.7 miles south of the nearest accident potential zone mapped for NASL, and the northern end of gen-tie corridor is 2.2 miles south of the accident potential zone. The northern half of the project site and the gen-tie corridor are within the NASL Height Restriction Zone "G", which is subject to the height restriction of 500 feet above ground level, as regulated by the Federal Aviation Administration (JLUSPC 2011, p. 2-24). The tallest structures within the project would be well within this height limit. For example, the structural elements associated with the on-site substation would be as high as 75 feet; and the communications tower would be up to 125 feet tall. The solar arrays and inverter pads would be as tall as 10 feet, and meteorological stations would be approximately 13 feet high. The monopoles of the associated gen-tie line extending 2.0 miles north of the project site would be up to 180 feet tall. Thus the tallest project features would be well within the 500-foot height limit for physical obstructions.

The height of all of the project structures would also be below the 200 feet height limit above which structures are considered a potential collision hazard under federal law (CFR, Title 14, Aeronautics and Space, Section 77.17 Obstruction Hazards). The FAA requires noticing for a project that includes facilities at heights greater than 200 feet above ground level, or greater than an imaginary surface extending outward and upward from the runway at a 100:1 ratio for 20,000 horizontal feet. The tallest project features would be the telecommunications tower (up to 125 feet tall) and the gen-tie monopoles (up to 180 feet high). At its closest point, the Daylight Legacy Solar Project site is located more than 34,200 feet from the NAS Lemoore runway, and the gen-tie line is located more than 25,600 feet from the runway. The Project would not be required to provide notice to the FAA as all Project elements would be less than 200 feet tall and the nearest project elements would be more

than 20,000 feet from the NASL runway. In addition, the project will comply with all FAA regulations.

Given the proximity of NAS Lemoore to the Daylight Legacy Solar Project site, there is a potential concern with the effect of glare on flight operations originating from the base. All of the solar panels installed at the project will be composed of photovoltaic cells. Solar PV employs glass panels that are designed to maximize absorption and minimize reflection to increase electricity production efficiency. To limit reflection, solar PV panels are constructed of dark, light-absorbing materials, and are given an anti-reflective coating or a textured surface which can reduce reflectivity to less than 4 percent of incoming sunlight (EE Times 2012). When viewed from the air, solar arrays have a consistent dark gray color with little or no reflected light. In comparison, the reflectivity of standard glass is over 20 percent. By contrast, concentrating solar thermal systems, which employ arrays of highly polished mirrors to refocus the radiation on a receiver tube or tower, reflect about 90 percent of the incoming sunlight (FAA 2018).

The NAS Lemoore Joint Land Use Study (JLUS) addresses concerns with aviation hazards from reflection and glare. Solar facilities are mentioned specifically for their potential to produce reflective surfaces, but the JLUS acknowledged that the main concern is with highly reflective mirrors used in concentrating solar thermal facilities. The JLUS states that "if there is no central collection tower, the new solar panels can be made non-reflective and arrays could be installed to not cause any height or reflective issues" (JLUSPC 2011, p. 2-12). PV solar facilities have been installed within military air bases elsewhere the U.S. without adversely affecting flight operations. For example, as of 2017, the U.S. Air Force had solar PV facilities at 10 air bases in the United States, including Vandenberg AFB, Edwards AFB, Los Angeles AFB, and Nellis AFB (AFCEC 2017).

It is noted that a glint and glare study using the Sandia Laboratory's Solar Glare Analysis Tool (SGHAT) was prepared for the nearby Mustang Two Solar Project MND in August 2016. (The Mustang Two project is located one mile east of the Daylight Legacy Solar Project site. The Mustang Two project is situated directly beneath the final approach corridor for incoming military aircraft, while the Daylight Legacy project site is not located directly beneath this approach corridor.) In the analysis, impacts from solar glare were given three ranks, as follows: 1) potential for permanent eye damage; 2) potential for temporary after-image (a lingering image of the glare in the field of view); and 3) low potential for temporary after-image. Results from the analysis indicated that pilots flying over and near the Mustang Two solar facility would experience a low potential for a temporary after-image, and the potential would be limited to early morning from approximately April through September. The low potential for temporary after-image level is generally considered to be safe for pilots (Kings County 2017). The results of this glint and glare analysis are considered to be applicable to the Daylight Legacy Solar Project, which is near but not within the flight approach/departure path. Therefore, it is concluded that the PV solar panels installed at the Daylight Legacy Solar Project site would not produce light or glare that would pose a hazard to flight operations at NAS Lemoore.

With respect to aircraft noise from military overflights, the entire Daylight Legacy Solar Project site is mapped as land subject to noise levels of under 60 dBA CNEL, and the northern 0.9 mile segment of the gen-tie corridor is subject to noise levels between 60 and 65 dBA CNEL, as mapped in the NAS Lemoore Joint Land Use Study (JLUSPC 2011, p. 2-11). Noise levels exceeding 76 dBA CNEL are considered hazardous to health as determined by the US Environmental Protection Agency (US EPA 1974). Aircraft overflights would expose construction workers, who would be on the site temporarily, and the few operations personnel who would staff the completed facility, to worst-case

noise levels of less than 60 dBA CNEL at the solar project site and 65 dBA CNEL in the gen-tie corridor. Thus the project workers would be subject to aircraft noise levels of well below the 76 dBA CNEL threshold. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would not expose workers on the project site to excessive noise levels from flight operations as NAS Lemoore.

Additionally, the employment density at the Daylight Legacy Solar Project would be very low. An average of 10 permanent staff would be on the solar facility site at any given time to conduct visual inspections of equipment, internal roadways, and fencing, and perform maintenance or make repairs as necessary. Up to 20 additional workers could be on-site intermittently if equipment needs to be repaired or replaced and when panel cleaning is in progress. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 entrances 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 processes. Also, the Daylight Legacy Solar Project would not be considered a critical facility to provide essential services during and after a disaster. As such, the Daylight Legacy Solar Project and Gen-Tie Line 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 arterial roadways in the area would serve as secondary routes. In the project vicinity, the primary evacuation routes include SR-41, SR-198, SR-269, and I-5, and the designated secondary routes consist of Avenal Cutoff Road and Laurel Avenue (Kings County 2010e). These nearby State highways and County roads provide several alternative escape routes with relatively low ambient traffic volumes. Laurel Avenue would provide the main escape route for

the project. The Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line are not located within or near a wildland fire hazard area. The Fire Hazard Severity Zone (FHSZ) map for Kings County prepared by the California Department of Forestry and Fire Protection (CAL FIRE) shows the project site as "unzoned" for fire hazard. The nearest areas zoned on the FHSZ map are located in the foothills west of Interstate 5, which are zoned "Moderate Severity Fire Hazard" (CAL FIRE 2020). The Health and Safety Element of the Kings County General Plan includes a map of Potential Fire Hazards which shows approximately 100 acres at the western edge of project site as lying "within 2400 meters [1.5 miles] of a high threat" of fire, likely associated with the nearby Shannon Ranch complex to the west. On the remaining 95 percent of the site, approximately half the lands are mapped as lying "within 2400 meters of a moderate threat" with the remaining half of the project site mapped as being subject to "little or no threat." The entire gen-tie corridor is mapped as being subject to "little or no threat" (Kings County 2010e). The most likely fire threat would be from a potential structure fire at the Shannon Ranch. Any such fire would be suppressed quickly and would be unlikely to spread to the nearby portions of the project site given the separation provided by the intervening Avenal Cutoff Road which would serve as an effective fire break. This separation, along with fire prevention and suppression measures required for the solar project, would reduce the risk of wildland fire at the Daylight Legacy Solar Project and Gen-Tie Line to a *less than significant* level. [See, see Sections *4.15. Public Services* and *4.20. Wildfire* for detailed discussions of fire hazard and protection.]

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4.10. HYDROLOGY AND WATER QUALITY

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

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, passing through the project vicinity approximately 4 miles to the east of the Daylight Legacy Solar Project site. The drainage courses originating in the Coast Ranges to the west dissipate west of the California Aqueduct, approximately 5 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 (WRP 2023).

Several irrigation canals and ditches pass through and alongside the project site. These canals convey and distribute surface water and pumped well water throughout the area. In the past 20 years the site has been installed with drip irrigation systems which are supplied by piped water and no longer utilize canals and ditches. Consequently, the canals and ditches on the site are no longer used and have dried up and become somewhat overgrown.

The Daylight Legacy Solar Project site includes five agricultural wells located in the central and western portions of the site. The well was drilled in 2013 to a depth of 2,250 feet. A well pump test indicated a yield of 3,500 gpm, which is not necessarily indicative of long-term yield.

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. The only impaired waterbody in the project vicinity is the Lower Kings River which runs in a southerly direction approximately 4 miles east of the project site. The listed pollutants for the Lower Kings River include Electrical Conductivity (indicator of salinity) and Toxaphene (organochlorine pesticide banned by EPA in 1990)(SWRCB 2018a).

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 2023b).

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 of a Groundwater Sustainability Plan (GSP). For medium and high priority groundwater basins and subbasins, the preparation of the GSPs is mandatory, with adoption deadlines of 2020 or 2022 depending on the basin's priority. As the primary water purveyor in the Westside Subbasin, the Westlands Water District is the designated Groundwater Management Agency for the subbasin. DWR has designated the Westside Subbasin as a critically overdrafted basin for which a draft GSP was adopted by WWD on January 7, 2020, and approved by DWR on August 4, 2023 (DWR 2023a). The purpose of the GSP is to characterize groundwater conditions in the Westside Subbasin, evaluate and report on conditions of overdraft, establish sustainability goals and sustainability management criteria, and describe projects and management actions the GSA intends to implement to achieve sustainability by 2040.

Westlands Water District

The Westlands Water District provides agricultural irrigation water to growers and municipal and industrial users from surface water deliveries provided by the U.S. Bureau of Reclamation from the Central Valley Project (CVP) facilities that convey captured Sierra snowmelt to the west side of the San Joaquin Valley. In an ongoing effort to adapt to surface supply shortages, and to reduce groundwater overpumping, the District provides funding for education and technology, enabling growers to effectively utilize surface water allotments through efficiencies and conservation. The District also monitors the water quality and quantity of pumped groundwater as part of its Water Management Plan (WWD 2013).

A key component of the District's Water Management Plan is water conservation. This program consists of the following elements.

- Irrigation Guide for water requirements per crop
- Water Conservation and Management Handbook
- Workshops and meeting on water management information
- Technical assistance and conservation computer programs
- Meter repair and update program

- Groundwater monitoring
- Pump efficiency tests
- Conjunctive use of supplies
- Irrigation System Improvement Program
- Satellite imagery purchased about once every two weeks

As discussed above, WWD serves as the groundwater management authority for the subbasin, pursuant to the Sustainable Groundwater Management Act.

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 Daylight Legacy 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 managed 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.

Local Agency Management Program (LAMP)

The Kings County Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (OWTS) is designed to incorporate Kings County's existing OWTS standards under the State

Water Resources Control Board's OWTS policy for the protection of groundwater sources and surface water bodies from contamination through the proper design, placement, installation, and maintenance of individual wastewater treatment systems. All proposed septic systems must be designed in accordance with the Kings County Plumbing Code and the LAMP, and are subject to the approval of the Kings County Community Development Agency and Environmental Health Services Division, which would ensure compliance with all applicable standards in order to avoid impacts to groundwater quality.

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 Daylight Legacy 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. As noted previously, the daily staffing needs during project operations would vary considerably depending maintenance and repair activities required on any given day. However, it is expected that the average staff level would be up to 10 workers per day. Based on a peak wastewater generation rate of 50 gallons per day (gpd) per person, the average peak daily volume of wastewater generated would be approximately 500 gallons. This is well below the 2,500 gpd threshold where Waste Discharge Requirements (WDRs) would be required for a small community system from the Regional Water Quality Control Board.

The septic and leachfield system at the Daylight Legacy Solar Project will be designed in accordance with the Kings County Plumbing Code and the Local Area Management Program (LAMP) as approved by the State Water Resources Control Board (SWRCB), and would subject to the approval of the Kings County Community Development Agency and Environmental Health Services Division, which would ensure compliance with all applicable standards in order to avoid impacts to groundwater quality (Kings County 2016). The Kings County Plumbing Code sets forth design criteria and standards for the installation septic systems. The general requirements for septic leachfield design are indicated on County's "Septic Tank Absorption Map," which classifies the County soils into four broad categories and indicates general specifications for the

number of square feet of leaching area required for each 100 gallons of septic tank capacity for each soil category. The septic tank and leachfield for the project is planned to be located at the O&M yard near the eastern site boundary, approximately 0.55 mile north of Laurel Avenue. This area of the project site is mapped as lying within the area where an engineered septic system would be required due to the presence of perched groundwater conditions (Kings County 2001). As such, the septic and leachfield system at the project will be designed and constructed as specified by a qualified registered professional engineer, and subject to approval of the Kings County Building Official, which would ensure effective functioning of the septic and leachfield system and avoid impacts to groundwater quality. Therefore, the Daylight Legacy Solar Project would result in *a less-than-significant impact* in terms of capability of the site soils to adequately support septic systems.

During construction of the Daylight Legacy Solar Project and Gen-Tie Line, sanitary needs will be provided by portable chemical toilets which will be serviced by an outside contractor as needed. Therefore, the Daylight Legacy Solar Project will meet waste discharge requirements and the impact would be *less than significant*.

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 Daylight Legacy 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 Quality Protection.

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 Daylight Legacy Solar Project and the Gen-Tie Line are each 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 Measure 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project would require water supplies during construction, operation, and decommissioning, as discussed in turn below. The water demands for the gen-tie line would far less and would occur only during construction and decommissioning.

Construction Phase

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 300 MW Daylight Legacy Solar Project will require a total of 316 acre-feet of water during its 12-month construction period. The construction of the gen-tie line would require approximately 3 acre-feet of water for dust suppression during construction and about the same volume during decommissioning. It is anticipated that water for construction will be obtained from the existing on-site agricultural well or another well in the vicinity.

Current groundwater pumping in the area varies substantially from year to year depending on availability of surface water deliveries of Central Valley Project (CVP) water delivered through the Westlands Water District (WWD). During years when WWD receives most of its CVP water allocation, groundwater provides a minor portion of irrigation requirements. During years of severe drought, like 2013 through 2016, and 2020 through 2022, groundwater pumping increases substantially to make up for shortfalls of surface water deliveries.

In 2014, the California Legislature passed the Sustainable Groundwater Management Act (SGMA) which requires that all medium to critically overdrafted subbasins identified by the California Department of Water Resources (DWR) be managed by a groundwater sustainability agency (GSA). The Daylight Legacy Solar Project is located in the Westside Subbasin. As the primary water purveyor and local agency within the Westside Subbasin, Westlands Water District is the designated GSA for the Subbasin. DWR designated the Westside Subbasin as a critically overdrafted basin which required WWD to prepare a Groundwater Sustainability Plan by January 31, 2020. On January 8, 2020, the

WWD Board of Directors adopted the Groundwater Sustainability Plan (GSP) for the 622,215-acre Westside Subbasin (which includes WWD's entire 614,700-acre service area)(DWR 2022). The GSP was approved by DWR on August 4, 2023 (DWR 2023a). The GSP determined that the long-term sustainable yield for the Subbasin is 305,000 acre-feet per year prior to management actions being implemented (WWD 2022). To manage groundwater during the initial years of GSP implementation, the GSA has established an interim allocation of groundwater extraction. The groundwater allocation framework is intended to manage demand by equally distributing the total annual pumping from the Subbasin on the basis of land acreage overlying the Subbasin. The groundwater allocation program includes a "transition period" from 2022 to 2030, in which a uniform annual allocation is initially established at 1.3 acre-feet per acre, which is to be subsequently reduced each year by 0.1 AF per acre until 2030 when the allocation would reach the long-term allocation of 0.6 AF per acre per year (WWD 2022). For purposes of this analysis, the groundwater supply available to the Daylight Legacy Solar Project is conservatively assumed to be the long-term allocation of 0.6 af/ac/yr.

The Daylight Legacy Solar Project and Gen-Tie Line will be constructed over 12-month period, resulting in total water demand of 319 acre-feet, or 0.15 af/ac/yr. This volume of groundwater pumping is well below the GSA's long-term groundwater extraction allocation of 0.6 af/ac/yr. Therefore, the groundwater pumped during project construction would not decrease groundwater supplies or contribute to the lowering of the local groundwater table level.

Operations Phase

During project operation, non-potable water will be required for activities such as panel cleaning, washing and rinsing equipment, and other operational uses. The gen-tie line would require little or no water during operations. As described in Section *2.2. Project Description*, the combined water usage from all operational activities is estimated to total 7.4 acre-feet annually over the 2,107-acre project site (or 0.0035 af/ac/yr).

Operational water supplies will be provided by Westlands Water District (WWD) through its existing system of lateral pipelines for conveyance of imported surface water. Under the WWD's Rules and Regulations, the Daylight Legacy Solar Facility will be eligible to receive surface water deliveries for operational use. In most years, available surface water from WWD would be sufficient to meet operational needs, but during very dry years when WWD receives 0 surface water deliveries from the Central Valley Project, the Daylight Legacy Solar Facility may need to rely on groundwater pumped from an onsite agricultural well. Under WWD's groundwater allocation rules, the project would be eligible to receive groundwater pumped from an onsite well. Under WWD's Groundwater Sustainability Plan (GSP), the project site would be subject to a pumping limit of 0.6 af/ac/yr, even in dry years, which would be more than sufficient to meet the estimated 7.4 afy (0.0035 af/ac/yr) of operational water demand for the project.

Temporary periodic curtailment of surface water supplies to meet the project's operational demands is not currently foreseen. Even during extreme drought years when imported water may not be available from the Central Valley Project, the WWD will typically purchase surface water on the open market in order to provide uninterrupted supply for its M&I customers. Alternatively, the relatively small volumes of untreated water that would be required for project operations could be obtained from an existing agricultural well on the site or in the vicinity. The 7.4 afy of operational water demand would be equivalent to 0.0035 af/ac/yr, or 0.6 percent of the GSA's long-term groundwater extraction allocation of 0.6 af/ac/yr. This very low level of temporary demand for groundwater would not

decrease groundwater supplies or contribute to the lowering of the local groundwater table level. In the unlikely event that no groundwater sources are available, the relatively small volumes of untreated water required could be purchased from an alternative source, such as the City of Lemoore, and trucked to the site.

The Daylight Legacy Solar Project would result in less than one percent increase in impervious surface coverage of the project site with surfaces created at the O&M facility, substation, and battery storage facility, and at the equipment pads which would be widely dispersed throughout 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 Phase

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 source of water during decommissioning is expected to be from an existing agricultural well located on the project site or nearby. The total groundwater pumped during decommissioning of the solar facility and gen-tie line is expected to be substantially less than the estimated 319 acre-feet required during project construction. Under a conservative assumption that water demand during decommissioning would be same as during construction, and that decommissioning would be completed in one year or less, this would represent a water demand of about 0.15 af/ac/yr over the 2,107-acre project site. This would be far less than the GSA's long-term extraction limit of 0.6 af/ac/yr; therefore, the project water demands during decommissioning would not result in overpumping or exceedance of the long-term sustainable yield of the groundwater basin. In summary, the groundwater pumped during decommissioning would not decrease groundwater supplies or contribute to the lowering of the local groundwater table level.

In summary, the Daylight Legacy Solar Project and Gen-Tie Line would not decrease groundwater supplies or interfere substantially with groundwater recharge, and thus the impact of the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project site or in the vicinity, with the nearest natural water body being the Kings River located approximately 4 miles east. Several irrigation canals and ditches pass through and alongside the project site, but these are no longer utilized to convey store irrigation water. However, these features may serve to incidentally capture and hold rainwater during the wet season. The project includes no proposal to alter the existing canal channels or ditches on the site, or to substantially modify the ground contours or surface drainage patterns on the site.

The installation of the project solar facilities would involve site clearing, rough grading, soil compaction, establishment of temporary construction staging areas, 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 tilling and grading to smooth out existing agricultural furrows, followed by compaction with rollers. Finished grades would be designed to provide for positive site drainage. As discussed in the Section *2.2. Project Description*, site clearing and soil preparation would occur incrementally and would commence in a given area only when it is needed for the next construction phase. 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 Daylight Legacy Solar Project and Gen-Tie Line:

> ***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 each project 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.

In summary, the implementation of Mitigation Measure HYD-1 in conjunction with the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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 transformers, and the footings and pads for the on-site O&M building, substation, battery storage facility, and the small, paved parking area in the operations yard. The maintenance driveways of the project would consist of compacted earth and graveled driveways to allow continued percolation of rainfall into the underlying soil. As shown in Table PD-1 in Section *2.2. Project Description*, the project would cover 0.13 percent of the site with impervious surfaces, leaving 99.87 percent of the site permeable for percolation of runoff, including 90.34 percent in vegetative cover and 9.53 percent in permeable driveways.

Since the impervious surfaces of the dispersed 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 soil. 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 0.2 percent across the site. Under current conditions, rainfall percolates into the soil with little or no runoff leaving the site. The Daylight Legacy 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 almost 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 project 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.

The gen-tie line would add a total of less than 0.5 acre of impervious surfaces at the tower sites over the 2.5 mile long gen-tie corridor, which would not result in a discernable increase on stormwater runoff.

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 Daylight Legacy Solar Project and Gen-Tie Line 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 0.13 percent impervious coverage at the Daylight Legacy Solar Project site (and less than 0.5 acre of impervious surfaces along the gen-tie line) would have a negligible effect on runoff patterns at the site, and is unlikely to generate runoff flows that would leave the site. The irrigation canals that run through and adjacent to the site were designed and constructed to convey irrigation water. Under existing conditions, these canals and ditches capture rainwater that incidentally enters these features from the adjacent fields. There is no existing system drainage collection system that conveys water from agricultural fields to these canals and ditches. The Daylight Legacy 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 adjacent irrigation canals and ditches, there will be little if any additional runoff generated by the project at would incidentally enter these canals. Therefore, these canals 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. The very minor leaks of oil or lubricants from maintenance vehicles and equipment used at the project would not be substantially different in nature or quantity from those expected from farm machinery used at the site under pre-project conditions. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line are not located within the flood zones for the 100-year or 500-year events, as mapped by the Federal Emergency Management Agency (FEMA). FEMA's Flood Insurance Rate Map (FIRM) covering the project site and gen-tie corridor 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 2009a). There is a very large area of mapped floodplain associated with the Tulare Dry Lake to the southeast of the project site. The nearest edge of Tulare Lake's 100-year floodplain generally follows the alignment of SR-41 and is approximately 3.7 miles southeast of the project site at its nearest point (FEMA 2009b).

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 parallel to and west of the San Luis Canal/California Aqueduct, and is located approximately 5.0 miles west of the project site at its nearest point (DWR 2023b).

In summary, no portion of the project site or gen-tie corridor is subject to flooding during the 100-year or 500-year events. Since the Daylight Legacy Solar Project and Gen-Tie Line are 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 a large reservoir in the region. Portions of Kings County located to the east and northeast of the Daylight Legacy 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 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 as far west as the intersection of SR-41 and Nevada Avenue, approximately 3.7 miles southeast of the project site. A failure of the Terminus Dam on the Kaweah River could inundate an area extending as far southwest as the intersection of Kansas and 10½th Avenues located south of the City of Hanford, approximately 16 miles east of the project site (Kings County 2010e). In summary, the Daylight Legacy Solar Project site and Gen-Tie corridor are 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. There are no other impoundments or diked areas nearby, and therefore the project site would not be subject to risk of flooding due to levee failure.

With respect to tsunamis, the Daylight Legacy Solar Project site would not be subject to inundation from potential tsunamis generated in the Pacific Ocean due to its inland location more than 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 with the exception of the wastewater settling ponds for NAS Lemoore, which are located 2.7 miles northeast of the Daylight Legacy Solar Project site and 1.5 miles east of the northern end of the gen-tie corridor. These ponds are relatively shallow, and in the unlikely event of seismic shaking severe enough to result in overspill, the spilled water would tend to flow down-gradient toward the Kings River to the east. The Daylight Legacy Solar Project site and Gen-Tie corridor are located up-gradient relative to the settling ponds, and given the distance to the ponds, there is little or no potential that spilled water from the ponds would reach the project site or gen-tie line.

In summary, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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 (such as canals and ditches), 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 septic system would be designed, constructed and operated in compliance with the Local Agency Onsite Wastewater Treatment System ("OWTS") Management Program ("LAMP") and the Kings County septic design standards, which would prevent groundwater impacts from wastewater disposal. The Daylight Legacy Solar Project would not include any other waste discharges that could conflict with the Basin Plan.

The Sustainable Groundwater Management Act (SGMA), passed in 2014, requires that all medium to critically overdrafted subbasins identified by the California Department of Water Resources (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 were required to submit

their GSP by 2022 and critically overdrafted subbasin were required to submit their GSP by 2020. As the primary water purveyor and local agency overlying the Westside Subbasin, Westlands Water District is the designated GSA for the subbasin. DWR designated the Westside Subbasin as a critically overdrafted basin which required WWD to prepare a Groundwater Sustainability Plan by January 31, 2020. Preparation of the GSA for Westside Subbasin commenced in 2016, and the final GSP was adopted by the WWD Board of Directors on January 8, 2020 (DWR 2022). The GSP was approved by DWR on August 4, 2022 (DWR 2023a). The GSP determined that the long-term sustainable yield for the subbasin is 305,000 acre-feet per year across the 622,215-acre subbasin area (which includes WWD's entire 614,700-acre service area). The GSA has prepared a groundwater allocation framework to manage demand by equally distributing the total annual pumping from the Subbasin on the basis of land acreage overlying the Subbasin. The groundwater allocation program includes a "transition period" from 2022 to 2030, in which a uniform annual allocation is initially established at 1.3 acre-feet per acre, which is to be subsequently reduced each year by 0.1 AF per acre until 2030 when the allocation would reach the long-term limit of 0.6 AF per acre per year. The groundwater will be distributed based on per-acre land ownership for all qualifying lands. For purposes of this analysis, the groundwater supply available to the Daylight Legacy Solar Project is conservatively assumed to be the long-term allocation of 0.6 AF per acre per year.

As discussed above, the Daylight Legacy Solar Project and Gen-Tie Line would require 0.15 AF per acre per year during project construction, and 0.0035 AF per acre per year during project operation, each of which is well below the GSA's long-term groundwater extraction limit of 0.6 AF per acre per year. Thus the Daylight Legacy Solar Project and Gen-Tie Line would not conflict with this groundwater management plan.

In summary, the Daylight Legacy Solar Project and Gen-Tie Line 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.

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4.11. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Physically divide an established community?	☐	☐	☐	■
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■

Setting

Existing Land Use

The Daylight Legacy Solar Project site and Gen-Tie corridor consist of agricultural fields with related features such as irrigation canals, ditches, water pipelines, standpipes, tanks, pump stations, filter systems, power lines, and unimproved agricultural roads. Several former agricultural irrigation canals and ditches run alongside and within the project site and gen-tie corridor, but most of these are no longer used and are dry. In recent years, the project site and gen-tie corridor have typically been cultivated for cotton, tomatoes, and wheat, with some fields left fallow.

The lands surrounding the project site and gen-tie corridor on the north and west consist of agricultural lands planted in row crops or tree crops, with some fields fallowed seasonally. The Shannon Ranch complex (including 20 dwellings) is located opposite Avenal Cutoff Road from the project site to the west, and the Stone Land Company Ranch is located 2.2 miles southwest on Nevada Avenue. Several solar generating facilities are located to the northeast and east including: the 200-MW Mustang/Orion/Kent South Solar Projects completed in 2017, located 0.8 mile northeast of the project site; the 250-MW Aquamarine Solar Project, completed in late 2021, located adjacent to the northeast; the recently completed 250-MW Solar Blue Project located adjacent to the east, and the recently completed 150-MW Castanea Solar Project located approximately 1.1 miles to the southeast. Recently approved solar projects in the vicinity include: the 250-MW Grape Solar Project located approximately 1.0 mile southeast, and the 250-MW Cherry Solar Project located adjacent to the southeast, both of which are scheduled to commence construction in 2024.

The nearest population centers include the community of Stratford located 5 miles east, the City of Huron located 8 miles west, the City of Lemoore located 8 miles northeast, and the Santa Rosa Rancheria located 9 miles east, the community of Kettleman City located 10 miles south, and Naval Air Station Lemoore (NASL), and its associated base housing, located 4 miles northeast of the project site, and 1.8 miles northeast of the north end of the gen-tie line.

Regulatory 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 covering the entire Daylight Legacy Solar Project site as "General Agriculture – 40 acre," while the land use designation applicable to most of the gen-tie corridor is "Exclusive Agriculture – 40 acre." Both of these agricultural designations fall 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.

Kings County Development Code

As designated in the Kings County Zoning Plan, the entire Daylight Legacy 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 2020a).

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*.

With respect to electrical substations and transmission lines, the Kings County Development Code permits electrical substations within agricultural zones without a permit, and transmission lines are subject to review by the zoning administrator (Kings County 2020b).

NAS Lemoore Joint Land Use Study

The NAS Lemoore Joint Land Use Study (JLUS) involved a multi-agency effort managed by the Department of Defense (DOD) for cooperative land use planning between NAS Lemoore and adjacent communities to provide for compatibility between future community growth and the training and operational missions of the military installation. Since DOD has no regulatory authority for local land use outside the boundaries of the naval air station, the JLUS also includes planning recommendations for consideration by local jurisdictions (JLUSPC 2011).

The noise contour mapping prepared for the JLUS shows bands of noise contours exceeding 60 dB CNEL which correspond closely to the flight corridors surrounding the airfield (JLUSPC 2011). The aircraft noise corridor is reflected in the *2035 Kings County General Plan* "Land Use Map," which designates lands within a 3-mile buffer zone from the installation, plus the noise-impacted areas (exceeding 70 dB CNEL) south of the buffer zone, as "Exclusive Agriculture – 40-acre minimum (AX)." The intent of this land use designation is to provide a safety buffer zone around the base by limiting and discouraging intensive agricultural and structure-based land uses that may pose increased risks to inhabitants and base operations (Kings County 2010a). The Daylight Legacy Solar Project site is located south of the NASL 3-mile buffer zone and is entirely outside the 60 dB CNEL noise contour and thus is not included in the "noise impacted" area which is zoned AX. The northern 1.5 mile segment of the gen-tie corridor is

located within the NASL 3-mile buffer zone and the northernmost 0.9 mile of the gen-tie corridor is located between the 60 and 65 dB CNEL noise contours (JLUSPC 2011).

The JLUS also identifies height obstruction limits near NAS Lemoore, with the limits applicable to a given area depending on its location relative to landing approach zones. The entire Daylight Legacy Solar Project site is located 3.7 miles south of the nearest accident potential zone mapped for NASL, and the northern end of gen-tie corridor is 2.2 miles south of the accident potential zone. The northern half of the project site and the gen-tie corridor are within the NASL flight Height Restriction Zone "G", which is subject to the height restriction of 500 feet above ground level, as regulated by the Federal Aviation Administration (JLUSPC 2011, p. 2-24).

Solar generating facilities are specifically addressed in JLUS Recommendation 17, which states: "Establish Minimum Technical Standards for Renewable Energy Facilities Located within NASL Overlay Zones I, II, and III (JLUSPC 2011, p. 2-51). The Daylight Legacy Solar Project site is located entirely within Overlay Zone III, which is the zone of least concern regarding the potential for "solar farms creating excessive glare from the reflection of the sun" (JLUSPC 2011, p. 2-9). The main concern is with concentrating solar thermal technologies such as lenses or mirrors on a large scale with their reflective characteristics and tall tower collectors. However, "if there is no central collection tower, the new solar panels can be made non-reflective and arrays could be installed to not cause any height or reflective issues" (JLUSPC 2011, p. 2-12).

Environmental Evaluation

a) Would the project physically divide an established community?

No Impact. The Daylight Legacy Solar Project site and gen-tie corridor are not located within or near an established community, so the proposed solar facilities and gen-tie line 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 Daylight Legacy Solar Project and Gen-Tie Line to conflict with the Kings County 2035 General Plan and Kings County Development Code, as well as the applicable land use recommendations of the NAS Lemoore Joint Land Use Study (JLUS), is discussed below.

Kings County

General Plan

The 2035 Kings County General Plan designates the entire Daylight Legacy Solar 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 Daylight Legacy 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 Daylight Legacy 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 Daylight Legacy Solar Project.

Regarding electrical substations and transmission lines, the Kings County Development Code permits electrical substations within agricultural zones without a permit, and transmission lines are subject to review by the zoning administrator (Kings County 2020b). Since the gen-tie corridor lies entirely within an agricultural zone, the gen-tie line would be consistent with the applicable zoning.

NAS Lemoore

Noise

The mapping prepared for the JLUS shows that the northern portion of the project site and gen-tie corridor are partially located beneath military aircraft flight paths. No portion of the project site is subject to noise levels greater than 60 dBA CNEL, and the northern 0.9 mile segment of the gen-tie corridor is subject to noise levels between 60 and 65 dBA CNEL. The noise from military aircraft overflights is addressed in detail in Section *4.13. Noise*, which concludes that the project would not be subject to significant noise impacts due to military overflights.

Height Obstruction Limits

The JLUS also identifies height obstruction limits near NAS Lemoore, with the limits applicable to a given area depending on its location relative to landing approach zones. The entire Daylight Legacy Solar Project site is located 3.7 miles south of the nearest accident potential zone mapped for NASL, and the northern end of gen-tie corridor is 2.2 miles south of the accident potential zone. The northern half of the project site and the gen-tie corridor are within the NASL Height Restriction Zone "G", which is subject to the height restriction of 500 feet above ground level, as regulated by the Federal Aviation Administration (JLUSPC 2011, p. 2-24). The tallest structures within the project would be well within this height limit. For example, the structural elements associated with the on-site substation would be as high as 75 feet; and the communications tower would be up to 125 feet tall. The monopoles of the associated gen-tie line extending 2.0 miles north of the project site would to be up to 180 feet tall. Thus the tallest project features would be well within the 500-foot height limit for physical obstructions within the nearest NASL approach/departure zone. The height of all of the project structures would also be below the 200 feet height limit above which structures are considered a potential collision hazard under federal law (CFR, Title 14, Aeronautics and Space, Section 77.17 Obstruction Hazards).

Reflected Glare

The JLUS addresses concerns with aviation hazards from reflection and glare. Solar facilities are mentioned specifically for their potential to produce reflective surfaces, but the JLUS acknowledges that the main concern is with highly reflective mirrors used in concentrating solar thermal facilities. The JLUS concludes that "if there is no central collection tower, the new solar panels can be made non-reflective and arrays could be installed to not cause any height or reflective issues" (JLUSPC 2011, p. 2-12). Indeed, solar PV facilities employ glass panels that are designed to maximize absorption and minimize reflection to increase electricity production efficiency. To limit reflection, solar PV panels 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. Since the solar panels would have low reflective intensity and would be covered with anti-reflective coating, any resulting glare effects would not be so bright as to disrupt aircraft operations in the area.

In this context, it is noted that a glint and glare study using the Sandia Laboratory's Solar Glare Analysis Tool (SGHAT) was prepared for the nearby Mustang Two Solar Project MND in August 2016. (The Mustang Two project is located two miles south of NAS Lemoore and is situated directly beneath the final approach corridor for incoming military aircraft.) In the analysis, impacts from solar glare were given three ranks, as follows: 1) potential for permanent eye damage; 2) potential for temporary after-image (a lingering image of the glare in the field of view); and 3) low potential for temporary after-image. Results from the analysis indicated that pilots flying over and near the Mustang Two solar facility would experience a low potential for a temporary after-image, and the potential would be limited to early morning from approximately April through September. The low potential for temporary after-image level is generally considered to be safe for pilots (Kings County 2017). The results of this glint and glare analysis are considered to be applicable to the Daylight Legacy Solar Project, which is 3.4 miles south NAS Lemoore, and no portion of the Daylight Legacy Solar site is within the flight approach/departure path. Therefore, it is concluded that the PV solar panels installed at the Daylight Legacy Solar Project site would not produce light or glare that would pose a hazard to flight operations at NAS Lemoore (see Section *4.9. Hazards and Hazardous Materials* for further discussion of reflected glare).

In summary, the Daylight Legacy Solar Project and Gen-Tie Line would be consistent with the applicable provisions of the Kings County 2035 General Plan and the County Development Code, and would also be consistent with the local recommendations of the NAS Lemoore Joint Land Use Study. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would result in *no impact* with respect to potential conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect.

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4.12. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	■
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

Environmental Setting

Southern Kings County and western Fresno County include several oil and natural gas fields. The nearest oil field is the abandoned Westhaven oil field located approximately 1.5 miles northwest of the project site in Fresno County. The gen-tie corridor is 3.0 miles east of the Westhaven oil field. There is one abandoned oil/gas well within the western portion of the Daylight Legacy Solar Project site. This well was drilled in 1984, found to be a dry hole, and then plugged and properly abandoned the same year. There are 8 other oil/gas wells within one mile of the project site and gen-tie corridor, nearest of which are 1,800 feet from the nearest project boundary, and 2,000 feet from the gen-tie corridor. Two of these wells, located south of the project site, were reported as non-producing have been idle since 1986 and 2006, and the remaining six were dry holes. The nearest active oil fields include the Kettleman North Dome oil field, located 9 miles southwest, and the Coalinga oil fields located 16 miles west of the project site. The nearest gas field is the abandoned Dudley Ridge gas field located 13 miles south of the project site (CalGEM 2023). (See Section *4.9. Hazards and Hazardous Materials* for a detailed discussion of the on-site oil/gas wells.)

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 2023). The 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 17 miles southwest and 23 miles west of the project site, respectively (DMR 2023). There are no sand and gravel deposits in the project vicinity, in either Kings or Fresno counties.

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 that 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 Daylight Legacy 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 is one abandoned oil/gas well within the western portion of the Daylight Legacy Solar Project site. The site plan for the Daylight Legacy Solar Project includes a clear area around the well site, and provides direct access from Avenal Cutoff Road to allow for equipment access and maneuvering in the future if needed. In addition, the project site plan includes several other clear areas which can be readily accessed to provide for potential future drill islands for mineral rights holders (see Figure PD-3a). Therefore, the Daylight Legacy Solar Project would provide full access to known and potential mineral resource sites within the project limits. There are no other oil and gas wells within or adjacent to the project site or gen-tie corridor. As such, the Daylight Legacy Solar Project and Gen-Tie Line 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 2023). 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 Daylight Legacy Solar Project and Gen-Tie Line 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 2023 — California Department of Conservation (CDOC), Geologic Energy Management Division (CalGEM). 2022. *Well Finder*. November. https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-119.89116/36.18388/12

CGS 2023 — California Department of Conservation (CDOC), California Geologic Survey (CGS). 2022. *Mines Online*. November. https://maps.conservation.ca.gov/mol/index.html

DMR 2023 — California Department of Conservation (CDOC), Division of Mine Reclamation (DMR). 2023. *CGS Information Warehouse: Mineral Land Classification*. November. 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

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

The discussion of potential noise and vibration impacts in this section was prepared with technical assistance from Illingworth & Rodkin, Acoustics and Air Quality Consultants, in July 2023.

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 the 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.

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 2018).

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	
		Threshold of human hearing
	0 dBA	

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 Daylight Legacy 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] Daytime	Outdoor Area[2] Nighttime	Interior[3] Day & Night	Notes
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 Avenal Cutoff Road; 2) agricultural equipment and crop dusters; and 3) occasional overflights by military aircraft from Naval Air Station Lemoore (NASL).

The Daylight Legacy Solar Project site is located approximately 6 miles south of the airfield at NASL, and is included in the study area for the NAS Lemoore Joint Land Use Study. The northern portion of the project site and most of the gen-tie corridor lie beneath the NASL flight pattern for military aircraft. According to the noise contour mapping contained in the NAS Lemoore Joint Land Use Study, the entire project site and the southern segment of the gen-tie line is subject to aircraft noise levels of less than 60 dBA CNEL due to overflights of military aircraft. The northernmost 0.9 mile of the gen-tie corridor is located between the 60 and 65 dB CNEL noise contours (JLUSPC 2011, p. 2-11).

The nearest residences to the project site include the following: 1) The Shannon Ranch complex (including 20 dwellings) located on the west side of Avenal Cutoff Road, with ranch residences located from 200 feet to 900 feet northwest of the project site; and 2) The Stone Land Company Ranch (2 dwellings) located 2.2 miles southwest of the project site. There are no other residences within 3.5 miles of the Daylight Legacy Solar Project site. The northern end of the gen-tie line is 1.9 miles southwest of the nearest base housing on NAS Lemoore. Several residences are located along travel routes for project construction traffic, including 2 dwellings along Laurel Avenue approximately 3.7 miles east of the project site, and 9 dwellings located on Jayne Avenue approximately 7.0 miles west of the project site.

The majority of project construction traffic will travel to and from the project site from the north via Avenal Cutoff Road, SR-41, and Laurel Avenue, with minor volumes traveling to and from the site from the southwest via Avenal Cutoff Road and Jayne Avenue.

In order to document conditions in the vicinity of the Shannon Ranch, two long-term noise measurements were conducted. The measurements were taken at locations along Lincoln/Gale Avenue and Avenal Cutoff Road. On Avenal Cutoff Road, a long-term noise measurement was conducted approximately 110 feet from the center of Avenal Cutoff Road between Thursday, June 2, 2022 and Tuesday, June 7, 2022. The noise measurements documented the existing daily trend in noise levels due to traffic. The day-night average noise level at this site ranged from 70 dBA L_{dn} to 77 dBA L_{dn}. Typical daytime hourly average noise levels were approximately 63 to 75 dBA L_{eq}.

In order to document conditions at the receptors along Lincoln/Gale Avenue, a long-term noise measurement was conducted approximately 65 feet from the center of Lincoln/Gale Avenue between Thursday, June 2, 2022 and Tuesday, June 7, 2022. The noise measurements documented the existing daily trend in noise levels due to traffic. The day-night average noise level at this site ranged from 62 dBA L_{dn} to 71 dBA L_{dn}. Typical daytime hourly average noise levels were approximately 55 to 74 dBA L_{eq}.

A long-term noise measurement was conducted alongside Nevada Avenue at the Stone Land Company Ranch complex between Thursday June 2, 2022 and Tuesday, June 7, 2022 in order to document conditions at the receptors located at the ranch complex. The sound level meter was placed approximately 80 feet from the center of Nevada Avenue to represent the noise exposure at residences in the immediate vicinity of the roadway. The noise measurements documented the existing daily trend in noise levels due to traffic. The day-night average noise level at this site ranged from 62 dBA L_{dn} to 68 dBA L_{dn}. Typical daytime hourly average noise levels were approximately 50 to 66 dBA L_{eq}.

In order to document conditions at the receptors along Laurel Avenue, a short-term noise measurement was conducted approximately 40 feet from the center of Laurel Avenue near the residential receptors on Thursday June 2, 2022. Autos produced noise levels ranging from 72 to 78 dBA and busses and trucks produced noise levels ranging from 74 to 80 during passbys. A jet produces a noise level reaching 73 dBA, and in the absence of localized sources of noise, background noise levels fell to between 28 and 38 dBA. Typical daytime average noise levels were approximately 64 to 65 dBA L_{eq} at a distance of 40 feet from the centerline. The data collected at this site was used to estimate the noise exposure at residences 675 feet north and 1,100 feet south of centerline on Laurel Avenue.

A short-term noise measurement was conducted approximately 60 feet from the center of Jayne Avenue on Thursday, June 2, 2022 between 1:50 pm and 2:10 pm in order to document conditions at the receptors along Jayne Avenue. The noise measurements documented the existing noise levels due to traffic. Autos produced noise levels ranging from 68 to 77 dBA and trucks produced noise levels ranging from 72 to 81 during passbys. Typical daytime average noise levels were approximately 66 to 67 dBA L_{eq} at 60 feet from the roadway center.

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 Daylight Legacy Solar Project and Gen-Tie Line. 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 Phase

During the construction phase, the two main sources of noise would be from 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 is 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 residential land uses are at the Shannon Ranch located approximately 200 feet from the nearest construction activity to the southeast. At this distance, the maximum construction noise levels reaching the nearest residences would range from 73 dBA L_{eq} to 75 dBA L_{eq}, taking into consideration the attenuation of sound with distance from the noise source. The applicable noise standard would be the highest hourly ambient noise level (75 dBA L_{eq}) plus 5 dBA, 80 dBA L_{eq}. Thus the highest construction-related noise levels of 75 dBA L_{eq} would not exceed the applicable County noise standard of 80 dBA L_{eq}, at the nearest receptors. It is noted that the nearest receptors would be subject to the highest calculated noise levels only when the noisiest equipment (e.g., vibratory pile drivers) are operating nearest to the receptors, a period which would be very short in duration. During the majority of construction, noise levels at the nearest receptors would be much lower. 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 was based on existing Average Daily Traffic (ADT) volumes on the affected roadway segments, with counted volumes increased to produce baseline traffic conditions in the first construction year (2025). The estimated worker commute volumes and truck deliveries generated during project construction were added to the baseline volumes to provide traffic conditions with project construction traffic added. Based on the incremental construction traffic volumes added to the affected roadways, it was calculated that the highest noise level increase on the affected roadways due to project construction traffic would be less than 3 dBA L_{dn}/CNEL above existing traffic noise conditions without the project at the most affected roadway – Laurel Avenue.

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 receptors that would be most affected by project construction traffic would be the two dwellings along Laurel Avenue located 3.7 miles east of the project site. Project construction traffic would result in a 64 percent increase in traffic volumes above existing conditions (2022) and a 60

percent increase in traffic volumes above baseline conditions (2025) along this segment of Nevada Avenue during the peak construction period. This would result in an approximate 2 dBA L_{dn} increase in noise levels along this roadway segment. The two residences along Laurel Avenue are located 675 feet north and 1,100 feet south of centerline on Laurel Avenue. The ambient noise level due to traffic at the building facades is estimated to be 43 to 47 dBA L_{dn} under existing conditions and would remain at those levels under baseline conditions. During peak construction, traffic noise levels at the two residences would increase to between 45 and 49 dBA L_{dn}. The 2 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}, resulting in a less than significant impact under the County's standards.

Under current conditions, the receptors that are subject to the highest ambient noise levels are the dwellings at the Shannon Ranch complex on Avenal Cutoff Road. During the peak construction period, commuting workers and delivery trucks would add 177 daily trips on this roadway segment, an increase of 2.6 percent over existing conditions (2022) and an increase of 2.5 percent over baseline conditions in 2025. This small increase in construction traffic would not measurably increase traffic noise levels along Avenal Cutoff Road. Day-night average noise levels at this location range from 70 to 77 dBA L_{dn}, so a significant noise impact would occur under the County's standards if the noise level increase is 1.5 dBA L_{dn}/CNEL or greater. Since the resulting noise increase would be less than 1 dBA L_{dn}, the dwellings at the Shannon Ranch complex would be subject to less than significant noise impacts due to project construction traffic.

Along Jayne Avenue, the cluster of nine rural dwellings on the south side of this roadway would be subject to an additional 66 daily trips during the peak construction period, which would represent at 1.6 percent increase over baseline volumes in 2025. This small increase in construction traffic would not measurably increase traffic noise levels along Jayne Avenue. It was calculated by Illingworth & Rodkin that the existing noise level at these dwellings is between 67 and 69 dBA L_{dn}. The increase in traffic noise along this segment of Jayne Avenue due to project construction traffic would be less than 1 dBA L_{dn} at these residences. This would be below the 1.5 dBA L_{dn} increase that would indicate a significant impact where ambient levels are 65 dBA L_{dn} /CNEL, per the County's noise standards.

The Stone Land Company Ranch on Nevada Avenue is located 2.2 miles southwest of the project site where construction noise from the project would not be audible. As noted, the day-night average noise level at this site ranged from 62 dBA L_{dn} to 68 dBA L_{dn}. Typical daytime hourly average noise levels were approximately 50 to 66 dBA L_{eq}. The Stone Ranch is located on a segment of Nevada Avenue which would be subject to little or no construction traffic generated by the project. Therefore, the dwellings at the Stone Land Company Ranch would be subject to no discernable increase in noise levels due to project construction traffic.

In summary, the construction traffic generated by the Daylight Legacy 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*.

Construction of Gen-Tie Line

The 2.5 mile long gen-tie line associated with the solar project is planned to be constructed over a 30-day period, with helicopters operating on up to 20 of those days for 4 hours per day. The general

sequence of activities for construction of the gen-tie line would involve the following steps: clearing of right-of-way and staging areas; installation of tower footings and structures; and conductor stringing. These construction activities would proceed in a step-wise fashion from one end of the gen-tie corridor to the other, and as such the duration of construction at any given location would be relatively brief.

The noisiest construction activity would occur during site preparation of tower sites and staging areas, when most construction equipment would be used. This equipment typically includes dozers, graders, compactors, auger drill rigs, and trucks, which produce maximum noise levels ranging from 80 to 85 dBA at 50 feet. The maximum noise level generated by several pieces of equipment operating continuously at a distance of 50 feet would be about 90 dBA. The nearest residential receptors are located 2.5 miles southwest at the Shannon Ranch, and 1.9 miles northeast at the NASL base housing. At the Shannon Ranch, the maximum noise level at the nearest residence would be 42 dBA, given that maximum noise levels would decrease at the rate of 6 dBA per doubling of distance from a point source. At the NASL base housing, the maximum noise level at the nearest residence due to gen-tie construction would be 44 dBA, although the construction noise would be obscured by the traffic noise on the intervening State Route 198. The maximum noise levels that would occur at the nearest residential facades from operation of conventional construction equipment would not exceed the applicable Kings County daytime noise standard of 75 dBA L_{max}.

Helicopter construction would be used for stringing pilot wires for conductors. The operation of a light duty helicopter for construction would generate maximum noise levels of approximately 80 dBA at 200 feet (USBLM 2016, p. 3.23-4). The stringing of conductor pilot wires by a helicopter would occur along the pole line and would occur at least 2.5 miles from the nearest residence at the Shannon Ranch and at least 1.9 miles from the NASL base housing. At these distances, the maximum noise levels at the nearest residences would be 44 and 34 dBA, respectively. The maximum noise levels that would occur at the nearest residential facades from helicopter construction would not exceed the applicable Kings County daytime noise standard of 75 dBA L_{max}.

In summary, the maximum noise levels of 44 dBA that would occur at the nearest residential facades during construction would not exceed the applicable Kings County noise standard, and the noise impact from gen-tie line construction would be *less than significant.*

Operational Phase

During the operational phase of the Daylight Legacy Solar Project, the two main sources of noise would be from on-site operational activities and from off-site traffic generation by operations staff, each of which is discussed in turn below.

<u>On-Site Noise Sources</u>

Noise sources at the project site would include inverters and transformers necessary to convert the generated power to collection voltage. The 300 MW Daylight Solar Project would include a total of 83 inverter/transformer pads (i.e., 1 per 3.75 MW of output). 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 of the 83 inverters/transformers at the project would result in an estimated worst-case noise level of 71 dBA L_{max}/L_{eq}, measured at a distance of 50 feet.

The project would include one substation, located adjacent to the eastern site boundary approximately 0.5 mile north of Laurel Avenue, for the purpose of stepping up voltage levels to 230-kV for transmission on the gen-tie line to the Mustang Switching Station. Sources of audible noise within a substation include equipment such as transformers, reactors, voltage regulators, circuit breakers and other intermittent noise generators. Among these sources, transformers, reactors, and circuit breakers have the greatest potential for producing noise. The broadband sound from fans, pumps and coolers has the same character as ambient sound and tends to blend with the ambient noise. Reactors are similar to transformers in terms of audible noise and would generate noise levels of about 40 dBA L_{eq} at 200 feet. The highest noise levels would be produced by circuit breakers, which would occur infrequently when breakers are thrown to protect the system during an electrical fault due to line overloads. The resultant noise would be impulsive in character, being loud and short in duration. The maximum impulse noise level from the breakers would be approximately 105 dBA L_{max} at 50 feet.

The project would also include a battery storage facility located just south of the on-site substation. Based on preliminary plans, the facility would include approximately 300 storage battery units, each enclosed within 40-foot long cargo containers. Each battery storage unit would be self-contained and would include racks, switchboards, inverters, and integrated HVAC units. The battery units would be served by transformers located on separate pads outside the containers, with each transformer serving four battery containers. Thus the battery storage system would consist of 300 battery containers and 75 transformers. 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 the worst-case alternative configuration would be 92 dBA L_{max}/L_{eq} at 50 feet. The nearest residential receptors to the battery storage facility would be located approximately 2.1 miles southwest (Shannon Ranch) of the facility and would both be exposed to noise levels of 44 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 than the daytime limit (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 72 dBA L_{max}/L_{eq} at a distance of 50 feet from the project solar fields (i.e., inverters/transformers), predicted noise levels associated with the inverter/transformer set located nearest to the dwellings on the Shannon Ranch (600 feet away) are calculated to be 50 dBA L_{max}/L_{eq}. These noise levels may be audible in the absence of local traffic, but would not measurably contribute to hourly average or daily average noise levels above ambient noise levels at the nearest receptors. Battery storage facility noise levels would be less than 44 dBA L_{max}/L_{eq} at the nearest receptor approximately 2.1 miles to the southwest of the battery facility (Shannon Ranch). The infrequent occurrence of impulsive noise from circuit breakers at the on-site substation would decrease to 58 dBA L_{max} at the nearest residences located

at least 2.2 miles from the substation. 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. The operation of the gen-tie line would result in little or no noise. Therefore, the operational noise from the Daylight Legacy Solar Project and Gen-Tie Line 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 solar facility. The traffic generated by periodic inspections and maintenance of the gen-tie line would be negligible. 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 – Laurel 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Phase

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 also be well below applicable County standards. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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. 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 Shannon Ranch complex (including 20 dwellings) located on the west side of Avenal Cutoff Road 200 feet northwest; 2) The Stone Land Company Ranch located on the south side of Nevada Avenue 2.2 miles southwest of the nearest site boundary; 3) the NASL basing housing located 1.9 miles northeast of the north end of the gen-tie line, and; 4) the completed Aquamarine and Solar Blue solar projects to the east where existing structures would be 200 feet from the nearest vibratory pile driving on the project site. 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 the locations of the nearest receptors, 200 feet northwest and 200 feet east, these vibration levels would range from 0.017 to 0.021 in/sec PPV. 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 structurally weakened structures. The majority of construction activity at the project site and gen-tie line 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 receptors are 200 feet northwest of the project construction area. At this distance, the greatest vibration from the nearest project construction activity may be barely perceptible to the nearest residents in the project vicinity, but not bothersome to persons of normal sensitivity. Therefore, project construction activities would not generate excessive vibration levels.

In summary, the heaviest construction equipment that would be used for construction of the Daylight Legacy Solar Project and Gen-Tie Line 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 the nearest off-site residential receivers. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line are not located near a public airport or public use airport, and are not located within an airport land use plan area. The nearest public or public use airports include the Hanford and Coalinga municipal airports, and the Harris Ranch airfield, all of which are located between 16 and 18 miles from the project site.

The project site and gen-tie corridor are located 6 miles and 4.5 miles south, respectively, of the airfield at Naval Air Station Lemoore (NASL), and are included in the study area for the NAS Lemoore Joint Land Use Study (JLUS). The entire Daylight Legacy Solar Project site is mapped as land subject to noise levels of less than 60 dBA CNEL, as mapped in the NAS Lemoore Joint Land Use Study, and the northernmost 0.9 mile of the gen-tie corridor is mapped between the 60 and 65 dB CNEL noise contours (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 proposed solar facilities are not considered noise-sensitive land uses and the permanent operational employees would be stationed at the O&M building which would be subject to aircraft noise levels of less than 60 dBA CNEL. Aircraft overflights would not expose construction workers and operational workers to noise levels of over 60 dBA CNEL within the solar project site, or over 65 dBA CNEL along the gen-tie corridor. 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 Daylight Legacy Solar Project and Gen-Tie Line's exposure to noise from airport operations would be *less than significant*.

The Daylight Legacy Solar Project site is located approximately 900 feet southeast of the Shannon Ranch airstrip, and the gen-tie line is located at least 2.0 miles from the airstrip. Maximum noise levels from landings, take-offs, and overflights of small aircraft stationed at this airstrip would likely be in the range of 60 to 73 dBA at the nearest affected area on the project site, similar to aircraft noise documented during the noise survey. The next nearest airstrip is located 2.2 miles southwest at the Stone Land Company Ranch. There are three airstrips located from 3.5 miles southeast to 6.2 miles northeast of the project site. Aircraft overflights associated with private airstrips are infrequent in nature, and 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 Daylight Legacy Solar Project and Gen-Tie Line would be associated with *no impact* due to noise generated by private airstrips in the vicinity.

In summary, the impact resulting from the Daylight Legacy Solar Project and Gen-Tie Line'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*.

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4.14. POPULATION and HOUSING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
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)?	☐	☐	☐	■
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

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 Daylight Legacy Solar Project and Gen-Tie Line 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 570 workers during the peak period of construction. These 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 the nearby communities of Lemoore and Hanford. Thus project construction would not directly result in population growth in the area.

Upon completion, four operational staff would be stationed at the solar facility, and up to 10 additional workers would visit the site on any given day to perform inspection, maintenance, repair, and panel cleaning duties. In the event that facility staff would relocate from outside the area, there is a sufficient supply of permanent housing available in the region to serve this need. According to the 2020 census, there are approximately 29,997 vacant housing units within a 50-mile radius of the project site in Kings, Fresno, and Tulare Counties, representing an overall vacancy rate of 5.6 percent (U.S. Census 2023). 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 the Daylight Legacy Solar Project site or within the gen-tie corridor. The nearest residences to the project site include the following: 1) The Shannon Ranch complex (including 20 dwellings) located opposite Avenal Cutoff Road to the northwest; 2) The Stone Land Company Ranch (with 2 dwellings) located 2.2 miles southwest on Nevada Avenue; 3) Three ranch complexes (with a total of 8 dwellings) along the east side of SR-41, located 3.5 to 4.1 miles east/southeast of the project site, and; 4) Five dispersed agricultural residences located 3.7 to 4.1 miles east of the project site along 22nd Avenue. None of these residential properties would be removed or encroached upon as a result of the project. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would result in *no impact* with regard to displacement of existing people or housing.

REFERENCES – POPULATION AND HOUSING

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4.15. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
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) Fire protection?	☐	☐	■	☐
ii) Police protection?	☐	☐	■	☐
iii) Schools?	☐	☐	☐	■
iv) Parks?	☐	☐	☐	■
v) Other public facilities?	☐	☐	☐	■

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 2023a).

The nearest KCFD fire stations to the project site are KCFD Station #10, located in Stratford approximately 5.7 miles east of the Daylight Legacy Solar Project site, and Station #9, located in Kettleman City approximately 10 miles south of the site. Response times from the two nearest stations would range from 4 minutes to 15 minutes depending on the location of the call within the project site. Backup response would be provided by Station #7 (south Lemoore) and Station #5 (Armona), which would respond to a call from the site within the KCFD's 20-minute rural response time goal. The KCFD maintains mutual aid agreements with the fire departments of Lemoore and Hanford, and also with the NAS Lemoore Fire Department and Santa Rosa Rancheria Fire (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 2023a).

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 Lemoore and Hanford.

The Potential Fire Hazards map of the Kings County General Plan Health and Safety Element (General Plan Figure HS-9) shows approximately 100 acres at the western edge of project site as lying "within 2400 meters [1.5 miles] of a high threat" of fire, likely associated with the nearby Shannon Ranch complex to the west. On remaining 95 percent of the site, approximately half the lands are mapped as lying "within 2400 meters of a moderate threat" with the remaining half of the project site mapped as being subject to "little or no threat." The entire gen-tie corridor is mapped as being subject to "little or no threat" (Kings County 2010e). The Daylight Legacy Solar Project site and gen-tie corridor are not included in a Fire Hazard Severity Zone (FHSZ) as mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2023).

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 approximately 17 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 Stratford approximately 5.5 miles east. 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 2022 were larceny, burglary, and aggravated assault (CDOJ 2023).

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 Daylight Legacy Solar Project and Gen-Tie Line would generate little or no demand for these public services and their related facilities.

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?

Less-than-Significant Impact. Construction and operation of the Daylight Legacy Solar Project and Gen-Tie Line 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, substation, 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 and gen-tie construction, water trucks used for dust suppression would be available for suppression of small fires.

Fire Hazards During Operation

During solar facility operation, equipment such as transformers, inverters, and substation equipment would involve the use of oils (e.g., dialectic 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. Overhead power collection lines would pose a fire hazard in the event a conducting object comes in proximity to a line or in the unlikely event that a live-phase conductor (electrical wire) falls to the ground. 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 (CO_2) 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 a number of prefabricated electrical enclosures containing battery banks and associated switchboards, inverters and transformers. 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. Depending on the technology and design of the battery units, the Kings County Fire Department may require purchase of specialized hazmat vehicles and equipment along with mandated training for Fire Department personnel.

The Daylight Legacy 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 driveways would consist of a durable dust-free (oiled) surface, with perimeter roads surfaced with gravel or decomposed granite, 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 driveways 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. The project proponent would also provide funds toward the purchase of an all-terrain firefighting vehicle capable of accessing the interior portions of the solar facility (KCFD 2023b). In addition, if and when fire protection services are provided to the solar facility and gen-tie line, the project operator will be responsible for paying for the cost of services provided. (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. The Fire Department would also require a supply of firefighting water available in storage tank and connected to a water source on the project site. The size of the storage tank would be determined by the Fire Department during plan check at the building permit stage.

As required in Mitigation Measures AG-1: Agricultural Management Plan, AG-2: Soil Reclamation Plan, and HYD-1: Stormwater Quality Protection, the remaining exposed soils on the project site after construction would be revegetated with an approved seed mix to prevent erosion and dust generation, and to sustain continued agricultural production on the site through sheep grazing, and also to protect on-site soils for future reclamation upon decommissioning. The vegetative cover would be kept low through sheep grazing activity and mechanical means which would reduce fuel

load buildup and reduce the potential hazard from grass fires. As is the case with all mitigation measures identified in this document, Mitigation Measures AG-1, AG-2, and HYD-1 would be imposed as conditions of project approval.

As discussed above under 'Setting', the gen-tie corridor is not included in a Fire Hazard Severity Zone (FHSZ) as mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2023). The Health and Safety Element of the Kings County General Plan maps the entire gen-tie corridor as being subject to "little or no threat" (Kings County 2010e). The potential for the energized gen-tie line to be a source of fire is negligible, and thus would result in a minimal demand for fire protection services.

In summary, although the solar facility and gen-tie line 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 Daylight Legacy Solar Project and Gen-Tie Line would result in a *less-than-significant 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?

Less-than-Significant Impact. Construction and operation of the Daylight Legacy Solar Project and Gen-Tie Line is not expected to result in increased in demand of police protection services leading to the construction of new or physically altered facilities.

Law enforcement services to the Daylight Legacy 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 solar project and gen-tie line 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 solar facility is completed and operational, calls for service 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. If and when Sheriff's Department services are provided to the solar facility and gen-tie line, the project operator will be responsible for paying for the cost of services provided.

During construction of the gen-tie line, police services may be required due to possible theft of construction equipment and/or vandalism that might occur during the construction period. Gen-tie line construction may also require temporary partial closure of roadways, especially where conductors are being strung over public roadways. Deliveries by heavy transport trucks may also require traffic control measures. Any temporary road closures or major traffic disruptions would involve coordination with local law enforcement. The traffic control measures required during gen-tie construction would result in a minor temporary use of the Sheriff's Office's resources; the overall impact to law enforcement services would not be significant.

In summary, it is expected that construction and operation of the solar project and gen-tie line would result in minimal demand on Sheriff's Office's operations and would not degrade service levels or result in the need for new or altered Sheriff's Office facilities. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would result in a minor increase in demand for law enforcement services, but would have a *less-than-significant impact* in terms of necessitating new or expanded Sheriff's Office facilities to maintain adequate service levels.

iii) Schools?

No Impact. The Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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. The few staff who would be stationed at the facility or who would visit the facility as needed to perform maintenance, repairs, and panel cleaning would be unlikely to seek out recreational activities while in the project area. As such, the Daylight Legacy Solar Project and Gen-Tie Line 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. **T**he Daylight Legacy Solar Project and Gen-Tie Line would not generate demand for social services, courts, libraries, or other public services. As such, the Daylight Legacy Solar Project and Gen-Tie Line would have *no impact* in terms of necessitating new or expanded facilities to maintain adequate service levels for other public services.

REFERENCES – 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) 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?	☐	☐	☐	■
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?	☐	☐	☐	■

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 Daylight Legacy Solar Project and Gen-Tie Line 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 their home communities during their non-working hours. The solar facility operation would involve a small number of personnel who would be stationed at the facility and additional staff who would visit the facility as needed to perform maintenance, repairs, and panel cleaning. Neither the project construction workers nor operations personnel would be likely to seek out recreational activities while working in the project area. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line would not include recreational facilities, and thus would not result in impacts associated with such facilities. The project would not include a residential component, and would involve a small number of operational workers, and thus would not result in increased demand for recreational facilities. As such, the Daylight Legacy Solar Project and Gen-Tie Line would have *no impact* related to construction or expansion of recreational facilities.

4.17. TRANSPORTATION

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

Transportation Setting

State highways in the vicinity that serve the project area include State Route 198 (SR-198) located to the north, SR-41 located to the east, SR-269 located to the west, and Interstate 5 located to the southwest. The main Kings County roads serving the project site include: Avenal Cutoff Road, which runs along the northwestern site boundary, and Laurel Avenue which traverses the northern portion of the site in an east-west direction.

The nearest public use airports in the project area include those at Hanford, Coalinga, and Harris Ranch, which are located between 16 and 18 miles from the project. The airfield at Naval Air Station Lemoore (NASL) is located 6 miles north of the Daylight Legacy Solar Project site and 4.5 miles north of the gen-tie line. There are three private airstrips within a 5-mile radius of the site, the nearest of which is located 900 feet northwest of the solar project site at the Shannon Ranch. The remaining two airstrips are located 2.2 miles southwest at the Stone Land Company Ranch, and 3.5 miles southeast at the Westlake Farms complex.

The nearest public transit routes of the Kings Area Rural Transit (KART) are along SR-198 to the north and SR-41 to the east. The nearest existing bikeway runs along Avenal Cutoff Road along the frontage of the Daylight Legacy Solar Project site, extending south from SR-198 to the Fresno County line (Kings County 2010d).

Regulatory Setting

State of California

California Vehicle Code

Various sections of the California Vehicle Code (CVC) apply to the Daylight Legacy Solar Project and Gen-Tie Line. 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.

Senate Bill 743

California Senate Bill 743 (SB 743), which went into effect in January 2014, states that "[n]ew methodologies under the California Environmental Quality Act are needed for evaluating transportation impacts that are better able to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations." 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.

In order to implement SB 743, the Natural Resources Agency adopted revisions to the CEQA Guidelines which became effective on December 28, 2018. The revised CEQA Guidelines eliminate the application of LOS-related metrics for determining the significance of transportation impacts associated with development projects, land use plans, and transportation infrastructure projects. Under the guidelines, VMT-related metric(s) are required to evaluate the significance of transportation-related impacts under CEQA. (The specific requirements of the Guidelines revisions under SB 743 are discussed in item 'b)' below.) SB 743 does not preclude the use of LOS-related metrics as set forth in local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute the basis for determining the significance of transportation impacts under CEQA.

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, and no VMT thresholds have been adopted by Kings County to date. Accordingly, the following environmental evaluation includes transportation impact analyses based on both the LOS metric (addressed in item 'a)' below) and the VMT metric (addressed in item 'b)' below).

Kings County

Kings County Regional Transportation Plan

The 2022 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 2022a). 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line will also generate traffic on Fresno County roadways as well as State highways, the LOS policies of Fresno County and the California Department of Transportation (Caltrans) are also considered in this analysis. Fresno County has policies which establish Level of Service (LOS) D as the minimum acceptable level of service on urban roads, and LOS C on rural roads (Fresno COG 2014). 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 2013a). 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, or LOS C on a rural County Road in Fresno County.

Less-than-Significant Impact. As is typical of all PV solar and gen-tie projects, the Daylight Legacy Solar Project and Gen-Tie Line would generate the greatest volume of traffic during the construction phases when substantial numbers of workers would be 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, and concrete, among other materials for the solar facility, and transmission towers, conductor cables, and other components for the gen-tie line.

Construction Traffic

Since the solar project and gen-tie line 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. In order to evaluate worst-case conditions, the traffic generated during the peak construction period was evaluated to represent project conditions. During this peak period, there would 570 workers commuting to the project site and gen-tie corridor daily. Based on observations during the construction of the Aquamarine and other solar projects in Westlands Solar Park, it was found that 25-30 percent of workers carpool to and from the construction site. For purposes of analysis, it was assumed that 25 percent of workers would carpool. Thus during the peak construction period, the 570 workers would generate 428 round trips, or 856 trip ends per day.

Construction workers would arrive at the site between 5 to 7 AM, with the majority of the workers departing the site prior to 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, and since all County roads and State highways in the vicinity operate at Level of Service B or C and thus have ample surplus capacity, 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 2.0 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 2025, the existing count data for each affected 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. Table TR-1 includes only those roadway segments that would be subject to 40 daily project-generated trips (or 20 round trips per day). All other roadway segments would have fewer than 40 daily trips added due to project construction traffic.

TABLE TR-1
PROJECT CONSTRUCTION TRAFFIC
(BASED ON PEAK CONSTRUCTION PERIOD WHEN CONSTRUCTION PHASES OVERLAP)

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] 2025									
Interstate 5 - North of SR-198	37,000[10]	38,889	4 (fwy)(CT)	B	C	55,300	63	39,952	0.2%	C	No
SR-198 - b/n I-5 & SR-269.	4,200[10]	4,414	2 (CT)	C	C	16,400	63	4,477	1.4%	C	No
- b/n SR-269 & Avenal Cutoff Rd	14,600[10]	15,345	2 (CT)	C	D	16,400	55	15,400	0.4%	C	No
- b/n Avenal Cutoff Rd. & SR-41	19,900[10]	20,915	4 (fwy)(CT)	A	D	67,100	377	21,292	1.8%	A	No
- b/n SR-41 & 19th Ave.	22,400[10]	23,543	4 (fwy)(CT)	A	D	67,100	372	23,915	1.6%	B	No
SR-41 - b/n SR-198 & Bush St.	17,500[10]	18,393	4 (fwy)(CT)	A	D	67,100	273	18,666	1.5%	A	No
- b/n SR-198 & Jackson Ave.	10,800[10]	11,351	2 (CT)	B	D	16,400	257	11,632	2.3%	B	No
- b/n Jackson & Nevada Aves.	8,700[10]	9,144	2 (CT)	B	D	16,400	386	9,530	4.2%	B	No
SR-269 - b/n SR-198 & Jayne Ave.	4,500[10]	4,730	2 (CT)	B	D	16,400	60	4,790	1.3%	B	No
Avenal Cutoff Road - b/n I-5 and Nevada Ave.	3,842[11]	3,919	2 (KC)	C	D	16,400	52	3,971	1.3%	C	No
- b/n Nevada Ave & Laurel Ave	6,811[11]	6,879	2 (KC)	B	D	16,400	177	7,056	2.5%	B	No
- b/n Laurel Ave & SR-198	6,811[11]	6,879	2 (KC)	B	D	16,400	421	7,350	6.1%	B	No
Laurel Avenue - b/n Avenal & Project Entrance	640[11]	686	2 (KC)	B	D	16,400	583	1,569	85.0%	B	No
- b/n SR-41 & Project Entrance	640[11]	686	2 (KC)	B	D	16,400	409	1,095	59.6%	B	No
Jane Avenue - b/n Avenal Cutoff & SR-269	3,915[11]	4,034	2 (FC)	B	C	13,800	66	4,100	1.6%	B	No
- b/n SR-269 & I-5	4,786[11]	4,931	2 (FC)	C	C	13,800	66	4,997	1.3%	C	No
- b/n I-5 & SR-33	6,546[11]	6,744	2 (FC)	C	C	13,800	66	6,810	1.0%	C	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 (2025).
[5] Agency abbreviations: KC = Kings County; CT = Caltrans; FC = Fresno County.
(continued on next page)

[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.
[10] Source: Caltrans 2023 (reflects 2020 volumes).
[11] Source: National Data & Surveying Services (NDSS) 2022 (machine counts taken in May 2022).

As shown in Table TR-1, none of the affected roadway segments would be subject to a reduction in Level of Service below applicable thresholds due to project-generated construction traffic. During the period of peak project construction activity, the most heavily affected roadway segment – Laurel Avenue near the solar project construction entrance – would be subject to an 85 percent increase in daily traffic west of the project entrance, and a 60 percent increase in daily traffic volumes east of the project construction entrance. However, due to the very low existing traffic volumes on Laurel 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 0.2 to 6.1 percent in overall traffic volumes. The project-generated traffic volumes would be lower during non-peak periods of construction on all affected roadways.

In summary, project construction traffic would not result in a reduction of service levels below applicable thresholds on any of the affected roadways, which would remain at LOS C or better on all affected roadway segments. Thus all roadways affected by project construction would maintain the County's LOS standard of D as established in the *General Plan Circulation Element,* and would also maintain the LOS D standard applicable on State highways in Kings County, and the LOC C standard on Fresno County's rural roads. Thus, the increment of traffic volume generated by the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar facility is operational, the project-generated traffic would become very light. The operational traffic generated by the gen-tie line would consist of periodic inspection and maintenance staff, which would be negligible. A very small permanent staff would be stationed at the solar facility to perform inspections, maintenance and repairs, and contractors would visit the project on a regular basis. These include panel washing crews who would work on the site up to two times per year for several weeks at a time, and sheep contractors would be present on the site during the early months of each year. There would also be occasional truck deliveries for replacement parts and other materials. On average, it is estimated that a total of 10 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 gen-tie line, and the impact of operational traffic from the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 40 years, it is expected that the affected roadways will be operating at acceptable service levels at that time. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line would have a *less-than-significant impact* in this regard.

Transit, Roadway, Bicycle and Pedestrian Facilities

Less-than-Significant Impact. The Regional Bike Routes plan in the *2035 Kings County General Plan Circulation Element* shows an existing bikeway on Avenal Cutoff Road that passes along the northwest frontage of the Daylight Legacy Solar Project site. The project would introduce additional traffic which would increase potential interaction between bicyclists on the roadway and vehicles making turning movements from Avenal Cutoff Road to access the solar project site and gen-tie corridor. However, project egress would be controlled by stop signs, and sight-lines in all directions would be very good given the flat terrain and lack of visual obstructions. During project construction, the small increases in traffic congestion and hazard introduced by slow moving vehicles would be addressed through implementation of the traffic safety measures identified in Mitigation Measure TR-1, which would also be expected to reduce potential traffic hazards to bicyclists. As such, the solar project and gen-tie line would not pose a safety hazard to bicyclists or otherwise decrease the performance of the existing or planned bikeways in the project vicinity.

The nearest other planned bikeways in the project area are: 1) along Nevada Avenue between Avenal Cutoff Road and SR-41, and; 2) along Jackson Avenue between Avenal Cutoff Road and 18th Avenue. These planned bikeway segments are several miles from the project site and gen-tie corridor and would not be directly affected by the project, and also would not be indirectly affected since little if any project-generated traffic would use those roadway segments. The solar project and gen-tie line would not conflict with any adopted policies, plans, or programs regarding bicycle facilities, or otherwise decrease the performance or safety of bicycle facilities (Kings County 2010d).

There are no existing or planned public transit routes or pedestrian facilities in the project vicinity, so the solar project and gen-tie line would not decrease the performance or safety of such facilities.

The solar project and gen-tie line would not conflict with any adopted policies, plans, or programs regarding transit or pedestrian facilities, or otherwise decrease the performance or safety of transit or pedestrian facilities (Kings County 2010d).

In summary, the Daylight Legacy Solar Project and Gen-Tie Line would result in no potential conflicts with transit, bicycle, or pedestrian plans, policies, or programs, or otherwise decrease the performance or safety of such facilities. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line 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)?

As discussed under Regulatory Setting above, this section of the CEQA Guidelines was included in the comprehensive amendments to the State CEQA Guidelines which took effect on December 28, 2018. The referenced Guidelines Section 15064.3(b) sets forth revised criteria for analyzing transportation impacts of proposed projects, as required under SB 734. For land use projects, this section states that "vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact." The purpose in applying vehicle miles traveled (VMT) as the analytical metric is 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. 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. As noted, on June 9, 2020 the Kings County Board of Supervisors adopted Resolution No. 20-041 delaying the implementation of Vehicle Miles Traveled requirements as authorized in Senate Bill 743 for at least 2 years, and no VMT thresholds have been adopted by the County to date. Nevertheless, the following analysis is provided for to show compliance of the project with SB 743.

In the Technical Advisory issued by the Governor's Office of Planning and Research (OPR) for guidance in implementing SB 734, 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 734. 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 Daylight Legacy Solar Project and Gen-Tie Line are discussed in turn below.

Construction

The Daylight Legacy Solar Project and Gen-Tie Line would be constructed over a period of one year 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 48,044 miles per day (i.e., 8,647,930 vehicle miles / 180 construction days). In comparison, the average VMT for Kings County in 2020 (the most recent year for which VMT data is available) was 4,095,140 miles per day (KCAG 2022b, p. 4.13-16). Thus, the daily VMT generated during construction of the Daylight Legacy Solar Project and Gen-Tie Line would be equivalent to about 1.17 percent of average daily VMT in Kings County. (The actual project-related VMT occurring in Kings County would be substantially less considering that much of the project VMT generated by commuting workers and delivery trucks would occur outside Kings County.) This very small increment in VMT would occur only during the one year construction period. As discussed under item 'a)' above, the roadways that would be most affected by project construction traffic (i.e., roadways subject to 40 daily construction trips or more) 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 local roadways, which would all have substantial remaining traffic carrying capacity during the one year project construction period. The greenhouse gas emissions from project construction would be relatively small, and the Daylight Legacy Solar Project and Gen-Tie Line 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 relatively low VMT generated during project construction, and considering that the Daylight Legacy Solar Project and Gen-Tie Line would help the State achieve its greenhouse gas reduction goals, and would thus advance the specific purpose of AB 734, the project would not conflict with or be

inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, the project construction traffic impact associated with the Daylight Legacy Solar Project and Gen-Tie Line under this significance criterion would be *less than significant*.

Operations

As discussed under item 'a)' above, traffic generated during project operations would be very light. A small number of permanent staff would be stationed at the solar facility, and contractors would occasionally visit the project to perform maintenance activities such as panel washing. On average, it is estimated that about 10 daily round trips (i.e., 20 trip ends or trips) would be generated by the workers on any given day. Operational traffic associated with the gen-tie line would be negligible. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project would have several driveway entrances on Avenal Cutoff Road and Laurel Avenue, with the main entrance located on Laurel Avenue near the eastern site boundary. The new entrances would result in turning movements in and out of the project site which would increase the potential for interaction with traffic along these County roads. 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 the affected County roads. Access to the gen-tie line north of Avenal Cutoff Road would be provided by the existing farm roads within the gen-tie corridor. Due to negligible vehicular visits to the gen-tie line, no special design considerations would be needed for the gen-tie, as is the case with existing farm vehicles and equipment. Thus the potential traffic hazard resulting from the project would generally be 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 associated with the Daylight Legacy Solar Project and Gen-Tie Line 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 SR-41 and SR-198, and the secondary evacuation routes include Avenal Cutoff Road, Laurel Avenue and Kansas Avenue (Kings County 2010e).

Less-than-Significant Impact with Mitigation Incorporated. The Daylight Legacy Solar Project will have project entrances on Avenal Cutoff Road and Laurel Avenue, both of which are County-designated emergency evacuation routes and will serve as critical evacuation routes for the Daylight Legacy Solar Project itself. These routes 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 solar facility will include an internal system of driveways and aisleways to provide adequate emergency access throughout the facility. 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 gen-tie line would have no formal access but would rely on existing farm roads within the gen-tie corridor for occasional inspection and maintenance activities. Therefore, with the implementation of Mitigation Measure TR-1, the Daylight Legacy Solar Project and Gen-Tie Line would result in *a less-than-significant impact* with respect to adequacy of emergency access.

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4.18. TRIBAL 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 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	☐	■	☐	☐
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.	☐	■	☐	☐

Regulatory Context

Assembly Bill 52

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

*A*s discussed in Section *4.5. Cultural Resources*, archival research and reconnaissance of the Daylight Legacy Solar Project and Gen-Tie Line by Basin Research Associates indicated that no significant archaeological resources are present within the project site, gen-tie corridor 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 there is 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 excavations associated with Daylight Legacy 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 located approximately 3.5 miles southeast of the project site.

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 Daylight Legacy Solar Project site or gen-tie corridor.

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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line indicated that there are no known tribal cultural resources within the project site or gen-tie corridor, although there is a potential for discovery of previously unknown tribal cultural resources during site

disturbance and construction of Daylight Legacy Solar Project and Gen-Tie Line. 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*. 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. Potential impacts to tribal cultural resources are fully addressed in Mitigation Measures CUL-1 and CUL-2 as set forth in Section *4.5. Cultural Resources* above. These measures include the following requirements: 1) Provide the Santa Rosa Rancheria Tachi Yokut Tribe with the results of the archaeological records search, the archaeological survey, and the Sacred Lands File search from the Native American Heritage Commission; 2) Put in place a Curation Agreement for any discovered cultural resources; 3) Place a cultural resources alert on all project plans; 4) Retain the Tribe to provide pre-construction and pre-decommissioning briefings; 5) Stop work near any discovered cultural resources; 6) Implement mitigation for discovered cultural resources in accordance with the Curation Agreement; 7) Provide the Tribe with the opportunity to conduct cultural resources monitoring during construction and decommissioning; 8) Disposition of any discovered cultural resources in accordance with the Curation Agreement; 9) Put in place a Burial Treatment Plan; and 10) Disposition of any discovered native human remains in accordance with the Burial Treatment Plan and applicable State law.

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 associated with the Daylight Legacy Solar Project and Gen-Tie Line would be reduced to *less than significant.*

Mitigation Measure: Implement MM CUL-1 and CUL-2.

REFERENCES – TRIBAL CULTURAL RESOURCES

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[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

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
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?	☐	☐	☐	■
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
c) Result in a determination by the wastewater treatment provider 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?	☐	☐	☐	■
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?	☐	☐	■	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	■

Setting

Water Supply

Agricultural water supply for crop irrigation on the project site is provided from imported surface water deliveries provided by the Westlands Water District (WWD), and augmented by groundwater pumping from agricultural wells. There are five operational agricultural wells located in the west-central area of the project site. There are no sources of potable domestic water at the project site.

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 designed, constructed, and operated in accordance with the requirements and standards of Kings County and the Regional Water Quality Control Board.

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 Daylight Legacy 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 0.2 percent. During normal rain events, runoff from impervious surfaces would be absorbed by the soil and percolate into the groundwater basin. During more intense or prolonged storm events, the ground becomes saturated and relatively small volumes of stormwater temporarily pond on the surface and gradually percolate into the ground, and some areas drain to adjacent canals and drainage ditches.

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). Two 12-kV distribution lines run through the site – one along the unimproved Lincoln Avenue alignment and the second along the unimproved 26th Avenue alignment.

Natural Gas

The project site is within the service area of Southern California Gas Company (SoCalGas), which has a high pressure natural gas transmission pipeline that runs diagonally through the site from southwest to northeast, parallel to Avenal Cutoff Road at a distance of about 0.6 mile southeast of the roadway. There are no natural gas distribution lines on the project site or in the immediate vicinity.

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 84,078 tons, or an average of 280 tons per day (assumes landfill is open 300 days per year)(CalRecycle 2023e). The total permitted capacity of 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 [i.e., approx. 250,000 cubic yards per year compacted], it is roughly estimated that the B-17 Landfill Unit had a remaining capacity of approximately 14.5 million cubic yards at the end of 2022.) The facility's estimated closure year is 2030, with the actual closure date depending on the rate of fill (CalRecycle 2023f).

The Avenal Regional Landfill has a maximum permitted disposal rate of 6,000 tons per day, and in 2019 accepted a total of 14,782 tons, or an average of 49.3 tons per day (CalRecycle 2023e). The total permitted capacity of the 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 [i.e., approx. 39,000 cubic yards per year compacted], it is roughly estimated that Avenal Landfill had a remaining capacity of approximately 30.0 million cubic yards at the end of 2022.) The facility's estimated closure year is 2042, with the actual closure date depending on the rate of fill (CalRecycle 2023f). 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 44.5 million cubic yards at the end of 2022.

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 overdrafted 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). For medium and high priority groundwater basins and subbasins, the preparation of the GSPs is mandatory, with adoption deadlines of 2020 or 2022 depending on the basin's priority. As the primary water purveyor in the Westside Subbasin, the Westlands Water District is the designated Groundwater Management Agency for the subbasin. DWR has designated the Westside Subbasin as a critically overdrafted basin for which a draft GSP was adopted by WWD on January 7, 2020, and approved by DWR on August 4, 2023 (DWR 2023a). The purpose of the GSP is to characterize groundwater conditions in the Westside Subbasin, evaluate and report on conditions of overdraft, establish sustainability goals and sustainability management criteria, and describe projects and management actions the GSA intends to implement to achieve sustainability by 2040.

Westlands Water District

The Westlands Water District provides surface water for agricultural irrigation and for municipal and industrial uses from surface water deliveries provided by the U.S. Bureau of Reclamation from the

Central Valley Project (CVP) facilities that convey captured Sierra snowmelt to the west side of the San Joaquin Valley. In an ongoing effort to adapt to surface supply shortages, and to reduce groundwater overpumping, the District provides funding for education and technology, enabling growers to effectively utilize surface water allotments through efficiencies and conservation. The District also monitors the water quality and quantity of pumped groundwater as part of its Water Management Plan (WWD 2013).

A key component of the District's Water Management Plan is water conservation. This program consists of the following elements.

- Irrigation Guide for water requirements per crop
- Water Conservation and Management Handbook
- Workshops and meeting on water management information
- Technical assistance and conservation computer programs
- Meter repair and update program
- Groundwater monitoring
- Pump efficiency tests
- Conjunctive use of supplies
- Irrigation System Improvement Program
- Satellite imagery purchased about once every two weeks

As discussed above, WWD serves as the groundwater management authority for the subbasin, pursuant to the Sustainable Groundwater Management Act.

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 their 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 Daylight Legacy Solar Project:

Resource Conservation Element

A. 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).

Local Agency Management Program (LAMP)

The Kings County Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (OWTS) is designed to incorporate Kings County's existing OWTS standards under the State Water Resources Control Board's OWTS policy for the protection of groundwater sources and surface water bodies from contamination through the proper design, placement, installation, and maintenance of individual wastewater treatment systems. All proposed septic systems must be designed in accordance with the Kings County Plumbing Code and the LAMP, and are subject to the approval of the Kings County Community Development Agency and Environmental Health Services Division, which ensure compliance with all applicable standards in order to avoid impacts to groundwater quality.

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 Daylight Legacy Solar Project and Gen-Tie Line would use untreated groundwater obtained from an existing on-site agricultural well or another well in the vicinity. During project operations, imported (untreated) surface water would be obtained from the Westlands Water District (with agricultural well water as a backup source) for maintenance activities and panel cleaning. During construction, project operations, and decommissioning, drinking water would be provided by bottled water delivered by truck. Shortages of untreated well water or surface water supplies to meet project demands during construction, operations, or decommissioning are not currently foreseen. However, in the unlikely event that such unforeseen shortages may occur in the future, possibly in the event of a prolonged severe drought, the relatively small volumes of untreated water that would be temporarily required during the construction, operations, and decommissioning phases would be purchased from alternative sources and trucked to the site. 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 Daylight Legacy Solar Project will include an O&M building with sanitary facilities for workers who will be stationed at the facility or who will regularly visit the site perform inspection, maintenance, and repair tasks, and panel washing. These sanitary facilities will be connected to an adjacent septic tank and leachfield system. The septic and leachfield system at the Daylight Legacy Solar Project will be designed in accordance with the Kings County Plumbing Code and the Local Area Management Program (LAMP) as approved by the State Water Resources Control Board (SWRCB), and would subject to the approval of the Kings County Community Development Agency and Environmental Health Services Division, which would ensure compliance with all applicable standards in order to avoid impacts to groundwater quality (Kings County 2016). The Kings County Plumbing Code sets forth design criteria and standards for the installation septic systems. The general requirements for septic leachfield design are indicated on County's "Septic Tank Absorption Map," which classifies the County soils into four broad categories and indicates general specifications for the number of square feet of leaching area required for each 100 gallons of septic tank capacity for each soil category. The septic tank and leachfield for the project is planned to be located at the O&M yard near the eastern site boundary, approximately 0.55 mile north of Laurel Avenue. This area of the project site is mapped as lying within the area where an engineered septic system would be required due to the presence of perched groundwater conditions (Kings County 2001). As such, the septic and leachfield system at the project will be designed and constructed as specified by a qualified registered professional engineer, and subject to approval of the Kings County Building Official, which would ensure effective functioning of the septic and leachfield system and avoid impacts to groundwater quality. Therefore, the Daylight Legacy Solar Project would result in *a less-than-significant impact* in terms of capability of the site soils to adequately support septic systems.

During construction of the Daylight Legacy Solar Project and Gen-Tie Line, sanitary needs will be provided by portable chemical toilets which will be serviced by an outside contractor as needed. Therefore, the potential wastewater treatment impacts associated with Daylight Legacy Solar Project and Gen-Tie Line would be *less than significant*.

Stormwater Drainage

No new stormwater drainage facilities are planned to be constructed for the Daylight Legacy 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 0.2 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 1 percent impervious surface coverage of the site, with over 90 percent of the site retained in vegetated cover and approximately 9 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 Daylight Legacy Solar Project and Gen-Tie Line would not require the construction of new stormwater drainage facilities, and there would be no impact in this regard.

Electric Power

The Daylight Legacy Solar Project is itself a power generating facility; however, 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 lines that run through the site and along Avenal Cutoff Road, 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 impacts resulting from installation and removal of electrical service connections to the project site would be *less than significant*.

Natural Gas

The Daylight Legacy Solar Project would not require the installation of natural gas service lines for power generation or other purposes, and there would be no impact in this regard.

Telecommunications

Telecommunications to the Daylight Legacy Solar facility would likely be provided via fiber-optic cable. Alternatively, telecommunications may be conducted wirelessly, in which case a telecommunications tower up to 125 feet tall would be included at the O&M facility. As discussed in Section *4.11. Land Use and Planning*, the tower would be located outside the 500-foot height limit zone for NAS Lemoore; but even if it was within the height restriction zone, it would still be well below the applicable 500-foot height limit. The installation of telecommunications facilities at the project site would not result in a *less than significant* impact.

Conclusion

Less-than-Significant Impact. The Daylight Legacy Solar Project and Gen-Tie Line would not require or result in the relocation or construction of new or expanded facilities for water supply, stormwater drainage, electric power, natural gas facilities, the construction or relocation of which could cause significant environmental effects. As such, there would be no impact with regard to such facilities. The project would involve the installation of minor facilities for wastewater treatment, electrical service, and telecommunications, the installation of which would result in *less-than-significant* impacts.

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 following evaluation of water supply for the Daylight Legacy Solar Project is based on the Water Supply Assessment (WSA) contained in Appendix C of this document.

Construction Phase

As discussed in Section 2.2. Project Description, it is estimated that construction of the Daylight Legacy Solar Project will require a total of 316 acre-feet of water, mainly for dust suppression and soil conditioning during the 12-month construction period. The construction of the gen-tie line would require approximately 3 acre-feet of water for dust suppression, bringing the total project construction demand to 319 acre-feet. Since the project construction is planned to begin in 2025 and end in 2026, the average annual water demand for project construction would be 160 acre-feet per year (afy), assuming water consumption is evenly split between the two years. It is anticipated that water for construction will be obtained from the existing on-site agricultural well or another well in the vicinity.

Current groundwater pumping in the area varies substantially from year to year depending on availability of surface water deliveries of Central Valley Project (CVP) water delivered by the Westlands Water District (WWD). During years when WWD receives most of its CVP water allocation, groundwater provides a minor portion of irrigation requirements. During periods of severe drought, as occurred from 2013 through 2016, and 2020 through 2022, groundwater pumping increases substantially to make up for shortfalls of surface water deliveries (WWD 2023).

In 2014, the California Legislature passed the Sustainable Groundwater Management Act (SGMA) which requires that all medium to critically overdrafted subbasins identified by the California Department of Water Resources (DWR) be managed by a groundwater sustainability agency (GSA). As the primary water purveyor and local agency within the Westside Subbasin, the Westlands Water District is the designated GSA for the subbasin. DWR designated the Westside Subbasin as a critically overdrafted basin which requires WWD to prepare a Groundwater Sustainability Plan (GSP) by January 31, 2020. On January 8, 2020, the WWD Board of Directors adopted the GSP for the 622,215-acre Westside Subbasin (which includes WWD's entire 614,700-acre service area)(DWR 2022). The GSP was approved by DWR on August 4, 2023 (DWR 2023a). The GSP determined that the long-term sustainable yield for the subbasin is 305,000 acre-feet per year prior to management actions being implemented (WWD 2022). To manage groundwater during the initial years of GSP implementation, the GSA has established an interim allocation of groundwater extraction. The groundwater allocation framework is intended to manage demand by equally distributing the total annual pumping from the Subbasin on the basis of land acreage overlying the Subbasin. The groundwater allocation program includes a "transition period" from 2022 to 2030, in which a uniform annual allocation is initially established at 1.3 acre-feet per acre and then subsequently reduced each year by 0.1 AF per acre until 2030 when the allocation would reach the long-term limit 0.6 AF per acre per year (WWD 2022). For purposes of this analysis, the groundwater supply available to the project is defined as the long-term allocation limit of 0.6 AF per acre per year. (See Section *4.10. Hydrology and Water Quality*, item 'e', for a full discussion of WWD's Groundwater Sustainability Plan.)

The Daylight Legacy Solar Project and Gen-Tie Line will be constructed over 12-month period, resulting in a total water demand of 319 AF, or 0.15 af per acre (i.e., 316 AF for the solar facility and 3 af for the gen-tie line). Water supply for construction would be provided by an onsite agricultural well. The volume of groundwater needed is well below the GSA's 0.6 afy long-term groundwater extraction limit. The Water Supply Assessment (WSA) prepared for the Daylight Legacy Solar Project determined that groundwater supplies available at the site would be sufficient to meet the needs of project construction during normal, dry, and multiple dry years without adversely affecting the sustainability of

the groundwater basin (WRP 2023). As such, the impact of project construction upon available water supplies would be *less than significant*.

Operational water supplies will be provided by Westlands Water District (WWD) through its existing system of lateral pipelines for conveyance of imported surface water. Under the WWD's Rules and Regulations, the Daylight Legacy Solar Facility will be eligible to receive surface water deliveries for operational use. In most years, available surface water from WWD would be sufficient to meet operational needs, but during very dry years when WWD receives 0 surface water deliveries from the Central Valley Project, the project would be eligible to receive groundwater from an onsite well. Under WWD's Groundwater Sustainability Plan (GSP), the project site would be subject to a pumping limit of 0.6 afy per acre, even in dry years, which would be more than sufficient to meet the estimated 7.4 afy (0.0035 af/ac/yr) of operational water demand for the project.

As noted in Section *2.2. Project Description*, curtailment of groundwater pumping to meet the project demand for construction water is not currently foreseen. However, in the unlikely event that such unforeseen curtailment occurs, the relatively small volumes of untreated water that would be temporarily required during construction would be purchased from alternative sources and piped or trucked to the site.

Operational Phase

During project operation, non-potable water will be required for activities such as panel cleaning, washing and rinsing equipment, and other operational uses. As described in Section *2.2. Project Description*, the combined water requirement for all operational activities is estimated to total 7.4 acre-feet annually over the 2,107-acre project site, or 0.0035 af/ac/yr. The gen-tie line would require little or no water supply for operations.

Operational supplies would be provided by Westlands Water District (WWD) through its existing system of lateral pipelines for conveyance of imported surface water from the California Aqueduct. Four of these existing WWD water distribution pipelines pass through or alongside the project site: one which follows the Lansing Avenue alignment through the northern portion of the project site; a second which follows the Lincoln Avenue alignment through the center of the site; and a third which follows the Madison Avenue alignment through the southern portion of the site, and; a fourth which follows the Manteca Avenue alignment along the southern site boundary. Under the WWD's Rules and Regulations, the Daylight Legacy Solar Facility will be eligible to receive surface water deliveries for operational use. In most years, available surface water from WWD would be sufficient to meet operational needs, but during very dry years when WWD receives 0 surface water deliveries from the Central Valley Project, the Daylight Legacy Solar Facility may need to rely on groundwater pumped from an onsite agricultural well. Under WWD's Groundwater Sustainability Plan (GSP), the project site would be subject to a pumping limit of 0.6 af/ac/yr, even in dry years, which would be more than sufficient to meet the estimated 7.4 afy (0.0035 af/ac/yr) of operational water demand for the project. Therefore, surface water entitlements and groundwater allocations available to the project would be sufficient to meet the project's operational needs. As such, the impact of project operations upon available water supplies would be *less than significant*.

In the event that the project is periodically unable to obtain all or a portion of its required surface water supplies, such as during a severe prolonged drought, the project would be expected to obtain operational water from groundwater sources. The 7.4 afy of operational water demand would be

equivalent to 0.0035 af/ac/yr, which is far less the GSA's long-term groundwater extraction limit of 0.6 af/ac/yr. Therefore, the groundwater available to temporarily augment surface water supplies would be sufficient to meet the operational needs of the project. In the unlikely event that such backup groundwater supplies to the project are also curtailed, the relatively small volumes of untreated water required for project operations would be purchased from alternative sources and piped or trucked to the site. As such, the impact of project operations upon groundwater resources would be *less than significant.*

Decommissioning Phase

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 as it is during initial site grading. The source of water during decommissioning is expected to be from the existing onsite agricultural well or another well in the vicinity. The total groundwater pumped during decommissioning of the solar facility and gen-tie line is expected to be substantially less than the estimated 319 acre-feet required during project construction. Even assuming that water demand during decommissioning would be same as during construction, this would represent an average volume of about 0.15 af per acre over the project site and gen-tie corridor. Assuming decommissioning would require one year or less to complete, this would result in a water consumption rate of 0.15 af/ac/yr. Since this would be substantially less than the GSA's long-term groundwater extraction limit of 0.6 af/ac/yr, the project water demands during decommissioning would not result in overpumping or exceedance of the sustainable yield of the groundwater basin.

As discussed for project construction above, curtailment of groundwater pumping to meet the project demand for water during the decommissioning phase is not currently foreseen. However, in the unlikely event that such unforeseen curtailment occurs, the relatively small volumes of untreated water that would be temporarily required during the decommissioning phase would be purchased from alternative sources and piped or trucked to the site.

In summary, the groundwater and surface water supplies available for project construction, operation, and decommissioning are sufficient to meet the needs of the project without new or expanded entitlements to water. Therefore, the impact of the Daylight Legacy Solar Project and Gen-Tie Line upon available water supplies would be *less than significant*.

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, operation, and decommissioning. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. For most cumulative projects, construction water would be supplied by existing agricultural wells in the area. It is estimated that construction water demand for each project would be approximately 0.15 af/ac/yr, similar to that for the Daylight Legacy Solar Project and Gen-Tie Line. As mentioned, the GSA's long-term groundwater extraction limit is 0.6 af/ac/yr. Therefore, even if the other cumulative projects in the vicinity were constructed

concurrently with the Daylight Legacy Solar Project, the groundwater pumping rate would be below the GSA's long-term extraction limit of 0.6 af/ac/yr in each project case, such that the cumulative impact of groundwater pumping during construction would be also less than significant.

The operational water supplies for each project would be mainly used for panel washing. As discussed in in Section *4.10. Hydrology and Water Quality*, operational water demands for the proposed project are estimated to be approximately 0.0035 af/ac/yr, or about 2.3 percent of annual construction water demands. As discussed above, the Daylight Legacy Solar Project's operational demands would be met from imported surface water delivered through Westlands Water District, although there is a possibility that well water may be utilized as backup supply during times of drought when there may be shortages of imported water. Assuming that the cumulative projects in the project's groundwater basin, including the Daylight Legacy Solar Project, all rely solely on well water for operational needs, the cumulative operational water demands of about 0.0035 af/ac/yr would be substantially below the GSA's long-term groundwater extraction limit of 0.6 af/ac/yr. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 wastewater from the Daylight Legacy Solar Project would be conveyed to an on-site septic tank and leachfield system for on-site treatment and disposal. The septic and leachfield system at the Daylight Legacy Solar Project will be designed in accordance with the Kings County Plumbing Code and the Local Area Management Program (LAMP) as approved by the State Water Resources Control Board (SWRCB), and would subject to the approval of the Kings County Community Development Agency and Environmental Health Services Division, which would ensure compliance with all applicable standards in order to avoid impacts to groundwater quality (see item 'a' above for detailed discussion). Since the wastewater disposal requirements of the Daylight Legacy Solar Project would be adequately served by a dedicated on-site septic system, it would not be served by community wastewater treatment provider. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 is addressed in Section *4.9. Hazards and Hazardous Materials*.]

Construction Phase

During construction of the solar facility and gen-tie line, 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 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 Daylight Legacy 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 2023a).] Thus construction of the 300 MW solar facility and gen-tie line would generate approximately 7,950 tons (or cy), or 44.2 tons per workday on average (over the 12-month construction period [180 work 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 2023b). It is assumed that 65 percent of the construction waste would be recycled as required under the CALGreen Code (CBSC 2023). Thus approximately 2,782.5 tons (15.5 tons per day) of construction waste from the project would be disposed of at a Class III landfill. The 15.5 tons of daily construction waste generated by the project would represent about 4.7 percent of the current the combined daily average solid waste disposal (approx. 329 tons per day) at the two area landfills. 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 2,782.5 tons (or 2,782.5 cy) of non-recycled construction waste generated during the construction period would represent 0.019 percent of the approximately 14.5 million cy of remaining capacity of the Chemical Waste Management Landfill, or 0.009 percent of the approximately 30.0 million cy of remaining capacity of the Avenal Regional Landfill, or approximately 0.006 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.

Operational Phase

During operation of the Daylight Legacy 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 operation of the gen-tie line would generate little or no 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 Daylight Legacy 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 270 cubic yards, or approximately 67.5 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 33.75 tons (135.0 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 44.55 cy per year of utilized landfill capacity (CalRecycle 2014). The 33.75 tons of solid waste landfilled by the project annually (0.1875 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 329 tons (or 434 cy compacted) per day, and which would remain well below the combined 8,000 tons per day permitted limit for both landfills. The total solid waste generated by operation of the solar facility over its 40-year life which would be landfilled would be approximately 1,782 cy (assuming compaction and 50 percent diversion), or 1,350 tons. Both the daily disposal rate and the total non-hazardous solid waste generated by the operation of the Daylight Legacy Solar Project would represent small increases in solid waste accepted at the Chemical Waste Management Landfill and the Avenal Regional Landfill.

Decommissioning Phase

At the end of its useful life, the Daylight Legacy Solar Facility and Gen-Tie Line 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 2,783 cy (or 2,783 tons) to be disposed would represent about 8.5 days of disposal at the two landfills at current disposal rates. It is expected that sufficient landfill capacity will be available in 40 years to accommodate this solid waste when the Daylight Legacy Solar Facility and Gen-Tie Line are 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 in the County, as required by the California Integrated Waste Management Act (CalRecyle 2023c). 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 the solar facility over its 40-year life which would be landfilled would be approximately 1,782 cy (assuming compaction and 50 percent diversion), or 1,350 tons. When combined with the 2,783 cy (or 2,783 tons) of construction waste generated during that period (assuming 65 percent diversion), plus a roughly equivalent amount generated during decommissioning, the total landfilled solid waste from construction, operation, and decommissioning of the Daylight Legacy Solar Project would be about 7,348 cy (compacted), or 6,916 tons. As discussed under 'Setting,' the combined capacity remaining at the Chemical Waste Management and Avenal Landfills is approximately 44.5 million tons. The total amount of solid waste disposed by the Daylight Legacy Solar Project would represent 0.016 percent of the remaining

disposal capacity, or the equivalent of about 21 days of the volume of solid waste currently accepted at the two landfills. Thus, the solid waste generated by the Daylight Legacy Solar Project and Gen-Tie Line would not appreciably shorten the operating life of the Kings County landfills.

In summary, the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line'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 Daylight Legacy 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 Daylight Legacy 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 in Mitigation Measure AG-2, which will be carried forward as a condition of approval for the project's Conditional Use Permit.

The Daylight Legacy Solar Project would generate an estimated total of 26,700 cy of solid waste during construction, operation, and decommissioning over the 40-year life of the project. This total volume of solid waste would be reduced to 7,348 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 of 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 who 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 and the Hazardous Materials Management Plan to be prepared for the project, and in compliance with federal, State, and local laws. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would have *no impact* in terms of compliance with applicable laws and regulations related to solid waste.

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4.20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

Environmental Setting

The three main factors that create the conditions for wildfire include fuel, topography, and weather. Fuel sources include natural vegetation such as trees, brush, and grasses, as well as crops such as oats and barley, and human-made structures and landscaping. Sloping topography can increase fire spread due to the tendency of heat to rise by convection, and impedes the ability of fire crews to access fires quickly. Weather conditions, such as heat, relative humidity, and wind affect the potential for wildfires to be initiated, sustained, and spread.

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 2023). The nearest areas mapped as being within the SRA are located southwest of State Route 33, approximately 14 miles southwest of the Daylight Legacy 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 Daylight Legacy Solar Project site.

CAL FIRE'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 9 miles southwest of the project site, and there are no areas in the Kings County LRA that are zoned Very High Severity (CAL FIRE 2023a).

Historically, almost all wildland fires in the project vicinity have occurred in the Kettleman Hills at least 10 miles southwest of the project site. The only exception is the Braley-Jones Ranch fire which occurred

along the east bank of the Kings River near Stratford in 1951. The most recent wildfire in Kings County was the Skyline fire in the Kettleman Hills in1996 which burned the hillsides southwest of Interstate 5 and northwest of SR-41 (CAL FIRE 2023b).

The Health and Safety Element of the Kings County General Plan includes a map of Potential Fire Hazards which shows approximately 100 acres at the western edge of project site as lying "within 2400 meters [1.5 miles] of a high threat" of fire, likely associated with the nearby Shannon Ranch complex to the west. On the remaining 95 percent of the site, approximately half the lands are mapped as lying "within 2400 meters of a moderate threat" with the remaining half of the project site mapped as being subject to "little or no threat." The entire gen-tie corridor is mapped as being subject to "little or no threat" (Kings County 2010e). The most likely fire threat would be from a potential structure fire at the Shannon Ranch.

Regulatory Context

LOCAL

Kings County Emergency Operations Plan

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).

Kings County General Plan Health and Safety Element

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 SR-41 and SR-198, and the secondary evacuation routes include Avenal Cutoff Road, Laurel Avenue and Kansas Avenue (Kings County 2010e). The primary access routes to the project site would be Avenal Cutoff Road and Laurel Avenue.

Kings County Fire Code

Kings County has adopted the 2019 California Fire Code as the Fire Code of Kings County, the purpose of which is to regulate and govern the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises in the county, and to provide for the issuance of permit and collection of fees related thereto. The Kings County Fire Department has specific additional requirements for the design and operation photovoltaic facilities which are imposed as conditions of approval for CUPs on solar projects.

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?

Less-than-Significant Impact. The Daylight Legacy Solar Project site and gen-tie corridor are not located in or near a state responsibility area or on or near lands classified as Very High Fire Hazard Severity Zone. As noted, most of the project site is mapped as lying within a low or moderate fire hazard area, which reflects low fire threat posed by the site's relatively flat topography and low fuel loads. The western corner of the project is mapped as being in the proximity of a high fire threat, most likely due to the potential for structure fire at the nearby Shannon Ranch. Any such fire would be suppressed quickly and would be unlikely to spread to the project site given the separation provided by the intervening Avenal Cutoff Road which would serve as an effective fire break. This separation, along with fire prevention and suppression measures required for the solar project, would reduce the risk of wildland fire at the Daylight Legacy Solar Project and Gen-Tie Line to a *less than significant* level.

The construction and operation of the Daylight Legacy Solar Project and Gen-Tie Line 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 entrances 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 processes (see Section *4.15. Public Services*). Also, the Daylight Legacy Solar Project would not be considered a critical facility to provide essential services during and after a disaster. As such, the Daylight Legacy Solar Project and Gen-Tie Line 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 arterial roadways in the area would serve as secondary routes. In the project vicinity, the primary evacuation routes include SR-41, SR-198, SR-269, and I-5, and the designated secondary routes consist of Avenal Cutoff Road and Laurel Avenue (Kings County 2010e). These nearby State highways and County roads provide several alternative escape routes with relatively low ambient traffic volumes. Laurel Avenue would provide the main escape route for the project. The Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line is not located in or near state responsibility areas or on lands classified as very high fire hazard severity zone, and 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*.

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?

Less-than-Significant Impact. The Daylight Legacy Solar Project and Gen-Tie Line are not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard Severity Zone. The exposed ground at the solar facility would be seeded with annual grasses, but the facility operator would adhere to the County requirement that vegetation height not excess four inches, so fuel loading would be low. The site topography is virtually flat and high wind speeds are uncommon, so these factors would not exacerbate wildfire conditions or contribute to uncontrolled spread of wildfire. Given the low potential for wildfire at the project site, the few operational staff at the solar facility would be subject to a very low risk of exposure to pollutant concentrations from a wildfire. Therefore, the Daylight Legacy Solar Project and Gen-Tie Line would have a *less-than-significant* impact in this regard.

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?

Less-than-Significant Impact. The Daylight Legacy Solar Project and Gen-Tie Line are not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard Severity Zone. The project would include conduits and cables to convey the electricity generated by the solar arrays, as well as electrical equipment such as power conversion stations, substations, and battery storage systems. All of this equipment would be manufactured, installed, and maintained in accordance with all applicable fire codes and standards (see Section *4.15. Public Services*). As mentioned, the height of on-site vegetation would be controlled to avoid interference with electrical equipment. The project would include perimeter driveways around each phase of development which would provide fire breaks around and within the project site. The project includes a 24-foot wide access gate and setbacks from the solar arrays that would provide direct access for emergency equipment. The entry gate would have a Knox box to allow 24- hour access for emergency responders. In addition, a 10,000 gallon water tank would be installed, as required by the County Fire Department, to provide a water source for emergency fire access. Water would be sourced from an onsite well or from surface water provided by Westlands Water District's water pipelines running through the site.

The operation of the completed gen-tie line would pose negligible fire hazard. High-voltage gen-tie lines are designed to withstand strong winds and vegetation clearance requirements would ensure separation from vegetation as potential ignition source. Lower-voltage distribution lines have a greater potential for igniting fires due to closer spacing of conductors and proximity to trees and other vegetation which can cause electrical arcs on contact. Explosions in pole-mounted transformers are also a common cause of fire associated with distribution lines, while high-voltage gen-tie lines do not have transformers. Large birds can cause electrical arcs on distribution lines when their wings touch

two conductors simultaneously, which can ignite feathers and start grass fires when the birds fall to the ground. On gen-tie lines, this does not pose a hazard since conductors are spaced apart at greater distances than the wingspan of the largest birds. In summary, the potential for energized gen-tie lines to be a source of wildfires is negligible, and the potential hazard from wildfires generated by the gen-tie line is low.

In summary, although the Daylight Legacy Solar Project and Gen-Tie Line include installation of infrastructure, it would not exacerbate fire risks, and the impact would be *less-than-significant*.

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?

Less-than-Significant Impact. The Daylight Legacy Solar Project and Gen-Tie Line are not in or near a State Responsibility Area or on or near lands classified as Very High Fire Hazard Severity Zone. As discussed in detail in Section *4.15. Public Services*, the construction and operation of the solar facility would occur in strict compliance with all fire codes, standards, and County requirements which would ensure implementation of appropriate fire prevention and fire suppression measures. Given also that the project site is virtually flat and has no landslide potential, there is virtually no risk that the post-fire rainfall events would result in downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, the impact associated with Daylight Legacy Solar Project and Gen-Tie Line in this regard would be *less-than-significant*.

REFERENCES – WILDFIRE

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4.21. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No Impact
a)	***Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***	☐	■	☐	☐
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.)***	☐	■	☐	☐
c)	***Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?***	☐	■	☐	☐

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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line, 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 Daylight Legacy Solar Project and Gen-Tie Line 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 July 2023 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 but one of the projects listed in Table MSF-1 comprise solar PV generating facilities, with the exception being the Outlaw Energy Storage Project. 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 eastern Kings County, and Jackson Ranch Specific Plan in southern Kings County), or projects for which development applications have been formally withdrawn or closed due to inactivity (e.g., Quay Valley new community project). As such, 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 Daylight Legacy Solar Project and Gen-Tie Line.

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.

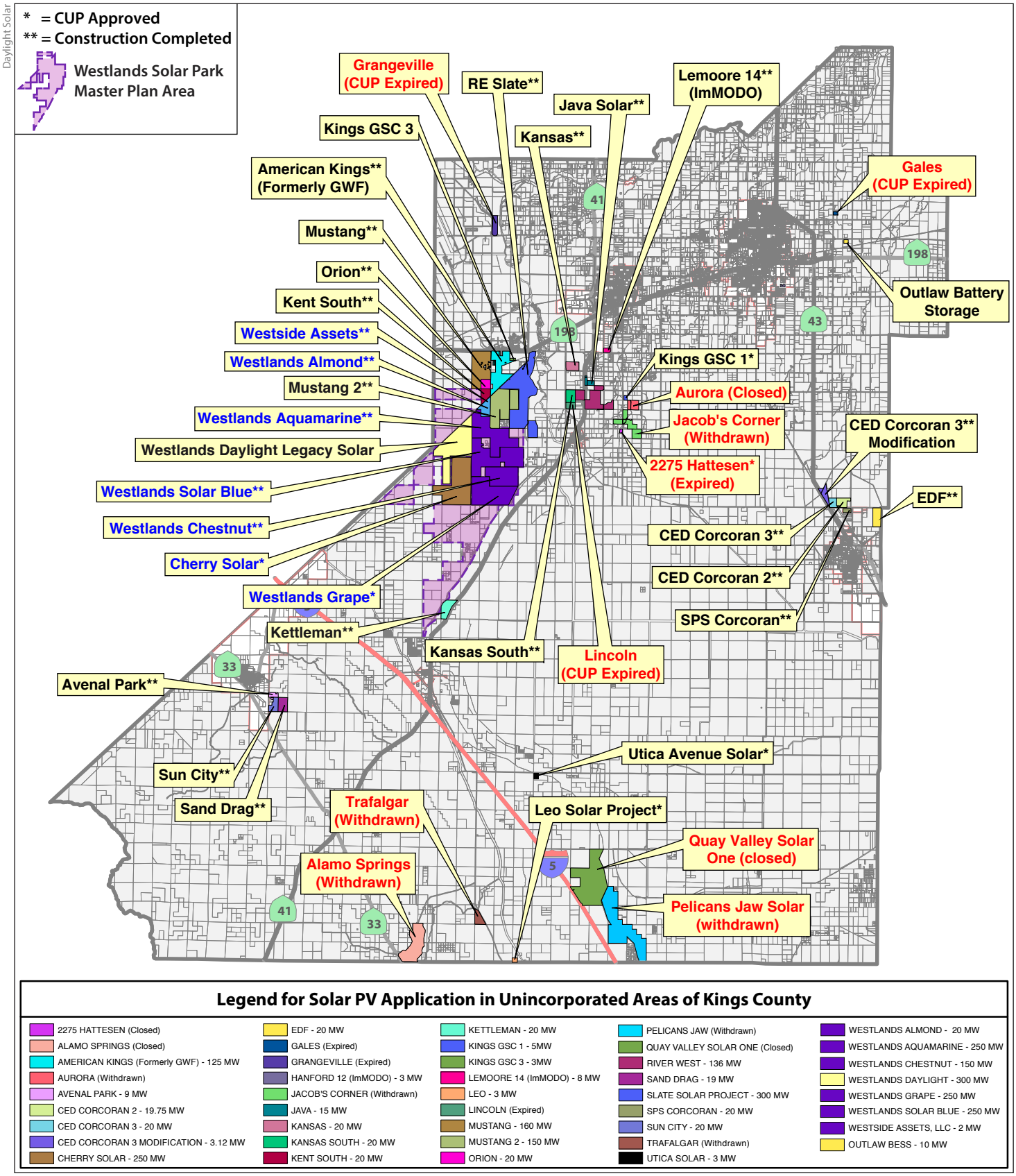
The following is an evaluation of cumulative impacts by environmental topic. As shown in Table MFS-1, most of the cumulative projects have been approved and constructed. However, in order to capture the cumulative effects of past, current, and future projects, as required under CEQA, the following discussion includes evaluation of these "past" projects even though they are not separately addressed in the past tense.

TABLE MFS-1
PENDING, APPROVED, AND COMPLETED SOLAR PV PROJECTS

Project	Acreage	Generating Capacity (MW)	Status (As of 12/15/23)
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
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	Constructed
Westlands Castanea (Chestnut)*	1,080	150	Constructed
Westlands Grape*	1,759	250	CUP Approved
Westlands Almond*	168	20	Constructed
Cherry Solar	2,079	250	CUP Approved
Utica Avenue Solar	30	3	CUP Approved
Kings CSG 1 Solar	30	5	CUP Approved
Kings CSG 3 Solar	20	3	CUP Approved
Daylight Legacy Solar*	2,107	300	Pending
Outlaw Battery Energy Storage**	10	100	Pending
Totals	**20,837**	**2,736**	

* Projects located within Westlands Solar Park. ** Energy storage only – no generation.

Source: Kings County CDA, January 2024.



Source: Kings County Community Development Agency, December 2023

Pending, Approved, and Completed Solar Projects

Figure MFS-1

Aesthetics

The Daylight Legacy Solar Project and Gen-Tie Line and the other cumulative solar projects are generally located in areas with relatively low visual quality and without significant scenic resources in their vicinities. While the solar generating facilities would represent a visual change to the predominantly agricultural character of their settings, the low profile of the solar facilities would not be out of scale with their rural surroundings, and the narrow profile of their associated gen-tie lines would have a minor visual effect. 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. In the vicinity of the Daylight Legacy Solar Project site, there are 13 other solar projects generally clustered along the 25th Avenue alignment. Of these, 11 projects have been constructed, including the Kent South, Orion, Mustang, Westside (Phase 1), American Kings, Mustang Two, Slate, Aquamarine, Almond, Solar Blue, and Chestnut (Castanea) solar projects. The two remaining solar projects – Grape and Cherry solar – have been approved but not yet constructed. Upon full completion, all of these 13 projects and the proposed Daylight Legacy Solar Project will occupy a combined area of about 17,693 acres. Overall, the low profile of the solar arrays would not be out of place in the rural setting. With the exception of the Daylight Legacy Solar Project, these projects would not be visible from any agricultural residences. The Daylight Legacy Solar Project would be approximately 200 feet east and across Avenal Cutoff Road from the nearest residences in the Shannon Ranch complex, but an existing stand of dense and tall mature landscape trees would visually screen the Daylight Solar Project from the dwellings in the Shannon Ranch. The next nearest dwellings to these cumulative projects are located over 0.25 miles east, 2.0 miles northeast, 1.5 miles west, and 1.0 mile northwest of the combined project areas. (The nearest residence, located 0.25 miles east of the Slate Solar Project on the north side of Laurel Avenue, is surrounded by pistachio orchards which would block views of this and any other solar projects in the vicinity.) The American Kings and Mustang solar projects are located 300 feet south of the nearest base housing at NAS Lemoore across SR-198. This residential community is essentially urban in character and is bordered by the busy SR-198 freeway corridor on the south. The introduction of the solar arrays to the visual setting, across the freeway corridor, would represent a visual change to the southern tier of homes at the base. However, given the low profile of the solar facilities and the existing urbanized character of the NAS Lemoore residential community, and the intervening freeway corridor, this visual change would not represent a significant aesthetic impact associated with the American Kings or Mustang solar projects. None of the other cumulative solar projects in the vicinity, including the Daylight Legacy Solar Project, would be visible from the NAS Lemoore base housing. As such, there would not be a cumulatively significant aesthetic impact upon the base housing from the cumulative solar projects. 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*.

All of the cumulative projects would include minimal and non-intrusive lighting for security, and the solar modules at all of the cumulative projects would be non-reflective and non-glare producing. While several cumulative projects would be in proximity to each other, such as those referenced above, the combined lighting and glare from these projects would not be substantial. 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. Some of the cumulative sites, such as the Daylight Legacy Solar Project site, are mapped as Farmland of Statewide Importance under the California Department of Conservation's Farmland Mapping and Monitoring Program. Most of the cumulative projects, including the Daylight Legacy Solar Project, would incorporate dry-land farming with sheep grazing as part of their operations. At the end of their productive lives, all of the cumulative solar projects, including the Daylight Legacy 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 in accordance with mitigation measures similar to MM AG-2 and MM AG-3, as set forth for this project in Section *4.2. Agriculture and Forestry Resources*. As such, none of the cumulative projects would result in the permanent conversion of Farmland to non-agricultural uses. Likewise, none of the cumulative projects would otherwise result in the conversion of Farmland to non-agricultural use. The incremental effects from the collective operations of the solar projects upon agricultural resources would not be cumulatively significant, and the project *contribution would not be considerable*.

All of the cumulative projects, including the proposed project, are located in agricultural zoning districts that permit solar generating facilities as a conditionally permitted use. All of the cumulative 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 projects, including the Daylight Legacy Solar Project, are subject to Land Conservation contracts or Farmland Security Zone contracts under the Williamson Act. All of these 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. All of the cumulative projects that elect to pursue the compatibility options, including the Daylight Legacy Solar Project, would maintain sufficient on-site agricultural productivity to meet the State and County principles of compatibility under the Williamson Act, similar to that provided in MM AG-1. 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 solar 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 Daylight Legacy 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 (including emissions associated with the gen-tie line) of ozone precursor pollutants (ROG and NO_x) and PM_{10} were found to be less-than-significant for the proposed project with mitigation, 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 2015, 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 its PM_{10} 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 PM_{10} emissions and toxic air contaminants (TACs) from construction activity. Construction period PM_{10} emissions would be localized. As shown in Table AQ-2, the combined construction exhaust and dust emissions from the Daylight Legacy Solar Project and Gen-Tie Line would be less than the PM_{10} significance threshold of 15 tons with mitigation (i.e., dust controls). Since the total PM_{10} emissions would be below the total PM_{10} significance threshold, construction period total PM_{10} emissions impacts would be less than significant for the Daylight Legacy Solar Project.

In evaluating cumulative PM_{10} emissions, only those projects in the immediate project vicinity are considered because PM_{10} concentrations disperse rapidly from the source. In the project vicinity, there are two other solar projects that have been approved or are pending approval but have not yet been constructed. These include the Grape and Cherry Solar projects directly to the south and southeast. It is unlikely that the construction of the Daylight Legacy Solar Project and Gen-Tie Line would overlap with the construction of either of these nearby solar projects, especially since all three projects have the same project proponent. These projects are planned by the project proponent to be constructed sequentially, so their construction schedules would not overlap. There are no other solar projects in the vicinity which could be under construction at the same time as the Daylight Legacy Solar Project. In the unlikely event that the construction of Grape and Cherry Solar projects were to overlap with construction of the Daylight Legacy Solar project, the combined PM_{10} concentrations at the nearest common receptors at the Shannon Ranch would be negligible. This is because the Cherry and Grape Solar projects are located at least 1.0 mile and 2.4 miles and downwind of the Shannon Ranch, and because PM_{10} concentrations disperse rapidly from the source. Even under adverse wind conditions, PM_{10} concentrations from the Cherry and Grape Solar projects would be greatly diminished by the time they combined with PM_{10} emissions from the

Daylight Legacy Solar Project at the common off-site receptors at the Shannon Ranch. Therefore, the cumulative PM_{10} impact associated with the project would *less-than-significant*, and the project's contribution to cumulative PM_{10} 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 a 70 percent drop-off in DPM concentrations at approximately 500 feet from the source (BAAQMD 2017, p. 8-7). This is reflected in the screening tables prepared by the Bay Area Air Quality Management District (BAAQMD) to determine distances where TAC exposures would be reduced to less than significant levels. For the largest construction projects, the recommended distance is up to 1,000 feet from the sensitive receptor location (BAAQMD 2010, p. 9). Thus multiple sources of DPM emissions must all be proximate to a receptor to have a significant additive effect to DPM concentrations at the receptor site. Even the nearest sensitive receptors to the Daylight Legacy Solar Project would be subject to increased cancer risk of less than 2.5 cases in one million from project construction, operation and decommissioning. Most DPM emissions from the project would disperse into the atmosphere before reaching the next nearest sensitive receptor locations.

The SJVAPCD's TAC significance criterion for an individual project is an increase in cancer risk of more than 20 new cancer cases per million persons as measured over a 70-year lifetime for the maximally exposed individual (SJVAPCD 2015b). For context, it is noted that the lifetime cancer risk to the population from all sources is approximately 250,000 cases per million (or 1 case per 4 individuals)(SJVAPCD 2015c, p. 100). The 20 per million significance criterion is applied to individual projects where there is a potential for a significant health impact to nearby sensitive receptors. This same significance threshold is applied by SJVACPD for cumulative TAC impacts, although the Air District considers it to be stringent (SJVAPCD 2015c, p. 110).

The nearest residential receptors to the Daylight Legacy Solar Project site comprise the 20 dwellings at the Shannon Ranch complex, the nearest of which is located approximately 200 feet northwest of the project site. The nearest approved and pending solar projects which could potentially contribute TAC emissions at this receptor location are: the Cherry Solar Project located 1.0 mile southeast of the nearest Shannon Ranch dwellings; the Solar Blue Project located 1.8 miles east; the Aquamarine Solar Project located 2.0 miles northeast; the Grape Solar Project located 2.4 miles southeast; and the Chestnut/Castanea Solar Project located 3.0 miles southeast of the nearest Shannon Ranch dwellings. (Although these projects would not be constructed concurrently with each other or the Daylight Legacy Solar Project, they are included in this analysis since TAC analyses consider the lifetime exposure of the receptors without regard to construction schedule.) At these distances, the increased cancer risk at the Shannon Ranch receptor location from each of these other projects would be far less than 2.5 cancer cases per million associated with the Daylight Legacy Solar Project. Under a very conservative assumption that each of these projects (which are all similar in size to the Daylight project) would result in a cancer risk rate of no more than 2.5 per million (and likely far less), and that the cancer risks associated with individual projects can be aggregated in absolute terms, the combined lifetime exposure from TAC emissions at the Shannon Ranch dwellings from all six projects (including daylight) would be less than 15.0 cancer cases per million, which is well below the significance threshold of 20 cases per million. Thus it is not expected that the cumulative effects would result in a significant increase in cancer risk at the nearest sensitive receptor subject to diesel emissions from other solar projects in the vicinity of the Daylight Legacy Solar Project. Therefore, the cumulative health risk impact associated with the

Daylight Legacy 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, migratory birds, and American badger. Mitigation measures MM BIO-1 through MM BIO-5 are specified in the event potential impacts to these species are identified at the Daylight Legacy Solar Project site and gen-tie corridor 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 or during 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*.

As discussed in Section 4.4, there is a potential cumulative impact to foraging habitat for Swainson's hawk. As part of its biological assessment for the Program EIR on the Westlands Solar Park Master Plan and Gen-Tie Corridors Plan, conducted in 2017, LOA completed a comprehensive analysis of potential impacts to Swainson's hawk foraging habitat associated with development of the WSP Master Plan area and all other approved, pending, and completed projects within a 10-mile radius of the WSP plan area (WWD 2017). The analysis identified all known Swainson's hawk nests that were previously observed during surveys by LOA or others. In 2018 and 2019, LOA biologists conducted follow-up surveys to identify currently active nests. It was concluded that there are currently 37 nesting pairs of Swainson's hawks within the 10-mile radius study area. In 2023, LOA biologists also reviewed and updated their detailed 2017 analysis of foraging habitat within a 10-mile radius of the WSP plan area and concluded that abundant habitat would remain after full development of the WSP plan area, and all other cumulative projects (including projects proposed since 2017) within this 10-mile radius, would be more than sufficient to support all of the 37 known Swainson's hawk nests within this radius, with surplus capacity to support additional nesting pairs. The full analysis is contained in Appendix A of LOA's biological report, which is contained in Appendix B of this document, and is summarized below.

LOA's analysis of potential cumulative impacts to Swainson's hawk foraging habitat employed a study methodology established by Estep Environmental Consulting (Estep), and which has been applied in similar studies on other solar projects in Kings County. The first step in this analysis was to make a determination as to the amount of surplus foraging habitat available that is not considered to be required by existing Swainson's hawks that are currently nesting in the area. Based on LOA's 2023 application of Estep's methodology, it was calculated that there is currently a surplus of 132,193 acres of suitable foraging habitat within the study area. (See LOA's Biological Assessment in Appendix B of this document for a full description of the habitat calculations.)

In order to determine the potential cumulative impacts to foraging habitat, all of the pending, approved, and completed solar projects within the study area were identified and mapped. It was determined that the 26 cumulative projects (including the Daylight Legacy Solar project) occupy a total of 35,799 acres within the study area (this includes the entire WSP plan area of 20,938 acres).

However, the USDA Cropland Data Layer (CDL) which was utilized in the LOA analysis (see Figure 1 in Appendix A of the LOA report) shows 13 of the above-listed projects as developed, representing a combined area of 4,203 acres. Thus the cumulative total land area for the remaining undeveloped projects, including the Westlands Solar Park (which is shown as entirely undeveloped in the CDL), is 31,596 acres. For purposes of analysis, this entire acreage was conservatively assumed to comprise suitable foraging habitat, whereas the actual total would be less after subtracting acreage in tree crops and vineyards which provide little or no foraging value for Swainson's hawks.

In order to determine if this cumulative loss of foraging habitat represented a significant cumulative impact, Estep established that a reduction of surplus habitat to less than 70 percent relative to pre-project conditions would represent a cumulatively significant impact (Estep 2012). As presented in LOA's Biological Assessment (see Appendix B of this document), it was calculated that the cumulative projects would reduce the total surplus foraging habitat in the study area to 100,597 acres (i.e., 132,193-acre pre-project surplus minus 31,596 acres cumulative loss). This remaining acreage of surplus foraging area represents 76.1 percent of the pre-project total. Since the remaining surplus foraging acreage is greater than 70 percent of the pre-project surplus foraging acreage in the study area, the cumulative impact to the Swainson's hawk foraging acreage in the study area was determined to be *less than significant*. Therefore, the cumulative impact on Swainson's hawk foraging habitat would be less than significant, and the project *contribution would not be considerable*.

The Daylight Legacy Solar Project site and gen-tie corridor 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, all of the cumulative projects would be subject to mitigation measures similar to those identified for the Daylight Legacy Solar Project and Gen-Tie Line 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 represent 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line, 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 low probability that any previously undiscovered paleontological resources are present at any of the cumulative project sites. This is because the surface Holocene material that covers all the cumulative sites is too recent to contain fossils, although fossils may be present at depth within the older Quaternary material. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 offset an equivalent amount of existing fossil-based generation. The construction and operation of the Daylight Legacy Solar Project and Gen-Tie Line would generate some greenhouse gas emissions from fossil-fueled vehicles and equipment; however, these emissions would not exceed any screening thresholds for significance and therefore would not be significant at the project-specific level. Since most of the other cumulative projects would be approximately the same size as the Daylight Legacy Solar Project or smaller, the GHG emissions impacts from the individual cumulative projects would likewise not exceed screening thresholds of significance. 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*, and the project would make *no contribution* to an adverse cumulative effect.

Hazards and Hazardous Materials

Each of the cumulative sites, including the Daylight Legacy Solar Project site and gen-tie corridor, 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 at the project, 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 the 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 related 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 Daylight Legacy 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. 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 Daylight Legacy Solar Project and Gen-Tie Line, 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 Daylight Legacy Solar Project site and gen-tie corridor 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 Daylight Legacy Solar Project site and gen-tie corridor are not subject to flooding or inundation, the project would *make no contribution* to any cumulative flooding impact.

With respect to groundwater supplies, each cumulative project, including the Daylight Legacy Solar Project and Gen-Tie Line, would require water during construction, operation, and decommissioning. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. For most cumulative 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 0.15 acre-feet per acre. (Since a typical large solar project, like Daylight Legacy, would have a construction schedule of one year or less, water demand would equal 0.15 af/ac/yr.) In the groundwater basin beneath the project area, the Groundwater Sustainability Agency (GSA) has established a long-term groundwater extraction limit of 0.6 af/ac/yr. Therefore, even if the other cumulative projects in the vicinity were constructed concurrently with the Daylight Legacy Solar Project, the collective groundwater pumping rate would not exceed the GSA's goal for groundwater pumping. The operational water supplies for each solar facility would mainly be used for panel washing. As discussed in in Section *4.10. Hydrology and Water Quality*, operational water demands for the Daylight Legacy Solar Project are estimated to be approximately 0.0035 af/ac/yr. Even if it is assumed that the cumulative projects in the project's groundwater basin, including the Daylight Legacy Solar Project, would rely solely on groundwater for operational needs, the collective water demands would be substantially below the GSA's long-term groundwater extraction limit of 0.6 af/ac/yr. Therefore, the cumulative projects would not deplete groundwater supplies. In addition, since all of the cumulative projects would retain 90 percent or more of their site areas in permeable vegetated cover, the projects would not interfere with groundwater recharge, individually or collectively. Therefore, 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 Daylight Legacy Solar Project and Gen-Tie Line 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 projects include solar generating facilities as allowed uses. All of the cumulative projects, including the Daylight Legacy Solar Project, are located either in agricultural zoning districts that permit solar generating facilities. All of the cumulative solar projects meet the required County Development Code requirements for conditional use permits for solar facilities. 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

The Daylight Legacy Solar Project site includes one plugged and abandoned oil/gas well within the project site. The project site plan provides for equipment and vehicular access to the well site, as well as an ample clear area around the well. The site plan also includes other clear areas which are available to mineral rights holders for resource extraction. Therefore, the Daylight Legacy Solar Project would not result in the loss of availability of oil and gas resources which may be present beneath the site. None of the other cumulative projects are within or near active oil and gas fields. The Cherry Solar Project, directly south of the Daylight Legacy site, includes two inactive oil/gas wells and one plugged oil/gas well, and has provided for well access and clear areas around each well site in the project site plan. The completed American Kings Solar Facility, located 1.8 miles

northeast of the Daylight Legacy site, includes one plugged and abandoned oil/gas well which has been integrated into the solar facility. 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 Daylight Legacy Solar Project and Gen-Tie Line, would result in the loss of availability of other known mineral resources, such as aggregate deposits, since none exist in this part of Kings County. 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 significant cumulative impact to mineral resources*, and the project *contribution would not be considerable*.

Noise

As discussed in Section *4.13. Noise*, the nearest sensitive noise receptors to the Daylight Legacy Solar Project site and gen-tie corridor include the 20 dwellings at the Shannon Ranch complex located directly northwest of the project site across Avenal Cutoff Road. The next nearest noise receptors are the 2 dwellings at the Stone Land Company Ranch located 2.2 miles west of the project site. As discussed in Section *4.13 Noise*, the maximum construction noise generated at the project site would not exceed the County's noise standards at the nearest residences in the Shannon Ranch complex. At the Stone Land Company Ranch, the maximum construction noise generated at the project site would be far below the applicable County noise standards at that receptor location. Traffic generated during project construction would result in slight increase in ambient noise levels along the affected roadways, but as discussed in Section *4.13 Noise*, 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.

During construction, noise generated at the Daylight Legacy Solar Project site and gen-tie corridor could combine with noise generated by other projects in the immediate vicinity and result in cumulatively higher noise levels. As mentioned, other solar projects in the vicinity (e.g., Grape and Cherry Solar) would be completed and operational prior to the construction of the Daylight Legacy Solar Project and Gen-Tie Line. Even if one or more of these nearby projects were constructed concurrently with the Daylight Legacy Solar Project, the maximum cumulative noise level increase at the nearest receptor locations would be less than 1 dBA, such that the cumulative noise level would remain below the County's applicable noise thresholds. Other sensitive receptors in the vicinity that would be located at greater distances from any combined noise sources and would likewise not be subject to cumulatively significant noise increases. Therefore, the incremental noise impacts from the combined construction of the Daylight Legacy Solar Project and other projects would be *less than cumulatively significant*, and the project *contribution would not be considerable*.

Regarding noise from construction traffic, the most affected receptors would be the two dwellings at the Stone Land Company Ranch located 1.5 miles west of the project site on Nevada Avenue. Construction traffic from the Daylight Legacy Solar Project and Gen-Tie Line would not result in a significant increase in noise levels at this receptor location. The only other projects that could contribute construction traffic to Nevada Avenue are the Solar Blue and Chestnut Solar projects; however, those solar projects would be completed prior to the construction of the Daylight Legacy Solar Project and thus would not generate traffic at the same time as the Daylight Legacy Solar Project. 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 Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line and other *cumulative projects would be less than significant*, and the project *contribution would not be considerable*.

Construction activities at the Daylight Legacy Solar Project and Gen-Tie Line would result in ground vibration, and the vibratory pile driving that would take place at the western edge of the project site may be barely perceptible at the nearest residences in the Shannon Ranch complex, but would not be bothersome to persons of normal sensitivity. Vibration levels during construction would not result in damage to structures. Other cumulative projects would generate vibration during construction, but given the absence of nearby sensitive receptors, such vibration would not be perceptible at the nearest residences. Therefore, the combined vibration from construction of the cumulative projects would be *less than cumulatively significant*, and the project *contribution would not be considerable*.

Population and Housing

None of the cumulative projects, including the Daylight Legacy Solar Project, would include a residential component so they would not directly induce population growth in the area. With the possible exception of a few supervisory staff who might relocate to the project area, all of construction and operational workers for the cumulative projects are expected to be drawn from the existing labor pool in the region, and thus the cumulative projects would not indirectly result in population growth. Given the ample vacancy rate in the region (i.e., 30,000 vacant dwellings within 50 miles), any personnel relocating to the project region would find a range of suitable housing available. Additionally, none of the cumulative 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. Therefore, the cumulative projects would result in *a less-than-significant cumulative inducement of population growth* in the area, and the project *contribution would not be 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 Daylight Legacy Solar Project and Gen-Tie Line, would be provided by the Kings County Fire Department. The potential demand for Fire Department services is expected to be very low at each cumulative project site. Thus the collective demand for Fire Department 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 fire services would be less than significant*, and the project *contribution would not be considerable*.

Police projection services for all cumulative projects, including the Daylight Legacy Solar Project and Gen-Tie Line, would be provided by the Kings County Sheriff's Office. The potential demand for Sheriff's Office services is expected to be very low at each cumulative project site. 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 thus 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 Daylight Legacy 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 Daylight Legacy Solar Project and Gen-Tie Line 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. All of 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., Laurel Avenue near the project entrance) would be subject to 80 percent increase in daily traffic west of the project entrance, and a 60 percent increase in daily traffic volumes east of the project entrance, due to project construction traffic. However, due to the very low existing traffic volumes on Laurel 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 0.2 to 6 percent in overall traffic volumes. These increases in traffic volume would only occur during the period of peak construction for the Daylight Legacy Solar Project and Gen-Tie Line. The project traffic contributions would be lower during the non-peak periods of construction on all affected roadways. The project construction traffic would not result in a temporary degradation of Levels of Service 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.

There are two other approved projects (and no other pending projects) in the immediate project vicinity that have not yet been constructed, and which would potentially utilize the same roadway network as the Daylight Legacy Solar Project and Gen-Tie Line. (These projects include Grape and Cherry Solar). It is expected that both of these projects will be completed prior to construction of

the Daylight Legacy Solar Project and Gen-Tie Line. Since it is highly unlikely that there would be a contribution to cumulative traffic from other projects, the *cumulative impact to roadway performance would be less than significant*, and the project *contribution would not be considerable*.

With regard to Vehicle Miles Traveled, the average daily VMT generated by the Daylight Legacy Solar Project and Gen-Tie Line during the 12-month construction period would be equivalent to approximately 1.2 percent of the average daily VMT in Kings County. (However, it is noted that much of project VMT generated by commuting workers and delivery trucks 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. The construction schedules of the cumulative projects are not expected to overlap. However, in the highly unlikely event that the two nearby solar projects (Grape and Cherry) were constructed concurrently with each other and the Daylight Legacy Solar Project, the maximum increase in cumulative VMT may temporarily reach the equivalent of 3 to 4 percent of the daily average Countywide VMT. 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, each project would generate 10 to 20 trips per day, which is 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 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 Daylight Legacy Solar Project and Gen-Tie Line. Large slow moving trucks could result in temporary congestion near the project entrances, 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 Daylight Legacy Solar Project and Gen-Tie Line, would implement traffic control measures similar to those identified in MM TR-1 in Section 4.17 of this IS/MND for the Daylight Legacy Solar Project and Gen-Tie Line. These measures would reduce the potential traffic safety impacts at each cumulative project site to less-than-significant levels. Further, the entrances for each cumulative project are far apart, so that even in the unlikely event that their construction schedules overlap, the construction traffic from each project is unlikely to affect the same roadways. Therefore, traffic safety effects resulting from collective truck traffic at the cumulative projects would be *less than cumulatively significant*, 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 Daylight Legacy Solar Project and Gen-Tie Line 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, operation, and decommissioning. The demand for water at each site would be highest during construction for purposes of dust control and soil conditioning. For most cumulative projects, construction water would be supplied by existing agricultural wells. It is estimated that construction water demand for each project would be about 0.15 acre-feet per acre. (Thus, a typical large solar project with a one-year construction schedule would have a water demand of 0.15 af/ac/yr.) In the groundwater basin beneath the project site, WWD's long-term groundwater extraction limit has been set at 0.6 af/ac/yr in order to maintain sustainable yields. Therefore, even if other cumulative projects in the vicinity were constructed concurrently with the Daylight Legacy Solar Project and Gen-Tie Line, the groundwater pumping rate would not exceed the groundwater extraction limit at each project site, such that the *cumulative impact of groundwater pumping would be less than significant*, and the contribution from the Daylight Legacy Solar Project would be *not cumulatively considerable*.

The operational water supplies for each project would be mainly used for panel washing. As discussed in in Section *4.10. Hydrology and Water Quality*, operational water demands for the proposed project are estimated to be approximately 0.0035 af/ac/yr. It is expected that the Daylight Legacy Solar Project's operational demands would be met from imported surface water delivered through Westlands Water District's water distribution system, although there is a possibility that well water may be utilized as backup supply during times of drought when there may be shortages of imported surface water. Even if it is assumed that the cumulative projects located within the same groundwater basin as the Daylight Legacy Solar Project would all rely solely on well water for operational needs, the cumulative operational water demands of about 0.0035 afy per acre would be substantially below the long-term groundwater extraction limit of 0.6 afy per acre. Therefore, the *cumulative impact to water supplies would be less than significant*, and the project *contribution would not be considerable*.

With respect to wastewater treatment, the Daylight Legacy Solar Project and other large-sized cumulative projects would include O&M facilities with septic and leachfield systems for on-site disposal and treatment of domestic wastewater. These wastewater facilities would be subject to Kings County's design and engineering requirements for septic systems, which would be tailored to each project's soil and groundwater conditions. This would ensure that wastewater generated at the cumulative project sites would not result in water quality impacts. Therefore, the *cumulative impacts with respect to wastewater treatment would be less than significant*, and the project *contribution would not be considerable*.

With respect to stormwater drainage, neither the Daylight Legacy Solar Project nor any of the cumulative projects would include the construction or expansion of stormwater drainage facilities. Since over 90 percent of each project site 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 projects. 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 Daylight Legacy Solar Project and Gen-Tie Line during construction, operation, and decommissioning would be approximately 7,348 cy (compacted), or 6,916 tons.. In order to estimate the total volume of solid waste that would be generated by the cumulative projects, it was assumed that the other cumulative solar projects would generate proportionately similar volumes of solid waste. Using the solar generation capacities of the cumulative projects as a comparison metric, the Daylight Legacy Solar Project represents 11 percent of the total power generation capacity of all of the cumulative projects listed in Table MFS-1. Thus, the total cumulative solid waste generation by the cumulative projects would be roughly 9 times the project rate, for a cumulative total of 66,132 cy, or 62,224 tons. This would represent about 0.15 percent of the total combined remaining landfill capacity of approximately 44.5 million cy at the Chemical Waste Management Landfill and Avenal Regional Landfill. At less than 1 percent of total landfill capacity, the cumulative solid waste impact would be *less than significant*, and the project *contribution would not be considerable*.

Wildfire

With respect to wildfire, neither the Daylight Legacy Solar Project site and gen-tie corridor, nor any of the cumulative project sites is located in or near State responsibility areas or on or near lands classified as Very High Fire Hazard Severity Zone. As such, the Daylight Legacy Solar Project and Gen-Tie Line and other approved and pending projects *would have no cumulative impact under this criterion*, and the contribution of the Daylight Legacy Solar Project and Gen-Tie Line 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 Daylight Legacy Solar Project and Gen-Tie Line would not have the potential to result in significant effects which would cause substantial adverse effects on human beings, either directly or indirectly.

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APPENDIX A

Air Quality Report

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August 2023

DAYLIGHT LEGACY SOLAR PROJECT & GEN-TIE LINE AIR QUALITY ASSESSMENT

Kings County, California

August 10, 2023

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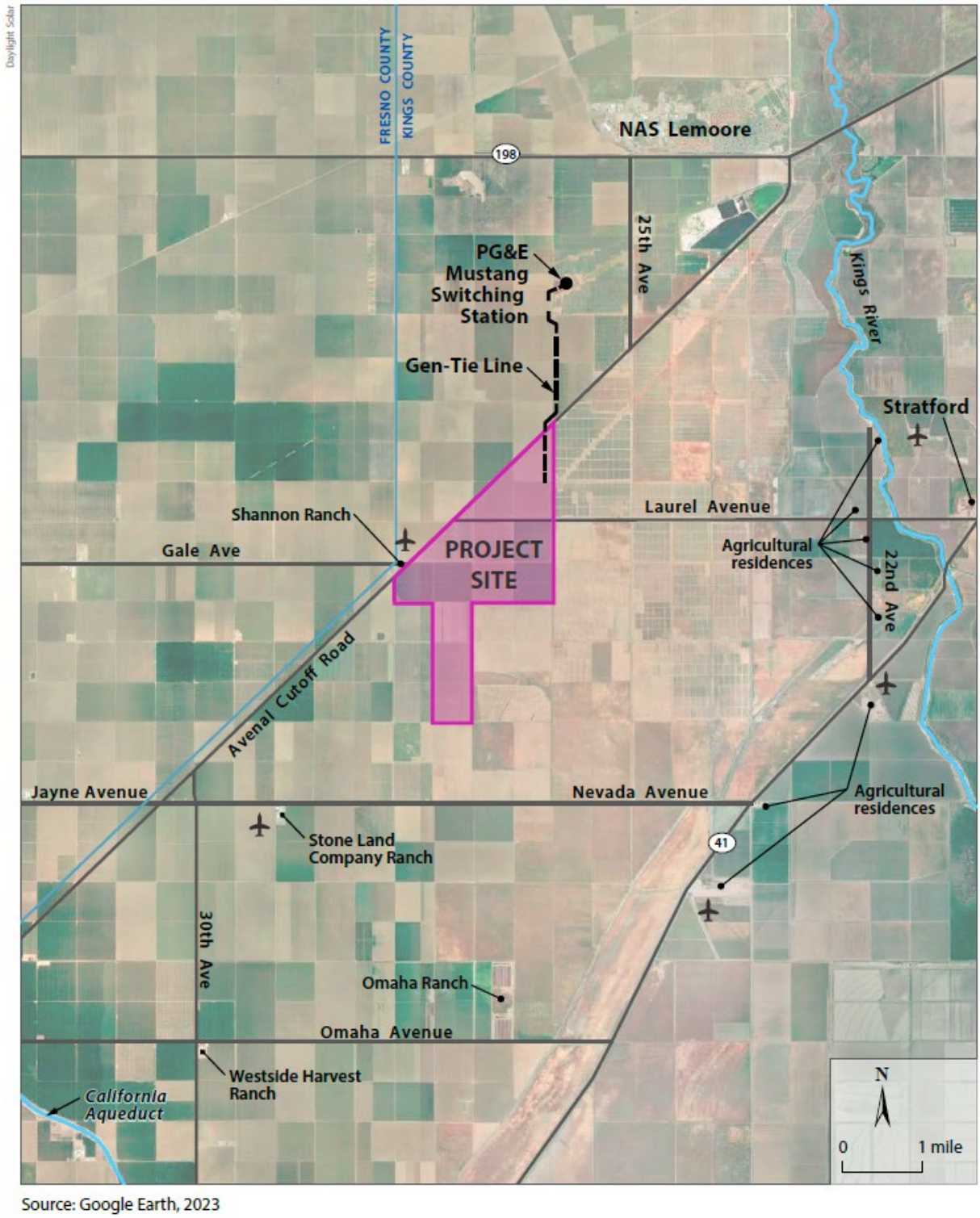
INTRODUCTION

This report assesses the air quality impacts associated with the Daylight Legacy Solar Project proposed in Kings County, California. The Project will occupy an approximately 2,107-acre site generally located on both the north and south sides of Avenal Cutoff Road in southern Kings County, approximately 9.2 miles east of Interstate 5, 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 (SJVAPCD 2015). 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 Daylight Legacy Solar Project is a planned utility-scale solar photovoltaic (PV) facility with a generating capacity of 300 Megawatts (MW). The Daylight Legacy Solar project will be constructed with the solar on the south side and the gen-tie line on the north side of Avenal Cutoff Road in northwestern Kings County, approximately 9.2 miles east of Interstate 5. The solar facility will consist of arrays of solar modules mounted on horizontal single-axis which would be oriented north-south and rotate the solar arrays in an east-west direction. The projet would include a total of 83 power conversion stations (PCSs) trackers with a power rating of 3.75 MW each. The project would also include an electrical substation, a battery storage facilitiy, and an Operation and Maintenance (O&M) facility on the northeastern portion of the site. The on-site battery storage would include 300 pre-fabricated battery containers used to optimize power delivery to the grid. The solar generation from the Facility will be transfeered from the project to a new 230-kV gen-tie line extending from the project substation northward 2.5 miles to the existing PG&E Mustang Switching Station. The gen-tie line would ocupy a 175- to 250-foot wide corridor extending northward from the planned on-site substation for 0.5 mile to the north project boundary, then ctossing over Avenal Cutoff Road and extending a further 2.0 miles within an exclusive easement. The Daylight Legacy Solar Facility is planned to be constructed over a 12- month period in 2025-26. The first full year of facility operation is expected to be 2027.



Source: Google Earth, 2023

Figure 1. Daylight Legacy 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 2015). 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 (SJVAPCD 2015). 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 (PM_{10}) 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 (O_3), nitrogen dioxide (NO_2), respirable particulate matter with a diameter less than 10 microns (PM_{10}), sulfur dioxide ($S0_2$), 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, PM_{10}, 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 CO_2 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 PM_{10}, $PM_{2.5}$ and other particulates from sources with local control potential or under the jurisdiction of the County.

Levels of PM_{10} (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 PM_{10} 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 PM_{10} 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 PM_{10} 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 (O_3) precursors (NO_x and ROG), carbon monoxide (CO), and suspended particulate matter (PM_{10} and

$PM_{2.5}$). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO_2), would not be substantially emitted by the Daylight Legacy 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 (2011).

Ozone (O_3)

CARB describes the ozone and health impacts (CARB 2016a). While O_3 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 O_3 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 NO_2, an oxide of nitrogen, is another criteria pollutant itself, ROGs are not in that category, but are included in this discussion as O_3 precursors. In 2007, CARB adopted an 8-hour health-based standard for O_3 of 0.070 parts per million (ppm). The U.S. EPA revised the 8-hour NAAQS for O_3 from 0.080 ppm in 2008 and reduced it again in 2015 to 0.070 ppm (US EPA 2015, 2023)[1].

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.

[1] NAAQS. *National Ambient Air Quality Standards for Ozone.* Available at: https://www.federalregister.gov/documents/2015/10/26/2015-26594/national-ambient-air-quality-standards-for-ozone Accessed on 07/25/2023.

TABLE 1 Ambient Air Quality Standards[2]

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 4th 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 98th 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 99th 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 98th 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, 07/24/23
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 (NO_2)

As described by CARB (2016c), the major health effect from exposure to high levels of NO_2 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 O_3 and can affect regional visibility. Nitrogen dioxide is one compound in a group of compounds consisting

[2] Source: California Air Resources Board (http://www.arb.ca.gov)

of oxides of nitrogen (NO_x). As described above, NO_x is an O_3 precursor compound. Monitored levels of NO_2 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 (PM_{10}) 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. PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled and cause adverse health effects. PM_{10} 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 PM_{10} standard, approved in 2002, is 20 micrograms per cubic meter ($\mu g/m^3$) for an annual average. The 24-hour average standard is 50 $\mu g/m^3$. $PM_{2.5}$ 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 $\mu g/m^3$ for 24-hour exposures (Federal Register, Vol. 71, No. 10, January 17, 2006). That same action by U.S. EPA also revoked the annual PM_{10} standard due to lack of scientific evidence correlating long-term exposures of ambient PM_{10} with health effects. CARB has only adopted an annual average $PM_{2.5}$ standard, which is set at 12 $\mu g/m^3$. This is equal to the NAAQS of 12 $\mu g/m^3$ (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 2023) 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 containments 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 PM_{10} 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 2015). 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 (2016a). While Kings County is fairly rural, exceedances of the ozone standard occurred on 13 to 27 days per year, based on the last 3 years of available monitoring data (see Table 2).

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		
		2019	2020	2021
Ozone (ppm)	State 1-Hour	0.093 / 0	**0.103 / 6**	**0.102/2**
Ozone (ppm)	State 8-Hour	**0.077 / 13**	**0.088 / 27**	**0.096/18**
Ozone (ppm)	Federal 8-Hour	**0.076 /13**	**0.088/26**	**0.095/16**
PM_{10} (ug/m^3)	State 24-Hour	221/ 104	181/ 132	NR
PM_{10} (ug/m^3)	Federal 24-Hour	**212/ 7[2]**	**180/ 7[2]**	NR
PM_{10} (ug/m^3)	State Annual	**45.2**	NR	NR
$PM_{2.5}$ (ug/m^3)	Federal 24-Hour	**58.8 / 21[2]**	**147.0 / 52[2]**	**81.0/31.6[2]**
$PM_{2.5}$ (ug/m^3)	State Annual	12.3	**19.8**	**15.6**
$PM_{2.5}$ (ug/m^3)	Federal Annual	12.2	**19.9**	**15.6**
Carbon Monoxide (ppm)	State/Fed.8-Hour	NR / --[3]	NR / --[3]	NR / --[3]
Nitrogen Dioxide (ppm)	State 1-Hour	0.062 / 0	0.051 / 0	0.051
Nitrogen Dioxide (ppm)	Federal 1-Hour	0.063 / 0	0.052 / 0	0.052
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 07/24/2023.

Particulate Matter ($PM_{2.5}$ and PM_{10})

Most areas of California have either 24-hour or annual PM_{10} 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 PM_{10} 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 PM_{10} (and 66 percent of directly emitted $PM_{2.5}$) is from area sources (SJVAPCD 2016d). 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 2016b). The S.J. Valley also records high PM_{10} 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 PM_{10} concentrations. Measured $PM_{2.5}$ levels exceeded federal standards on an estimated 17 to 52 days

per year. Measured PM_{10} 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 PM_{10} 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 NO_2, SO_2, 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 PM_{10} 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 PM_{10} 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 O_3 and State standards for PM_{10} 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 O_3 standard. As mentioned earlier, the Air Basin has attained the NAAQS for PM_{10}. 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 NO_2.

At the state level, the Air Basin is considered *severe nonattainment* for ground level O_3 and *nonattainment* for PM_{10} 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 O_3 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 NOx 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 NOx (i.e., ozone precursors). These RACT requirements ensure that significant sources of these emissions are controlled to a "reasonable" extent. The District adopted the 2022 Plan for the 2015 8-Hour Ozone Standard on December 15, 2022. This Plan satisfies requirements by the Clean Air Act in addition to ensuring expeditious attainment of the 0.70 ppm 8-hour ozone standard.

On April 25, 2008, US EPA proposed to approve the *2007 PM_{10} Maintenance Plan and Request for Re-designation*. The region now meets the NAAQS for PM_{10}. 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 PM_{10} 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 PM_{10} Plan. These plans identified the need to reduce PM_{10} 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 PM_{10} 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 PM_{10} 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 PM_{10}

SJVAPCD controls fugitive PM_{10} through Regulation VIII (Fugitive PM_{10} Prohibitions). The purpose of this regulation is to reduce ambient concentrations of PM_{10} 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 receptors are rural residences located in the Shannon Ranch complex, approximately 200 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 PM_{10}) 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 $PM_{10}/PM_{2.5}$ 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 $PM_{10}/PM_{2.5}$. Windy conditions during construction could cause substantial emissions of $PM_{10}/PM_{2.5}$.

The SJVAPCD's GAMAQI, emphasizes implementation of effective and comprehensive control measures. SJVAPCD adopted a set of PM_{10} 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 PM_{10} emissions to a *less-than-significant* level.

Impact 2: Construction 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. The impact from local TAC emissions is addressed 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. At the time this analysis was conducted, SJVAPCD recommends the use of this version of the 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., PM_{10} and $PM_{2.5}$), as well as GHG components.

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 Daylight Legacy 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.

The project is planned to be constructed over a 12-month period in 2025 and 2026, with construction beginning July 2025. Construction was modeled for 4 different phases plus construction of the Gen-tie line as follows:

Phase 1 – Site preparation that would last 90 workdays
Phase 2 – Installation of solar arrays that would last 180 days
Phase 3 – Installation of inverters, transformers, switchgear, batteries, and interconnections that would last 180 days.

Phase 4 - Installation of Battery Energy Storage Systems that would last 180 days, and
Phase 5 - Construction of the 230-kV gen-tie line extending from the project switching station northward to the existing PG&E Mustang Substation, which would 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 (i.e., 200 miles per trip). A small fraction of the trip travel distance would occur on site where roads are not paved. This was assumed to average one-eighth 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). Site travel routes would be paved with gravel and dust would be controlled through frequent watering and/or use of dust suppressants.

Helicopter emissions were computed separately from CalEEMod. Emissions are based on published emission factors for various helicopter models (Swiss Federation 2015). The emissions account for five landing take-off (LTO) cycles per day in addition to hourly emissions. This project is likely to require a light helicopter to lift line leads over monopoles. For this project, a single engine Hughes MD500E was assumed. The lines will be installed using pullers and tensioners that are included as construction equipment in the CalEEMod modeling. Helicopter usage was assumed to occur 4 hours per day for 20 days.

Both criteria air pollutant exhaust and fugitive dust (i.e., PM_{10} and $PM_{2.5}$) were computed by CalEEMod. Note that the unmitigated CalEEMod modeling does not include the full effects of SJVAPCD Regulation VIII that would substantially reduce fugitive PM_{10} 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 PM_{10} (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 NOx or 2.0 tpy of PM_{10}. 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 PM_{10} 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 Daylight Legacy Solar facility would be decommissioned at the end of its productive life, after 35 to 40 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 PM_{10} 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	PM_{10}	$PM_{2.5}$
Uncontrolled Emissions *					
2025/2026 Uncontrolled dust	1.29	9.73	11.11	83.66	8.91
2025/2026 Controlled dust	1.29	<9.68**	11.11	11.49**	1.56
Significance thresholds	10	10	100	15	15
Uncontrolled	No	No	No	**YES**	No
Controlled	No	No	No	No	No

* Values reported for "Controlled" PM_{10} 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.
** ISR requires reductions for NOx and PM_{10} not reflected in this assessment.

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 NOx and PM10

emissions are not anticipated. Regulation VIII that reduces fugitive dust would apply to construction activities.

Uncontrolled construction period emissions of ROG, NO_x CO, and $PM_{2.5}$ would be below the thresholds used by SJVAPCD to judge the significance of construction air quality impacts under CEQA. Controls, which are required by SJVAPCD and Fresno County, are necessary to reduce fugitive PM_{10} emissions below the significance thresholds. The majority of PM_{10} emissions are from vehicles traveling on unpaved surfaces. 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 Daylight Legacy Solar Project. The first full year that the project could be operational is 2027 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 2027. 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 - Controlled	0.08	0.60	1.11	3.48	0.37
Significance Thresholds	*10*	*10*	*100*[2]	*15*	*15*
Exceed Thresholds?	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

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 PM_{10} 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 NOx emissions may not apply. In order to determine if the project would qualify for an exemption, the project applicant would be required to submit an AIA application to the Air District staff, who would determine if the exemption applies.

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 10 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 20 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 proximity of sensitive receptors along Avenal Cutoff, a health risk assessment to assess the potential cancer risk was performed 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 Daylight Legacy Solar project, the highest daily levels of DPM would be emitted during construction activities from use of heavy-duty diesel equipment such as 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 12 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. There would be occasional truck trips associated with maintenance.

Levels of DPM emissions can be generally inferred from PM_{10} emissions, of which diesel exhaust constitutes a substantial component. Table 5, above, shows that PM_{10} emissions from solar project construction would be well below the applicable significance threshold. Table 6, above, shows that PM_{10} emissions from operational activities would be well below the significance threshold.

Construction Emissions

Construction period air pollutant emissions were modeled using the California Emissions Estimator Model, CalEEMod 2020.4.0 model, with project construction information (see Impact 2) and the CT-EMFAC2021 model for vehicle emissions. CalEEMod was used to develop emissions of DPM for offroad construction equipment while CT-EMFAC2021 was used to develop both on- and off-site emissions for construction traffic. Inputs to CalEEMod for offroad equipment are described for Impact 2. Traffic inputs to CT-EMFAC2021 include the county (Kings), road type (rural local), year (2025), and fleet mix (i.e., percent trucks). Emissions factors from CT-EMAFC2021 were then applied to the average daily traffic volume for workers and haul trucks accessing the site. This includes 651 onsite worker/truck trips and 24 off-site haul truck trips per day. On or near site, trucks (including water trucks) were assumed to travel 6 miles and works were assumed to travel 3 miles on-site per trip. Offsite haul trips passing sensitive receptors along Avenal Cutoff (between Laurel and Nevada avenues) were limited to a 1,000-foot distance from the receptors referenced in Figure 2 (0.76 miles). Onsite truck trips included 5 minutes of idling emissions and all onsite trips were assumed to be limited to a speed

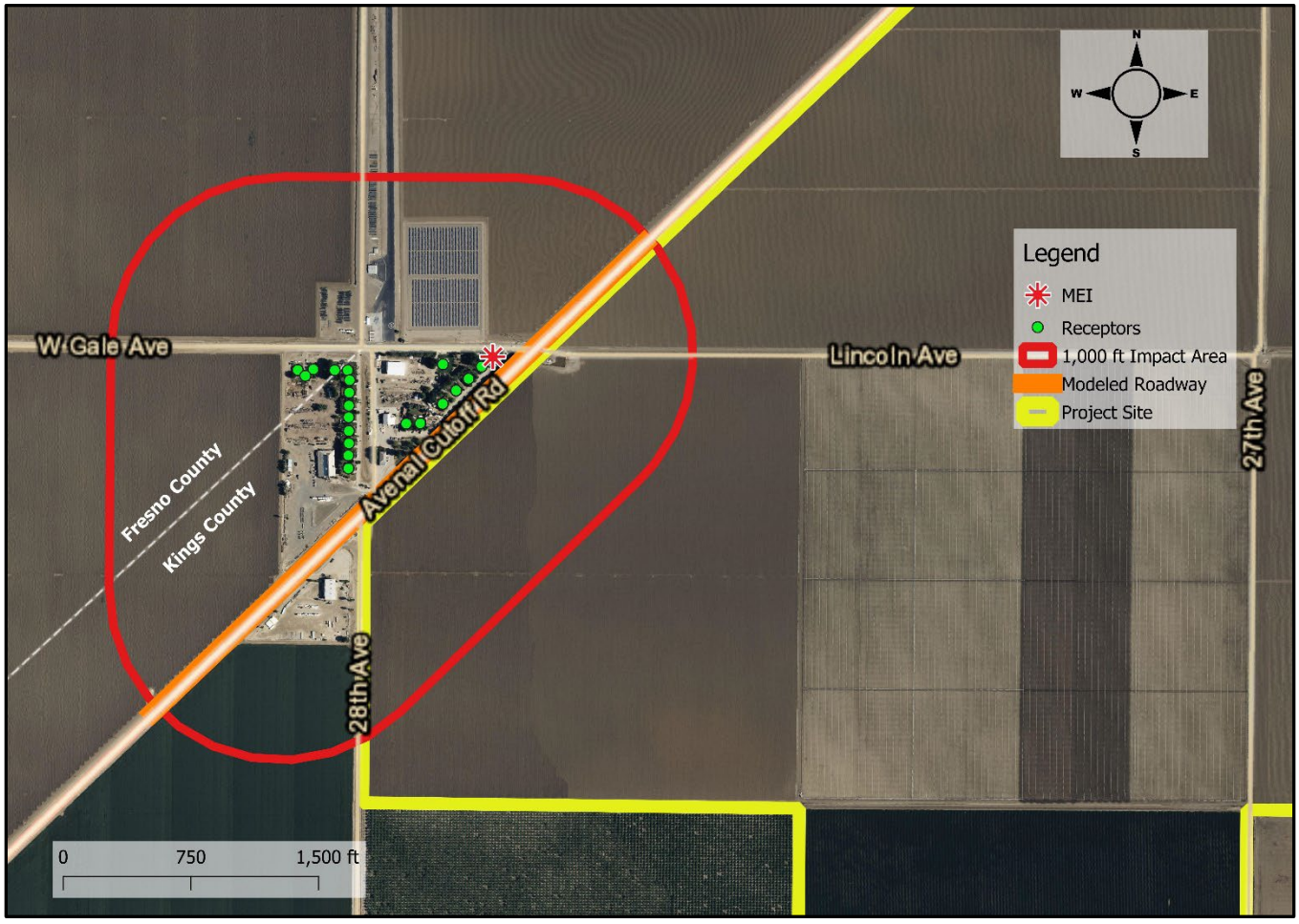
of 15 miles per hour (mph). Offsite haul trips were assumed to be at a 45 mph speed. Emissions from each source category are reported in Table 7.

TABLE 7. CONSTRUCTION PERIOD EMISSIONS

Year	CalEEMod Emissions	CT-EMFAC2021 Emissions	Total Emissions
DPM (PM_{10} exhaust)	0.345tons	0.003 tons	0.348 tons
Non-diesel TOG	NA	0.051 tons	0.051 tons

The emissions rates developed for the project were used in dispersion modeling to estimate TAC concentrations and health risks associated with construction of the Project.

Figure 2 – Project Site and Sensitive Receptor Locations



Operational Emissions

There would be some on-site equipment operation and traffic that would lead to local emissions of DPM. Operational emissions were modeled in CalEEMod, similar to the method described under Impact 2. The difference was that traffic trip lengths for workers and delivery trucks were input as 3 miles instead of the entire trip length to represent localized emissions.

Dispersion Modeling

The US EPA AERMOD dispersion model was used to calculate DPM and other TAC concentrations at existing sensitive receptors (residences) in the vicinity of the project site. The AERMOD dispersion model is a SJVAPCD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects (SJVAPCD).

For modeling construction impacts the AERMOD modeling utilized an area source to represent the location of on-site construction activities and on-site traffic. Emissions were distributed evenly across the area source. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (20 feet) was used for construction equipment and trucks. DPM from worker vehicles were modeled using a release height of 1.3 m (4.25 feet). The elevated source height reflects the height of the vehicle's exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. Emissions from on-road truck travel at and near the project site were included in the area source. Emissions were modeled as occurring daily between 7 am - 7 pm, when the majority of construction activity would occur.

Vehicle emissions on Avenal Cutoff were modeled as line-area source (a series of area sources along a line) representing off-site haul traffic near sensitive receptor locations shown in Figure 2. Source modeling parameters were based on EPA (US EPA 2021) and SJVAPCD (SJVAPCD 2018) guidance.

The model used a 5-year data set (2012-2016) of hourly meteorological data from the Lemoore Naval Airport prepared for use with the AERMOD model by the SJVAPCD. DPM concentrations were calculated at nearby sensitive receptors using a receptor height of 1.5 meters (4.9 feet). Flat terrain was used for the modeling since there is negligible elevation difference between the source and receptors and the receptors with the highest modeled concentrations are close to the project site. Rural dispersion conditions were used in the modeling given the area surrounding the project site is predominantly rural.

Details on the emission calculations and dispersion modeling information for the construction sources are provided in *Attachment 3*.

Cancer Risk and Hazards

The maximum-modeled unmitigated (uncontrolled) annual DPM concentration at a residential receptor was used to describe health risk impacts. The location, referred to as the maximally exposed individual or MEI, is identified on Figure 2. Increased cancer risks were calculated at

this location using the modeled annual concentrations and SJVAPCD recommended risk assessment methods for infant, child, and adult exposures for residential receptors. Results of this assessment with uncontrolled project construction emissions are shown in Table 8.

Using the maximum modeled TAC concentrations, total increased cancer risks from project construction were computed using the most recent methods recommended by SJVAPCD and OEHHA that include nearly continuous exposures with adjustments for infants and children. Based on modeled TAC concentrations, construction cancer risks were calculated for a 70-year residential exposure as 1.14 in one million. This is below the air district's significance threshold of 20 in one million. The chronic HI from DPM would be less than 0.1 at all receptor locations, below the significance threshold of 1.0. Details on the health risk calculations sources are provided in *Attachment 3*.

Health risks associated with maintenance operations at the site were based on DPM emissions estimated obtained using CalEEMod and dispersion modeling previously described. Based on modeled TAC concentrations, cancer risks associated with operations were calculated for a 70-year residential exposure as 0.18 in one million. The chronic HI from DPM would be less than 0.1 at all receptor locations. Total project (construction and operation) health risks are estimated at 1.28 in a million cancer risk and an HI below 0.01. Table 8 shows the results of the health risk assessment. Details on the health risk calculations sources are provided in *Attachment 3*.

Table 8. Construction and Operational Period Health Risk Impacts

	Maximum Residential
	Cancer Risk (per million)
Activity	**Mitigated**
Construction	1.14 infant
Operation (70 years)	0.18 infant /child/adult
Construction (1 year) & Operation (69 years)	1.28 infant /child/adult
SJVAPCD Significance Threshold	20.0
Above Threshold?	No

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 PM_{10} and Ozone attainment plans. The District has determined that implementation and compliance with the ISR would reduce the cumulative PM_{10} 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 PM_{10} 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 PM_{10} 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 PM_{10} 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 CO_2e 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 9 for both construction and operation of the project.

TABLE 9 Annual Project GHG Emissions in Metric Tons Per Year

Phase	GHG Emissions
2025/2026 Construction Activity	2,612
2027 Full Operation	201

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Attachment 1: Activity Assumptions used for CalEEMod Modeling

Daylight Legacy SOLAR PROJECT - Construction Equipment and Vehicle Use - Sheet 1 of 3

238 4360 24
2,180

Daylight Legacy Solar Project (300 MW) - Construction - Off-Site Vehicle Usage

Total Truck Trips 7,057 Round Trips 18% trucks
water 22,864 136,088 6 127
7,057 Trips 40,125 cars 60,557 total

Vehicles	Axles	Estimated Usage Units	Miles/Round Trip	Round Trips per Unit	Total Round Trips	VMT	Per CalEEMod Trips/day	Miles/day	% diff	Notes / Trip origin	Construction Schedule
Phase 1 – Site Preparation											**Phase 1**
Water Trucks (travel to & from site only)	3	10	90	1	10	900				To/From Fresno	**90 working days**
Water Trucks (on-site travel only)		10	6	450	4,500	27,000				Water source is on-site. Data is for AQ study only.	(4 days/week)
Flat Bed Trucks (Equipment Transport)	5	10	90	7	70	6,300				Fresno	
Freight Trucks (Delivery - Fence Posts)	5	7	90	4	28	2,520				Fresno	
Freight Trucks (Delivery - Fence Mesh + Barbed wire)	5	5	90	5	25	2,250				Fresno	
Gravel Trucks (20 CY)	5	20	50	99	1,980	99,000				Sierra Pacific Materials, Coalinga	Begin ~ July 1, 2025
Concrete Trucks (10 CY) Fence Footings	4	10	52	57	570	29,640				Viking Readymix Hanford	End ~ Dec 31, 2025
Workers (average daily)(does not count 25% carpooling)		110	93	90	9,900	920,700				Commute distance is weighted average of surrounding cities by population	
w/Carpool Reduction		83									
Workers (peak daily - during period when all phases overlap)		125								Data is for Traffic study only.	Work day is 10 hours beginning
Worker					7,425	690,525	83	93.0	-		
Vendor					2,673	139,710	30	52.3	0.48%		
Haul (Water)					4,510	27,900	50	6.2			
w/Carpool Reduction		94			2073 tr						at 6:30 AM for majority of workers.
Phase 2 – Installation of Solar Arrays											**Phase 2**
Water Trucks (travel to & from site only)	3	10	0	0	-	-				Delivered in Phase 1	**180 working days**
Water Trucks (on-site travel only)		10	6	900	9,000	54,000				Water source is on-site. Data is for AQ study only.	(4 days/week)
Flat Bed Trucks (Equipment Transport)	5	10	90	7	70	6,300				Fresno	
Freight Trucks (Delivery - Solar Modules)	5	10	200	133	1,330	266,000				Port of Oakland	Begin ~ July 1, 2025
Freight Trucks (Delivery - Racking/TorqueTubes)	5	10	200	59	590	118,000				Port of Oakland	End ~ June 30, 2026
Freight Trucks (Delivery - Solar Array Support Posts)	5	10	90	87	870	78,300				Fresno	(overlap w/ Ph 1 = 90 working days
Freight Trucks (Delivery - Wiring/Harnesses/Combiners)	5	10	90	14	140	12,600				Fresno	
Workers (average daily)(does not count 25% carpooling)		165	93	180	29,700	2,762,100				Commute distance is weighted average of surrounding cities by population	
w/Carpool Reduction		124									
Workers (peak daily - during period when all phases overlap)		295								Data is for Traffic study only.	
w/Carpool Reduction		176									Work day is 10 hours beginning
					3,000 tr						at 6:30 AM for majority of workers.
Worker					22,275	2,071,575	124	93.0			
Vendor					3,000	481,200	17	160.4	0.16%		
Haul (Water)					9,000	54,000	90	6.0			
Phase 3 – Installation of Inverters, Transformers, Substation, Interconnection											**Phase 3**
Water Trucks (travel to & from site only)	3	10	0	0	-	-				Delivered in Phase 1	**180 working days**
Water Trucks (on-site travel only)		10	6	900	9,000	54,000				Water source is on-site. Data is for AQ study only.	(4 days/week)
Flat Bed Trucks (Equipment Transport)	5	5	90	2	10	2,000				Fresno	
Flat Bed Trucks (Delivery - PCS skids)	5	10	200	8	80	16,000				Port of Oakland	
Flat Bed Trucks (Delivery - Sub Transformers, etc./Poles)	5	10	200	4	40	8,000				Port of Oakland	
Flat Bed Trucks (Delivery - Other Electrical)	5	2	90	3	6	540				Fresno	Begin ~ July 1, 2025
Freight Trucks (Delivery - Fence Posts + Mesh Material)	5	2	90	1	2	180				Fresno	End ~ June 30, 2026
Gravel Trucks (20 CY)	5	10	50	7	70	3,500				Sierra Pacific Materials, Coalinga	(overlap w/ Ph 1 +2 = 180 working days
Concrete Trucks - PCSs (10 cy) k	4	10	52	8	80	4,160				Viking ReadyMix, Hanford	
Concrete Trucks - AC/DC underground	4	10	52	7	70	3,640				Viking ReadyMix, Hanford	
Concrete Trucks - Substation (10 CY)	4	10	52	12	120	6,240				Viking ReadyMix, Hanford	
Concrete Trucks - Sub fence post foundations	4	10	52	1	10	520				Viking ReadyMix, Hanford	
Workers (average daily)(does not count 25% carpooling)		55	93	180	9,900	920,700				Commute distance is weighted average of surrounding cities by population	
w/Carpool Reduction		41									
Workers (peak daily - during period when all phases overlap)		80								Data is for Traffic study only.	Work day is 10 hours beginning
w/Carpool Reduction		60			488 tr						at 6:30 AM for majority of workers.
Worker					7,425	690,525	41	93.0			
Vendor					488	44,780	3	91.8	0.27%		
Haul (Water)					9,000	54,000	90	6.0			
Phase 4 – Installation of Dattery Energy Storage Systems (BESS)											**Phase 4**
Water Trucks (travel to & from site only)	3	2	0	0	-	-				To/From Fresno	**180 working days**
Water Trucks (on-site travel only)		2	3	180	360	1,080				Water source is on-site. Data is for AQ study only.	(4 days/week)
Flatbeds (equipment delivery)	5	5	90	2	10	900				Fresno	
Flat BedTrucks (Delivery - Battery Containers)	5	5	200	80	400	80,000				Port of Oakland	
Flat Bed Trucks (Delivery - Transformers)	5	5	200	10	50	10,000				Port of Oakland	Begin ~ July 1, 2025
Freight Trucks (Delivery - Fence Posts + Mesh Material)	5	1	90	1	1	90				Fresno	End ~ June 30, 2026
Gravel Trucks (20 CY)	5	10	50	13	130	6,500				Sierra Pacific Materials, Coalinga	(overlap w/ Ph 2+3 = 180 working days
Concrete Trucks (10 CY) - Container pads	4	10	52	10	100	5,200				Viking ReadyMix, Hanford	
Concrete Trucks (10 cy) - Transformer Pads		8	52	4	32	1,664				Viking ReadyMix, Hanford	
Concrete Trucks - Fence Post Foundations	4	7	52	2	14	728				Viking ReadyMix, Hanford	
Workers (average daily)(does not count 25% carpooling)		20	93	180	3.600	334.800				Commute distance is weighted averaae of surrounding cities by population	
w/Carpool Reduction		15									Work day is 10 hours beginning
Workers (peak daily)(does not count 25% carpooling)		40								Data is for Traffic study only.	at 6:30 AM for majority of workers.
w/Carpool Reduction		30			737 tr						
					6,298 tr T						
Worker					2,700	251100	15	93.0			
Vendor					737	105,082	4	142.6	0.18%		
Haul (Water)					360	1,080	2	3.0			
Gen-Tie Installation (GenTie=1.1 miles)		See Gen Tie Worksheet									
Water Trucks (travel to & from site only)	3	2	0	0	-					To/From Fresno	**30 working days**
Water Trucks (on-site travel only)	3	2	2	2	4	8				Water source is on-site. Data is for AQ study only.	(5 days/week)
Flatbeds (monopole and component delivery)	5	8	90	10	80	7,200				Fresno	
Flatbeds (equipment delivery)	5	7	90	5	35	3,150				Fresno	
Gravel Trucks (20 CY)	5	0	50	0	-	-				Sierra Pacific Materials, Coalinga	Begin ~ April 1, 2026
Concrete Trucks (10 CY) - monopole footings	4	5	52	5	25	1,300				Viking ReadyMix, Hanford	End ~ May 15, 2026
Pickup Trucks	2	15	90	1	15	1,350					
						-					(overlap w/ Ph 2+3 = 20 working days
Workers (average daily)(does not count 25% carpooling)		20	93	20	400	37,200				Commute distance is weighted average of surrounding cities by population	
w/Carpool Reduction		15									
Workers peak daily)(does not count 25% carpooling)		30								Data is for Traffic study only.	
w/Carpool Reduction		23									
Worker					300	27,900	10	93.0			
Vendor					155	13,000	5	83.9	0.30%		
Haul (Water)					4	8	0	2.0			
Project Totals					**148,664**	**10,507,737**					**Total Duration**
Worker Average		370									180 working days over 12 months
w/Carpool Reduction		278									
Worker Peak		570			Trips	VMT					
w/Carpool Reduction		428									

Daylight Legacy Solar Project (300 MW) - Construction - On-Site Equipment Usage

Equipment	Estimated Usage Units	Hours/Day (4 days/wk)	Days per Unit	CalEEMod avg hr/day
Phase 1 – Site Preparation				
Water Trucks (5,000 gal) traffic	4	5	90	
Graders	2	9	90	9.0
Skid Loaders	2	9	90	9.0
Roller/Compactors	9	9	60	6.0
ATVs assume diesel offroad 25hp	5	9	90	9.0
Fork Lifts	4	9	80	8.0
Pickup Trucks traffic	6	5	90	
Phase 2 – Installation of Solar Arrays				
Water Trucks (5,000 gal) traffic	3	5	180	
Skid Loaders	6	9	100	5.0
Pile Drivers assume tractor	6	9	100	5.0
Forklifts	16	5	120	3.3
Welders	20	5	150	4.2
Trenchers	6	5	100	2.8
ATVs assume diesel offroad 25hp	30	9	180	9.0
Phase 3 – Installation of Inverters, Transformers, Substation, Interconnection				
Water Trucks (5,000 gal) traffic	2	5	180	
Skid Loaders	2	9	60	3.0
Pile Drivers	2	9	90	4.5
Trenchers	4	9	120	6.0
Cranes	2	5	120	3.3
Forklifts	3	9	60	3.0
ATVs assume diesel offroad 25hp	10	9	180	9.0
Aerial Lifts	2	5	60	1.7
Roller Compactors	1	9	30	1.5
Phase 4 – Installation of Dattery Energy Storage Systems (BESS)				
Water Trucks (5,000 gal) traffic	1	5	180	
Skid Loaders	2	9	60	3.0
Pile Drivers	2	5	30	0.8
Front-End Loaders	2	5	90	2.5
Roller/Compactors	1	5	30	0.8
Trenchers	4	5	90	2.5
Backhoes	2	5	90	2.5
Cranes	1	5	120	3.3
Pickup Trucks	2	5	180	

Daylight Legacy SOLAR PROJECT - Operational Equipment and Vehicle Use - Sheet 2 of 3

Operations - On-Site Vehicle and Equipment Usage

assume 90% on dirt

	Estimated Usage (Annual)		
Equipment	**Units**	**Hours/Day/Unit**	**Total Days/Unit/Year**
All-Terrain Vehicle (ATV)	2	4	100
Tractor	2	8	100
Portable Generator	2	8	60
Portable Water Trailer w/Pump	5	8	80
Vehicles	**Units**	**Daily Miles/ Unit**	**Total Days/ Unit/Year**
Pickup Truck (Routine O&M)	4	30	130
Pickup Truck (Panel Washing)	5	40	80

920 31600 mi/year
3.54 trip/workday 34.35 mi/trip

Operations - Off-Site Vehicle Usage

assume 0% on dirt

	Estimated Annual			Miles/Round Trip
Personnel	**Workers**	**Days**	**Round Trips**	
Permanent	5	252	504	93
Repair Crew	4	25	500	93
Panel Washing Crew	6	60	1,000	93
Total Annual Round Trips			**2,004**	

7.71 trip/workday 186,372 mi/year

2,924 trips/yr 217,972 mi/year
11.25 trip/workday 74.5 mi/trip
13% on dirt

LDT 83%
LHDT 17%

GEN-TIE CONSTRUCTION INPUTS - SHEET 3 of 3

Gen-Tie Line - Construction - Off-Site Vehicle Usage

Vehicles	Estimated Usage				VMT	Notes	Construction Schedule
	Units	Miles/Round Trip	Round Trips per Unit	Total Round Trips		Trip origin	Phase 1
Water Trucks (travel to & from site only)	2			-	-	Accounted for in project numbers - same water trucks	**30 working days**
Water Trucks (on-site travel only)	2	2				Water source is on GSSN site. Data for AQ study only.	
Flat Bed Trucks (Monopole and Component Delivery)	4	90	10	40	3,600	Fresno	
Flat Bed Trucks (Equipment Delivery)	3	90	12	36	3,240	Fresno	Overlaps with all phases of
Gravel Trucks	0	50	0	-	-		
Concrete Trucks (10 CY)	5	52	5	25	1,300	Viking Concrete, Hanford	Begin ~ Sept 1, 2023
Workers (average daily)(does not count 25% carpooling)	20	93	80	1,600	148,800	Commute distance is weighted average of surrounding cities by population	End ~ Sept 30, 2023
Workers (peak daily - during period when all phases overlap)	30					Data is for Traffic study only.	Work day is 10 hours beginning at 6:30 AM for majority of workers.
Totals				**1,701**	**156,940**		
				Trips	VMT		

	Roundtrips/Day	MI/trip
Worker	10.0	93.0
Vendor	5.2	83.9
Haul (Water)	0.1	2.0

GEN-TIE LAND DISTURBANCE

Temporary land disturbance	21.0 acres	Data for AQ study
Permanent land disturbance	0.4 acres	

Gen-Tie Line - Construction - On-Site Equipment Usage

Equipment	Estimated Usage			CalEEMod
	Units	Hours/Day (5 days/wk)	Days per Unit	avg hr/day
Water Trucks (5,000 gal) traffic	2	5	30	
Graders	1	4	30	4.0
Skip Loaders	3	4	30	4.0
Backhoe	2	4	30	4.0
Roller/Compactors	2	4	30	4.0
Drill Truck/Rig	1	10	20	6.7
Cranes	2	10	25	8.3
Pullers tractor	2	10	25	8.3
Tensioners tractor	2	10	25	8.3
Aerial Lifts	3	10	25	8.3
Tractor Trailer tractor	3	4	25	3.3
Utility/Tool Trucks traffic	4	10	30	
Pickup Trucks traffic	4	10	30	
Helicopter	1	4	20	2.7

Helicopter Emissions

Helicopter type: **Hughes MD500E**

Emissions Source: **Guidance on the Determination of Helicopter Emissions**
Swiss Federation, Volume 2, December 2015

	Quantity	Units	Fuel (kg)	NOx (g)	HC (g)	CO (g)	PM (g)	CO2
LTO Emissions	5	LTO per day	16.40	59.50	438.20	571.20	2.30	
Hourly	4	hrs/day	98.80	480.00	960.00	1200.00	16.00	
	Daily	kg or g/day	477.20	2217.50	6031.00	7656.00	75.50	
			Daily Emissions					
		gallons or lbs/day	149.50	4.88	13.28	16.86	0.17	3154

Aviation Fuel:	6.8	lbs/gallon
	0.0038	m**3/gallon
	840	kg/m**3
	21.1	lbsCO2/gallon

lbs. per period

20	days	97.69	265.68	337.27	3.33		63088
		NOx	**HC**	**CO**	**PM**	**CO2**	
	Total	**tons and metric tons CO2**					
		0.05	**0.13**	**0.17**	**0.00**		**28.62**

https://www.eia.gov/environment/emissions/co2_vol_mass.php

						LTO Emissions						One hour emissions					
Code	Aircraft_ICAO	Aircraft_Name	Engine_Name	Max SHP per engine	Number_of_Engines	LTO fuel (kg)	LTO NOx (g)	LTO HC (g)	LTO CO (g)	LTO PM non volatile (g)	LTO PM number	One hour fuel (kg)	One hour NOx (kg)	One hour HC (kg)	One hour CO (kg)	One hour PM non vol. (g)	One hour PM number
H124	A109	AGUSTA A109 Power	ARRIUS 2K	670	2	42.4	220.7	741.8	961.1	7.3	3.1181E+16	240.7	1.61	1.3	1.61	48	1.58E+18
H131	ALO2	ALOUETTE II	ARTOUSTE IIC5	402	1	18.1	75.4	378	489.2	2.7	2.718E+16	109.7	0.61	0.82	1.02	19.4	6.39E+17
H131	ALO2	ALOUETTE II	ARTOUSTE IIC6	402	1	18.1	75.4	378	489.2	2.7	2.718E+16	109.7	0.61	0.82	1.02	19.4	6.39E+17
H132	EC20	EC-120 COLIBRI	ARTOUSTE III B	563	1	21.4	108.9	308.9	395.9	3.6	2.9258E+16	134.9	0.92	0.7	0.86	27	8.04E+17
H132	LAMA	SA315B LAMA	ARTOUSTE IIIB	563	1	21.4	108.9	308.9	395.9	3.6	2.9258E+16	159.2	1.08	0.83	1.02	32.2	5.89E+17
H132	ALO3	SA316B ALOUETTE III	ARTOUSTE IIIB	563	1	21.4	108.9	308.9	395.9	3.6	2.9258E+16	134.9	0.92	0.7	0.86	27.2	8.98E+17
H133	AS55	AS 355 ECUREUIL 21	ARTOUSTE III B	563	2	37.6	175.8	802.1	1046.7	6.1	2.9876E+16	235.7	1.41	1.53	1.91	44	1.29E+18
H141	GAZL	SA341 GAZELLE	ASTAZOU IIIA	644	1	23.5	128.9	288.6	367.6	4.2	3.0155E+16	148.5	1.08	0.67	0.82	32	5.83E+17
H141	GAZL	SA341 GAZELLE	ASTAZOU IIIN2	644	1	23.5	128.9	288.6	367.6	4.2	3.0155E+16	148.5	1.08	0.67	0.82	32	5.83E+17
H142	ALO3	SA316B ALOUETTE III	ASTAZOU XIVB	590	1	21.9	114.5	299.8	384.7	3.8	2.9446E+16	139.4	0.98	0.69	0.85	29	9.52E+17
H142	GAZL	SA342 GAZELLE	ASTAZOU XIVG	590	1	21.9	114.5	299.8	384.7	3.8	2.9446E+16	139.4	0.98	0.69	0.85	28.9	5.28E+17
H142	GAZL	SA342 GAZELLE	ASTAZOU XIVH	590	1	21.9	114.5	299.8	384.7	3.8	2.9446E+16	139.4	0.98	0.69	0.85	28.9	5.28E+17
H151	TIGR	EUROCOPTER 665 TIGER	MTR 390	1450	2	69	507.6	613.6	781	15.2	4.3258E+16	476	4.76	1.17	1.43	133	1.95E+18
H161	2HAC	HAL DHRUV MK II	TM333-2B2	1219	2	63.4	421.3	688.7	881.4	12.9	4.0814E+16	434.1	3.95	1.29	1.56	112	3.68E+18
H201	H500	HUGHES 500	DDA250-C18	317	1	16.4	59.5	438.2	571.2	2.3	2.5999E+16	98.8	0.48	0.96	1.2	16	2.94E+17
		AGUSTA	DDA250-														

Attachment 2: CalEEMod Output

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Daylight Legacy Solar+Gen Tie HRA

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	2,107.00	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**	2026
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 - Used user defined for solar park 2,106.9acres

Construction Phase - Using unique construction schedule

Off-road Equipment - per list. Tensioners and Pullers = off road tractors

Off-road Equipment - per list plus ATV 25hpTractor) and pile driver (crane)

Off-road Equipment - per list. ATV = Off road tractor @25hp. Pile driver = crane

Off-road Equipment - per list. ATV = offroad 25hp. Pile Driver = crane

Off-road Equipment - per list. water and pickup trucks not included ATV = offroad 25hp

Trips and VMT - per list. Vendor trips include water truck (MHDT)

On-road Fugitive Dust - Off road travel at site but highway travel other roads with site watering. Gravel placed on access roads. Assume 5% moisture with treatment

Grading - 10% of area. Gravel import but included in equipment and vehicle activity

Vehicle Trips - Based on on-site and off-site travel

Road Dust - 83% Highway travel. Roads maintained with dust suppresents, gravel and moisture =12%, 15mph

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction Off-road Equipment Mitigation - BMPs required by County and Reg VIII. Assume 80% unpaved roadway dust reduciton with gravel beds, water/suppresents

Operational Off-Road Equipment - Operational equipment

Fleet Mix - 83% LDT and 17% LHD1

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6,000.00	90.00
tblConstructionPhase	NumDays	15,500.00	180.00
tblConstructionPhase	NumDays	155,000.00	180.00
tblConstructionPhase	NumDays	155,000.00	180.00
tblConstructionPhase	NumDays	155,000.00	30.00
tblLandUse	LotAcreage	0.00	2,107.00
tblOffRoadEquipment	HorsePower	231.00	97.00
tblOffRoadEquipment	HorsePower	124.00	25.00
tblOffRoadEquipment	HorsePower	124.00	25.00
tblOffRoadEquipment	HorsePower	124.00	25.00
tblOffRoadEquipment	LoadFactor	0.29	0.37
tblOffRoadEquipment	LoadFactor	0.44	0.37
tblOffRoadEquipment	LoadFactor	0.44	0.38
tblOffRoadEquipment	LoadFactor	0.44	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	4.50
tblOffRoadEquipment	UsageHours	7.00	3.30
tblOffRoadEquipment	UsageHours	7.00	3.30
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.30
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	7.00	2.50
tblOffRoadEquipment	UsageHours	7.00	2.50
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOnRoadDust	HaulingPercentPave	100.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	10.00
tblOnRoadDust	RoadSiltLoading	0.10	0.04
tblOnRoadDust	RoadSiltLoading	0.10	0.04

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOnRoadDust	RoadSiltLoading	0.10	0.04
tblOnRoadDust	RoadSiltLoading	0.10	0.04
tblOnRoadDust	RoadSiltLoading	0.10	0.04
tblOnRoadDust	VendorPercentPave	100.00	99.50
tblOnRoadDust	VendorPercentPave	100.00	99.80
tblOnRoadDust	VendorPercentPave	100.00	99.70
tblOnRoadDust	VendorPercentPave	100.00	99.80
tblOnRoadDust	VendorPercentPave	100.00	99.70
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	124.00	25.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.30
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.10
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.80
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	MaterialMoistureContent	0.5	12
tblRoadDust	MeanVehicleSpeed	40	15
tblRoadDust	RoadPercentPave	100	87
tblRoadDust	RoadSiltLoading	0.1	0.04
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblTripsAndVMT	WorkerTripNumber	210.00	0.00
tblVehicleTrips	CNW_TL	7.30	7.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	11.25

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					
2025	0.6200	5.5564	5.9744	9.6900e-003	0.0537	0.2687	0.3224	5.8000e-003	0.2495	0.2553	0.0000	825.9507	825.9507	0.2373	0.0000	831.8841
2026	0.1782	1.5287	1.6106	2.4700e-003	0.0000	0.0769	0.0769	0.0000	0.0715	0.0715	0.0000	208.0082	208.0082	0.0564	0.0000	209.4192
Maximum	**0.6200**	**5.5564**	**5.9744**	**9.6900e-003**	**0.0537**	**0.2687**	**0.3224**	**5.8000e-003**	**0.2495**	**0.2553**	**0.0000**	**825.9507**	**825.9507**	**0.2373**	**0.0000**	**831.8841**

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2025	0.6200	5.5564	5.9744	9.6900e-003	0.0209	0.2687	0.2896	2.2600e-003	0.2495	0.2517	0.0000	825.9497	825.9497	0.2373	0.0000	831.8831
2026	0.1782	1.5287	1.6106	2.4700e-003	0.0000	0.0769	0.0769	0.0000	0.0715	0.0715	0.0000	208.0079	208.0079	0.0564	0.0000	209.4189
Maximum	**0.6200**	**5.5564**	**5.9744**	**9.6900e-003**	**0.0209**	**0.2687**	**0.2896**	**2.2600e-003**	**0.2495**	**0.2517**	**0.0000**	**825.9497**	**825.9497**	**0.2373**	**0.0000**	**831.8831**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**61.00**	**0.00**	**8.20**	**61.03**	**0.00**	**1.08**	**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	7-1-2025	9-30-2025	3.5196	3.5196
2	10-1-2025	12-31-2025	2.6365	2.6365
3	1-1-2026	3-31-2026	1.7272	1.7272
		Highest	3.5196	3.5196

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.4600e-003	6.4600e-003	0.0311	8.0000e-005	0.3244	7.0000e-005	0.3245	0.0327	7.0000e-005	0.0328	0.0000	7.1126	7.1126	3.6000e-004	4.3000e-004	7.2489
Offroad	0.0626	0.5515	0.8574	1.4600e-003		0.0227	0.0227		0.0223	0.0223	0.0000	126.1339	126.1339	0.0106	0.0000	126.3980
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	**0.0660**	**0.5580**	**0.8885**	**1.5400e-003**	**0.3244**	**0.0227**	**0.3472**	**0.0327**	**0.0224**	**0.0551**	**0.0000**	**133.2465**	**133.2465**	**0.0109**	**4.3000e-004**	**133.6469**

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	3.4600e-003	6.4600e-003	0.0311	8.0000e-005	0.3244	7.0000e-005	0.3245	0.0327	7.0000e-005	0.0328	0.0000	7.1126	7.1126	3.6000e-004	4.3000e-004	7.2489
Offroad	0.0626	0.5515	0.8574	1.4600e-003		0.0227	0.0227		0.0223	0.0223	0.0000	126.1339	126.1339	0.0106	0.0000	126.3980
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	**0.0660**	**0.5580**	**0.8885**	**1.5400e-003**	**0.3244**	**0.0227**	**0.3472**	**0.0327**	**0.0224**	**0.0551**	**0.0000**	**133.2465**	**133.2465**	**0.0109**	**4.3000e-004**	**133.6469**

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	Site Preparation	Site Preparation	7/1/2025	11/3/2025	5	90	actually 4day/wk
2	Installation of Solar Arrays	Grading	7/1/2025	3/9/2026	5	180	4 day/week
3	Installation of Inverters, Transformers, etc.	Building Construction	7/1/2025	3/9/2026	5	180	4 day/week
4	Installation of Dattery Energy Storage Systems	Building Construction	7/1/2025	3/9/2026	5	180	4 day/week
5	Gen-Tie Installation	Building Construction	7/1/2025	8/11/2025	5	30	5 day/week

Acres of Grading (Site Preparation Phase): 101.25

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
Site Preparation	Forklifts	4	8.00	89	0.20
Site Preparation	Graders	2	9.00	187	0.41
Site Preparation	Off-Highway Tractors	5	9.00	25	0.37
Site Preparation	Rollers	9	6.00	80	0.38
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	2	9.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Solar Arrays	Cranes	6	5.00	97	0.37
Installation of Solar Arrays	Excavators	0	8.00	158	0.38
Installation of Solar Arrays	Forklifts	16	3.30	89	0.20

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Installation of Solar Arrays	Graders	0	8.00	187	0.41
Installation of Solar Arrays	Off-Highway Tractors	30	9.00	25	0.38
Installation of Solar Arrays	Rubber Tired Dozers	0	8.00	247	0.40
Installation of Solar Arrays	Scrapers	0	8.00	367	0.48
Installation of Solar Arrays	Skid Steer Loaders	6	5.00	65	0.37
Installation of Solar Arrays	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Solar Arrays	Trenchers	6	2.80	78	0.50
Installation of Solar Arrays	Welders	20	4.20	46	0.45
Installation of Inverters, Transformers, etc	Aerial Lifts	2	1.70	63	0.31
Installation of Inverters, Transformers, etc	Cranes	2	4.50	231	0.29
Installation of Inverters, Transformers, etc	Cranes	2	3.30	231	0.29
Installation of Inverters, Transformers, etc	Forklifts	3	3.00	89	0.20
Installation of Inverters, Transformers, etc	Generator Sets	0	8.00	84	0.74
Installation of Inverters, Transformers, etc	Off-Highway Tractors	10	9.00	25	0.37
Installation of Inverters, Transformers, etc	Rollers	1	1.50	80	0.38
Installation of Inverters, Transformers, etc	Skid Steer Loaders	2	3.00	65	0.37
Installation of Inverters, Transformers, etc	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Installation of Inverters, Transformers, etc	Trenchers	4	6.00	78	0.50
Installation of Inverters, Transformers, etc	Welders	0	8.00	46	0.45
Installation of Dattery Energy Storage Systems	Cranes	1	3.30	231	0.29
Installation of Dattery Energy Storage Systems	Cranes	2	1.00	231	0.29
Installation of Dattery Energy Storage Systems	Forklifts	0	8.00	89	0.20
Installation of Dattery Energy Storage Systems	Generator Sets	0	8.00	84	0.74
Installation of Dattery Energy Storage Systems	Rollers	1	1.00	80	0.38
Installation of Dattery Energy Storage Systems	Skid Steer Loaders	2	3.00	65	0.37
Installation of Dattery Energy Storage Systems	Tractors/Loaders/Backhoes	2	2.50	97	0.37
Installation of Dattery Energy Storage Systems	Tractors/Loaders/Backhoes	2	2.50	97	0.37
Installation of Dattery Energy Storage Systems	Trenchers	4	2.50	78	0.50
Installation of Dattery Energy Storage Systems	Welders	0	8.00	46	0.45
Gen-Tie Installation	Aerial Lifts	3	8.30	63	0.31

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Gen-Tie Installation	Bore/Drill Rigs	1	6.70	221	0.50
Gen-Tie Installation	Cranes	2	8.30	231	0.29
Gen-Tie Installation	Forklifts	0	8.00	89	0.20
Gen-Tie Installation	Generator Sets	0	8.00	84	0.74
Gen-Tie Installation	Graders	1	4.00	187	0.41
Gen-Tie Installation	Off-Highway Tractors	2	8.30	124	0.44
Gen-Tie Installation	Off-Highway Tractors	2	8.30	124	0.44
Gen-Tie Installation	Off-Highway Tractors	3	3.30	124	0.44
Gen-Tie Installation	Rollers	2	4.00	80	0.38
Gen-Tie Installation	Skid Steer Loaders	3	4.00	65	0.37
Gen-Tie Installation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Gen-Tie Installation	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	22	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Installation of Solar Arrays	84	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Installation of Inverters, Transformers, etc.	26	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Installation of Dattery Energy Storage	14	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie Installation	21	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Fugitive Dust					0.0537	0.0000	0.0537	5.8000e-003	0.0000	5.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0947	1.0158	1.0661	1.9500e-003		0.0436	0.0436		0.0401	0.0401	0.0000	171.4028	171.4028	0.0554	0.0000	172.7887
Total	**0.0947**	**1.0158**	**1.0661**	**1.9500e-003**	**0.0537**	**0.0436**	**0.0973**	**5.8000e-003**	**0.0401**	**0.0459**	**0.0000**	**171.4028**	**171.4028**	**0.0554**	**0.0000**	**172.7887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Fugitive Dust					0.0209	0.0000	0.0209	2.2600e-003	0.0000	2.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0947	1.0158	1.0661	1.9500e-003		0.0436	0.0436		0.0401	0.0401	0.0000	171.4026	171.4026	0.0554	0.0000	172.7884
Total	**0.0947**	**1.0158**	**1.0661**	**1.9500e-003**	**0.0209**	**0.0436**	**0.0646**	**2.2600e-003**	**0.0401**	**0.0424**	**0.0000**	**171.4026**	**171.4026**	**0.0554**	**0.0000**	**172.7884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.3 Installation of Solar Arrays - 2025

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.3209	2.5384	2.9360	4.1800e-003		0.1213	0.1213		0.1139	0.1139	0.0000	341.8376	341.8376	0.0808	0.0000	343.8567
Total	**0.3209**	**2.5384**	**2.9360**	**4.1800e-003**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.1139**	**0.1139**	**0.0000**	**341.8376**	**341.8376**	**0.0808**	**0.0000**	**343.8567**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

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					

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.3209	2.5384	2.9360	4.1800e-003		0.1213	0.1213		0.1139	0.1139	0.0000	341.8372	341.8372	0.0808	0.0000	343.8563
Total	**0.3209**	**2.5384**	**2.9360**	**4.1800e-003**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.1139**	**0.1139**	**0.0000**	**341.8372**	**341.8372**	**0.0808**	**0.0000**	**343.8563**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.3 Installation of Solar Arrays - 2026

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-Road	0.1167	0.9231	1.0676	1.5200e-003		0.0441	0.0441		0.0414	0.0414	0.0000	124.3046	124.3046	0.0294	0.0000	125.0388
Total	**0.1167**	**0.9231**	**1.0676**	**1.5200e-003**	**0.0000**	**0.0441**	**0.0441**	**0.0000**	**0.0414**	**0.0414**	**0.0000**	**124.3046**	**124.3046**	**0.0294**	**0.0000**	**125.0388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

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	0.1167	0.9231	1.0676	1.5200e-003		0.0441	0.0441		0.0414	0.0414	0.0000	124.3044	124.3044	0.0294	0.0000	125.0387

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.1167**	**0.9231**	**1.0676**	**1.5200e-003**	**0.0000**	**0.0441**	**0.0441**	**0.0000**	**0.0414**	**0.0414**	**0.0000**	**124.3044**	**124.3044**	**0.0294**	**0.0000**	**125.0387**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.4 Installation of Inverters, Transformers, etc - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1145	1.1229	0.9380	1.7100e-003		0.0617	0.0617		0.0568	0.0568	0.0000	150.0081	150.0081	0.0485	0.0000	151.2209
Total	**0.1145**	**1.1229**	**0.9380**	**1.7100e-003**		**0.0617**	**0.0617**		**0.0568**	**0.0568**	**0.0000**	**150.0081**	**150.0081**	**0.0485**	**0.0000**	**151.2209**

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Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1145	1.1229	0.9380	1.7100e-003		0.0617	0.0617		0.0568	0.0568	0.0000	150.0079	150.0079	0.0485	0.0000	151.2208
Total	**0.1145**	**1.1229**	**0.9380**	**1.7100e-003**		**0.0617**	**0.0617**		**0.0568**	**0.0568**	**0.0000**	**150.0079**	**150.0079**	**0.0485**	**0.0000**	**151.2208**

Mitigated Construction Off-Site

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.4 Installation of Inverters, Transformers, etc - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0416	0.4083	0.3411	6.2000e-004		0.0225	0.0225		0.0207	0.0207	0.0000	54.5484	54.5484	0.0176	0.0000	54.9894
Total	**0.0416**	**0.4083**	**0.3411**	**6.2000e-004**		**0.0225**	**0.0225**		**0.0207**	**0.0207**	**0.0000**	**54.5484**	**54.5484**	**0.0176**	**0.0000**	**54.9894**

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0416	0.4083	0.3411	6.2000e-004		0.0225	0.0225		0.0207	0.0207	0.0000	54.5483	54.5483	0.0176	0.0000	54.9894
Total	**0.0416**	**0.4083**	**0.3411**	**6.2000e-004**		**0.0225**	**0.0225**		**0.0207**	**0.0207**	**0.0000**	**54.5483**	**54.5483**	**0.0176**	**0.0000**	**54.9894**

Mitigated Construction Off-Site

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.5 Installation of Dattery Energy Storage Systems - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0546	0.5426	0.5553	9.1000e-004		0.0283	0.0283		0.0261	0.0261	0.0000	80.1768	80.1768	0.0259	0.0000	80.8251
Total	**0.0546**	**0.5426**	**0.5553**	**9.1000e-004**		**0.0283**	**0.0283**		**0.0261**	**0.0261**	**0.0000**	**80.1768**	**80.1768**	**0.0259**	**0.0000**	**80.8251**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0546	0.5426	0.5553	9.1000e-004		0.0283	0.0283		0.0261	0.0261	0.0000	80.1767	80.1767	0.0259	0.0000	80.8250
Total	**0.0546**	**0.5426**	**0.5553**	**9.1000e-004**		**0.0283**	**0.0283**		**0.0261**	**0.0261**	**0.0000**	**80.1767**	**80.1767**	**0.0259**	**0.0000**	**80.8250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Installation of Dattery Energy Storage Systems - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0198	0.1973	0.2019	3.3000e-004		0.0103	0.0103		9.4700e-003	9.4700e-003	0.0000	29.1552	29.1552	9.4300e-003	0.0000	29.3909
Total	**0.0198**	**0.1973**	**0.2019**	**3.3000e-004**		**0.0103**	**0.0103**		**9.4700e-003**	**9.4700e-003**	**0.0000**	**29.1552**	**29.1552**	**9.4300e-003**	**0.0000**	**29.3909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Off-Road	0.0198	0.1973	0.2019	3.3000e-004		0.0103	0.0103		9.4700e-003	9.4700e-003	0.0000	29.1552	29.1552	9.4300e-003	0.0000	29.3909
Total	**0.0198**	**0.1973**	**0.2019**	**3.3000e-004**		**0.0103**	**0.0103**		**9.4700e-003**	**9.4700e-003**	**0.0000**	**29.1552**	**29.1552**	**9.4300e-003**	**0.0000**	**29.3909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

3.6 Gen-Tie Installation - 2025

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Off-Road	0.0353	0.3366	0.4791	9.4000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	82.5255	82.5255	0.0267	0.0000	83.1927
Total	**0.0353**	**0.3366**	**0.4791**	**9.4000e-004**		**0.0137**	**0.0137**		**0.0126**	**0.0126**	**0.0000**	**82.5255**	**82.5255**	**0.0267**	**0.0000**	**83.1927**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0353	0.3366	0.4791	9.4000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	82.5254	82.5254	0.0267	0.0000	83.1926

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0353**	**0.3366**	**0.4791**	**9.4000e-004**		**0.0137**	**0.0137**		**0.0126**	**0.0126**	**0.0000**	**82.5254**	**82.5254**	**0.0267**	**0.0000**	**83.1926**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0000**	**0.0000**

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					

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	3.4600e-003	6.4600e-003	0.0311	8.0000e-005	0.3244	7.0000e-005	0.3245	0.0327	7.0000e-005	0.0328	0.0000	7.1126	7.1126	3.6000e-004	4.3000e-004	7.2489
Unmitigated	3.4600e-003	6.4600e-003	0.0311	8.0000e-005	0.3244	7.0000e-005	0.3245	0.0327	7.0000e-005	0.0328	0.0000	7.1126	7.1126	3.6000e-004	4.3000e-004	7.2489

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	11.25	0.00	0.00	20,475	20,475
Total	11.25	0.00	0.00	20,475	20,475

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.513428	0.052400	0.170533	0.154669	0.027725	0.006508	0.008258	0.037236	0.000591	0.000187	0.024119	0.001094	0.003253

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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**

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

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

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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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
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**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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
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**

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	2	1.30	260	84	0.74	Diesel
Off-Highway Tractors	2	1.10	365	25	0.44	Diesel
Pumps	5	1.80	260	84	0.74	Diesel
Tractors/Loaders/Backhoes	2	2.20	260	97	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Generator Sets	0.0113	0.1012	0.1546	2.8000e-004		4.0300e-003	4.0300e-003		4.0300e-003	4.0300e-003	0.0000	23.8800	23.8800	8.8000e-004	0.0000	23.9021
Pumps	0.0419	0.3548	0.5434	9.6000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	82.6615	82.6615	3.3500e-003	0.0000	82.7451
Tractors/Loaders/Backhoes	9.4500e-003	0.0955	0.1594	2.2000e-004		3.8700e-003	3.8700e-003		3.5600e-003	3.5600e-003	0.0000	19.5924	19.5924	6.3400e-003	0.0000	19.7509
Total	**0.0626**	**0.5515**	**0.8574**	**1.4600e-003**		**0.0227**	**0.0227**		**0.0223**	**0.0223**	**0.0000**	**126.1339**	**126.1339**	**0.0106**	**0.0000**	**126.3980**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Daylight Legacy Solar+Gen Tie - Kings County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 3: CT-EMFAC2021 Modeling, Traffic Emissions, and Health Risk Calculations

File Name: Kings (SJV) - 2025 - Annual.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 7/20/2023 13:07
Area: Kings (SJV)
Analysis Year: 2025
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0	0.552	0.448
Truck 2	1	0.979	0.014
Non-Truck	0	0.006	0.963

==========

Road Type: Local Rural
Silt Loading Factor: CARB 1.6 g/m2
Precipitation Correction: CARB P = 41 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.012878	0.010739	0.008223	0.006766	0.005991	0.006133	0.007167	0.009092	0.011908	0.015616	0.020215	0.025666	0.031945	0.031947	0.031947
PM10	0.013465	0.011228	0.008597	0.007074	0.006264	0.006412	0.007492	0.009504	0.012448	0.016323	0.02113	0.026827	0.033391	0.033392	0.033392
NOx	10.214674	7.311475	4.802905	3.662858	2.82883	2.132907	1.588392	1.195078	0.952848	0.861631	0.921386	1.131441	1.491076	1.491222	1.491222
CO	1.354318	0.884113	0.527474	0.37808	0.300668	0.243684	0.196533	0.158268	0.128386	0.106617	0.092834	0.089426	0.092797	0.093711	0.093964
HC	0.161681	0.099642	0.053918	0.03524	0.027139	0.022185	0.018628	0.016164	0.014628	0.013924	0.013996	0.015213	0.017009	0.01712	0.017139
TOG	0.206423	0.125727	0.066851	0.04311	0.033129	0.027061	0.022675	0.019661	0.017849	0.017139	0.017473	0.019205	0.021747	0.021872	0.0219
ROG	0.132535	0.077484	0.03891	0.023909	0.01819	0.014784	0.012274	0.010614	0.009774	0.009736	0.010492	0.012002	0.014207	0.014298	0.014322
1,3-Butadiene	0.00002	0.000013	0.000009	0.000006	0.000005	0.000004	0.000003	0.000003	0.000003	0.000003	0.000003	0.000003	0.000003	0.000003	0.000003
Acetaldehyde	0.000085	0.000059	0.000044	0.000035	0.00003	0.000026	0.000024	0.000023	0.000022	0.000022	0.000022	0.000023	0.000024	0.000025	0.000025
Acrolein	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzene	0.000316	0.000203	0.000138	0.000099	0.000075	0.00006	0.00005	0.000045	0.000041	0.00004	0.000041	0.000044	0.00005	0.000054	0.000054
Diesel PM	0.011298	0.011148	0.008546	0.007014	0.006245	0.006401	0.007485	0.009498	0.01244	0.016311	0.021111	0.026801	0.033355	0.033355	0.033355
Ethylbenzene	0.00009	0.000058	0.000039	0.000028	0.000021	0.000017	0.000014	0.000012	0.000011	0.000011	0.000011	0.000012	0.000014	0.000015	0.000015
Formaldehyde	0.000199	0.000136	0.0001	0.000079	0.000066	0.000058	0.000052	0.000049	0.000047	0.000047	0.000047	0.000049	0.000052	0.000054	0.000054
Naphthalene	0.00003	0.000019	0.000013	0.000009	0.000007	0.000005	0.000005	0.000004	0.000004	0.000004	0.000004	0.000004	0.000005	0.000005	0.000005
POM	0.000005	0.000003	0.000002	0.000002	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
DEOG	0.084391	0.083088	0.041056	0.024857	0.019107	0.015591	0.012969	0.011228	0.010359	0.010354	0.011206	0.012862	0.015254	0.015276	0.015304
CO2	2933.371338	2506.014	2056.55	1811.444	1649.334	1531.256	1441.508	1379.583	1345.027	1337.44	1358.504	1406.169	1479.833	1480.036	1480.036
N2O	0.393868	0.392922	0.322373	0.284158	0.260245	0.241845	0.227782	0.218002	0.21246	0.211125	0.214297	0.221718	0.233287	0.233296	0.2333
CH4	0.06035	0.040279	0.023839	0.016647	0.013008	0.010717	0.009108	0.00793	0.007049	0.006387	0.005896	0.005969	0.006085	0.0061	0.006101
BC	0.000027	0.000019	0.000014	0.000011	0.000009	0.000008	0.000008	0.000007	0.000007	0.000007	0.000007	0.000007	0.000008	0.000008	0.000008

Fleet Average Fuel Consumption (gallons/veh-mile)

Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Gasoline	0.006006	0.004876	0.003987	0.003315	0.002833	0.002514	0.002331	0.002256	0.002264	0.00233	0.002425	0.002523	0.0026	0.002625	0.002624
Diesel	0.242957	0.242485	0.199156	0.175671	0.160978	0.149654	0.140997	0.134985	0.131603	0.130832	0.132867	0.137501	0.144726	0.144726	0.144726

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Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	0.031867
TOG	0.03407
ROG	0.03407
1,3-Butadiene	0
Benzene	0.000492
Ethylbenzene	0.000318
Naphthalene	0
HFC	0.065254

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.008511
PM10	0.034042

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.045919	0.045919	0.045335	0.044371	0.043144	0.042418	0.036058	0.031503	0.026948	0.023668	0.023668	0.023668	0.023668	0.023668	0.023668
PM10	0.131196	0.131196	0.129528	0.126773	0.123268	0.121193	0.103022	0.090008	0.076994	0.067624	0.067624	0.067624	0.067624	0.067624	0.067624

==========

Fleet Average Road Dust Factors, Local Rural (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	5.313897
PM10	35.425977

==========END==========

File Name: Kings (SJV) - 2025 - Annual.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 7/20/2023 16:06
Area: Kings (SJV)
Analysis Year: 2025
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Within Cat	Gas VMT Fraction Within Category
Truck 1	0.07	0.54	0.453
Truck 2	0	0.975	0.013
Non-Truck	0.93	0.006	0.949

==========

Road Type: Local Rural
Silt Loading Factor: CARB 1.6 g/m2
Precipitation Correction: CARB P = 41 days N = 365 days

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.011803	0.008214	0.005972	0.004515	0.003538	0.002859	0.002383	0.002055	0.001849	0.001747	0.001746	0.001848	0.002063	0.002282	0.002282
PM10	0.012667	0.008794	0.006381	0.004817	0.003771	0.003045	0.002537	0.002189	0.001969	0.001862	0.001862	0.001971	0.002201	0.002433	0.002433
NOx	0.221663	0.19519	0.172619	0.155919	0.143812	0.134733	0.128198	0.123969	0.121898	0.121908	0.123976	0.128126	0.134449	0.139906	0.139906
CO	1.626149	1.434167	1.275815	1.146624	1.039886	0.949402	0.872135	0.806278	0.750598	0.704456	0.667338	0.639465	0.621693	0.620176	0.620176
HC	0.143445	0.094626	0.065443	0.047689	0.036543	0.02928	0.02447	0.021326	0.019408	0.018506	0.01852	0.019504	0.021633	0.023294	0.023294
TOG	0.160128	0.106434	0.074077	0.054259	0.041758	0.033542	0.028042	0.024401	0.022139	0.021026	0.020955	0.021987	0.024312	0.026158	0.026158
ROG	0.115875	0.077501	0.054283	0.039889	0.030753	0.024703	0.020618	0.01789	0.016179	0.015308	0.01522	0.015953	0.017656	0.019025	0.019025
1,3-Butadiene	0.000477	0.000317	0.000219	0.000159	0.000121	0.000097	0.000081	0.00007	0.000064	0.000062	0.000062	0.000066	0.000073	0.000078	0.000078
Acetaldehyde	0.002856	0.002147	0.0016	0.001239	0.000998	0.000823	0.000692	0.000593	0.000522	0.000475	0.000451	0.000462	0.000481	0.000495	0.000495
Acrolein	0.000035	0.000023	0.000015	0.000011	0.000008	0.000007	0.000006	0.000005	0.000005	0.000005	0.000005	0.000005	0.000006	0.000006	0.000006
Benzene	0.00561	0.003721	0.002566	0.001855	0.001407	0.001119	0.00093	0.000808	0.000737	0.000706	0.000709	0.00075	0.00083	0.000884	0.000884
Diesel PM	0.004161	0.003421	0.002796	0.002295	0.001899	0.001582	0.001331	0.001141	0.00101	0.000935	0.000918	0.000929	0.000942	0.000953	0.000953
Ethylbenzene	0.001656	0.001087	0.000744	0.000534	0.000403	0.00032	0.000266	0.000231	0.000212	0.000204	0.000206	0.00022	0.000245	0.000262	0.000262
Formaldehyde	0.006314	0.004683	0.003464	0.002668	0.002138	0.001759	0.001477	0.001267	0.001119	0.001023	0.000977	0.001003	0.001052	0.001086	0.001086
Naphthalene	0.000474	0.000312	0.000214	0.000154	0.000116	0.000092	0.000076	0.000066	0.000061	0.000058	0.000059	0.000062	0.000069	0.000074	0.000074
POM	0.000153	0.000107	0.000077	0.000058	0.000046	0.000037	0.000031	0.000027	0.000024	0.000022	0.000022	0.000023	0.000024	0.000025	0.000025
DEOG	0.020914	0.017144	0.013734	0.011168	0.009323	0.007842	0.006626	0.005644	0.00488	0.004327	0.003983	0.003989	0.003999	0.004006	0.004006
CO2	770.336143	628.3672	515.5324	430.2956	368.3959	326.1619	300.6351	288.4856	286.761	292.941	303.5682	315.5771	326.3721	332.1253	332.1253
N2O	0.019358	0.016742	0.014198	0.012391	0.011071	0.010006	0.00926	0.008705	0.008345	0.00821	0.008296	0.008429	0.008688	0.008912	0.008912
CH4	0.023984	0.016473	0.011716	0.008839	0.007001	0.00579	0.004984	0.004458	0.00414	0.004009	0.00403	0.004219	0.004592	0.00487	0.00487
BC	0.002986	0.002082	0.001522	0.001152	0.000904	0.000731	0.00061	0.000526	0.000473	0.000448	0.000448	0.000466	0.000499	0.000518	0.000518

Fleet Average Fuel Consumption (gallons/veh-mile)

Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Gasoline	0.083761	0.069461	0.057583	0.047932	0.040902	0.036318	0.03365	0.032416	0.032481	0.033495	0.034858	0.036207	0.037191	0.036765	0.036765
Diesel	0.00532	0.004634	0.003905	0.003365	0.002925	0.002567	0.002302	0.002098	0.001961	0.001905	0.001918	0.001933	0.001957	0.00197	0.00197

Fleet Average Natural Gas Consumption (diesel-equivalent gallons/veh-mile)

Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Natural Gas	0.000145	0.000318	0.000176	0.000119	0.000089	0.00007	0.000058	0.000048	0.000042	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004

Fleet Average Electricity Consumption (kilowatt-hours/veh-mile)

Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Electricity	0.032845	0.022499	0.017794	0.017752	0.017368	0.016859	0.01583	0.016271	0.015639	0.014005	0.013281	0.013646	0.014221	0.022811	0.022811

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Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	1.121726
TOG	1.19927
ROG	1.19927
1,3-Butadiene	0
Benzene	0.017309
Ethylbenzene	0.011204
Naphthalene	0
HFC	0.020316

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002038
PM10	0.008152

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.004257	0.004798	0.005338	0.005877	0.006186	0.006279	0.006372	0.005933	0.00496	0.003986	0.00335	0.00305	0.002749	0.002749	0.002749
PM10	0.012164	0.013708	0.015252	0.016792	0.017673	0.017939	0.018204	0.016952	0.014172	0.011389	0.009571	0.008713	0.007855	0.007855	0.007855

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Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.52643
PM10	3.509536

==========END==========

	Description	Travel Distance (miles)	Idle Time (min)	Release Height (ft)	Release Height (m)	Initial Vertical Dimention (m)	Initial Vertical Dispersion (m)	Average Speed (mph)	Trips per Day	Emissions (g/day)	Emissions (grams/hr)	Emissions (grams/sec)	Emissions (ton/yr)
Offsite Roadway	DPM from Traffic	0.76	0	11.15	3.4	6.80	3.16	45	24	0.16	0.01	3.60831E-06	0.00003
(Avenal Cutoff Road between Nevada and Laurel)	TOG Ex from Traffic	0.76	0	11.15	3.4	6.80	3.16			0.47	0.04	1.08912E-05	0.00009
Onsite Trucks	DPM from Trucks Onsite	6.00	5	11.15	3.4	6.8	3.16	15	205	11.50	0.96	0.000266195	0.002282
	TOG Ex from Trucks Onsite	6.00	5	11.15	3.4	6.8	3.16			49.46	4.12	0.00114488	0.01
Onsite Worker Vehicles	DPM from Worker Traffic Onsite	3.00	0	4.27	1.3	2.87	1.33			3.74	0.31	8.6566E-05	0.000742
	TOG Ex from Worker Traffic Onsite	3.00	0	4.27	1.3	2.87	1.33	15	446	99.08	8.26	0.002293472	0.019659
	TOG Evap from Work Traffic Onsite	3.00	0	4.27	1.3	2.87	1.33			106.93	8.91	0.002475345	0.021218

2025 Emission Factors		Trucks		Worker Vehicles
	Speed Category	Idle	Travel	
	Travel Speed (mph)	(g/veh - min)	15	15
Emisions per vehicle (g/VMT)	DPM	0.0009415	0.008546	0.00280
	TOG Exhaust	0.017201917	0.025795	0.07408
	TOG Evap			0.07995

Daylight Legacy Solar Project - Kings Co, CA

Haul Roadway Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	DPM Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)
2025	Haul	DPM_Haul	0.00003	0.1	0.00003	3.61E-06
2025	Haul	TOGX_Haul	0.0001	0.2	0.0001	1.089E-05

Construction Hours

hr/day =	12	(7am - 7pm)
days/yr =	180	
hours/year =	2160	

Construction Site DPM Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	DPM Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2025	Construction	DPM_CONST	0.3486	697.2	0.32280	4.07E-02	8744668	4.65E-09

Construction Hours

hr/day =	12	(7am - 7pm)
days/yr =	180	
hours/year =	2160	

Construction Site TOG Exhaust Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	DPM Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2025	Construction	TOGX_CONST	0.02947	58.9	0.02729	3.44E-03	8744668	3.93E-10

Construction Hours

hr/day =	12	(7am - 7pm)
days/yr =	180	
hours/year =	2160	

Construction Site TOG Evap Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	DPM Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2025	Construction	TOGV_CONST	0.0212	42.4	0.01965	2.48E-03	8744668	2.83E-10

Construction Hours

hr/day =	12	(7am - 7pm)
days/yr =	180	
hours/year =	2160	

Maintenace DPM Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	DPM Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2026+	Operations	DPM	0.02270	45.4	0.01037	1.31E-03	8744668	1.49E-10

Maintenance Hours

hr/day =	12	(7am - 7pm)
days/yr =	365	
hours/year =	4380	

Daylight Lagacy Solar Project - Kings Co, CA - Impacts from Construction
AERMOD Risk Modeling Parameters
MEI Receptor

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age --> Parameter	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - MEI Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2025	10	0.0064	0.0006	0.0004	0.087	0.000	0.0000	0.09
1	1	0 - 1	2025	10	0.0064	0.0006	0.0004	1.050	0.001	0.0000	1.05
2	1	1 - 2	2026	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2027	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
4	1	3 - 4	2028	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
5	1	4 - 5	2029	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
6	1	5 - 6	2030	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
7	1	6 - 7	2031	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
8	1	7 - 8	2032	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
9	1	8 - 9	2033	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
10	1	9 - 10	2034	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
20	1	19-20	2044	1	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000
30	1	29-30	2054	1	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000
40	1	39-40	2064	1	0.000	0.000	0.000	0.00	0.000	0.0000	0.00
50	1	49-50	2074	1	0.000	0.000	0.000	0.00	0.000	0.0000	0.00
60	1	59-60	2084	1	0.000	0.000	0.000	0.00	0.000	0.0000	0.00
70	1	69-70	2094	1	0.000	0.000	0.000	0.00	0.000	0.0000	0.00
Total Increased Cancer Risk								1.14	0.001	0.000	**1.14**

Maximum Chronic Hazard Index
0.0013

* Third trimester of pregnancy

Daylight Lagacy Solar Project - Kings Co, CA - Impacts from Maintenance
AERMOD Risk Modeling Parameters
MEI Receptor

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Cancer Risk by Year -MEI Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)	Cancer Risk (per million)	TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**DPM**	
0	0.25	-0.25 - 0*	2026	10	0.0002	0.003	0.003
1	1	0 - 1	2026	10	0.0002	0.034	0.03
2	1	1 - 2	2027	10	0.0002	0.034	0.03
3	1	2 - 3	2028	3	0.0002	0.005	0.01
4	1	3 - 4	2029	3	0.0002	0.005	0.01
5	1	4 - 5	2030	3	0.0002	0.005	0.01
6	1	5 - 6	2031	3	0.0002	0.005	0.01
7	1	6 - 7	2032	3	0.0002	0.005	0.01
8	1	7 - 8	2033	3	0.0002	0.005	0.01
9	1	8 - 9	2034	3	0.0002	0.005	0.01
10	1	9 - 10	2035	3	0.0002	0.005	0.01
20	1	19-20	2045	1	0.0002	0.0006	0.001
30	1	29-30	2055	1	0.0002	0.0006	0.001
40	1	39-40	2065	1	0.000	0.0006	0.001
50	1	49-50	2075	1	0.000	0.0006	0.001
60	1	59-60	2085	1	0.000	0.0006	0.001
70	1	69-70	2095	1	0.000	0.0006	0.001
Total Increased Cancer Risk						0.18	**0.18**

Maximum Chronic Hazard Index
0.00004

* Third trimester of pregnancy

Daylight Lagacy Solar Project - Kings Co, CA - Impacts from Construction & Maintenance
AERMOD Risk Modeling Parameters
MEI Receptor

Emissions Years	2025
Receptor Information	
Number of Receptors	21
Receptor Height (in m) =	1.5 (1st Floor)
Receptor Distances =	Residential Locations
Meteorological Conditions	
SJVAPCD Lemoore Met Data	2012 - 2016
Land Use Classification	rural
Wind Speed =	variable
Wind Direction =	variable

Construction

Analysis Years	TAC Concentrations (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2025	0.00639	0.00061	0.00041

Maintenance

Analysis Years	TAC Concentrations (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2026 - 2096	0.00021	NA	NA

Daylight Legacy Solar Project - Kings Co, CA - Impacts from Construction & Maintenance
AERMOD Risk Modeling Parameters
MEI Receptor

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Total Project Cancer Risk by Year - MEI Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**		**Maximum Hazard Index**
0	0.25	-0.25 - 0*	2025	10	0.0064	0.0006	0.0004	0.087	0.000047	0.000002	0.09	0.0013
1	1	0 - 1	2025	10	0.0064	0.0006	0.0004	1.050	0.000189	0.000008	1.05	0.00004
2	1	1 - 2	2026	10	0.0002			0.034			0.03	
3	1	2 - 3	2027	3	0.0002			0.005			0.01	
4	1	3 - 4	2028	3	0.0002			0.005			0.01	
5	1	4 - 5	2029	3	0.0002			0.005			0.01	
6	1	5 - 6	2030	3	0.0002			0.005			0.01	
7	1	6 - 7	2031	3	0.0002			0.005			0.01	
8	1	7 - 8	2032	3	0.0002			0.005			0.01	
9	1	8 - 9	2033	3	0.0002			0.005			0.01	
10	1	9 - 10	2034	3	0.0002			0.005			0.01	
20	1	19-20	2044	1	0.0002			0.001			0.001	
30	1	29-30	2054	1	0.0002			0.001			0.001	
40	1	39-40	2064	1	0.0002			0.001			0.001	
50	1	49-50	2074	1	0.0002			0.001			0.001	
60	1	59-60	2084	1	0.0002			0.001			0.001	
70	1	69-70	2094	1	0.0002			0.001			0.001	
Total Increased Cancer Risk								1.28	0.0002	0.00001	**1.28**	

* Third trimester of pregnancy

APPENDIX B

Biological Resources Report

Prepared by

Live Oak Associates

November 2023

LIVE OAK
ASSOCIATES, INC.

DAYLIGHT LEGACY SOLAR PROJECT
BIOLOGICAL ASSESSMENT
KINGS COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

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November 28, 2023 PN 2799-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., (LOA) conducted an investigation of the biological resources of the Daylight Legacy Solar project site ("Project Site", "Site") in Kings County, California.

LOA evaluated likely impacts to biological resources resulting from development of an approximately 2,106.9-acre photo-voltaic solar energy project on the Daylight Legacy Solar site. The project, which is in west-central Kings County, is bound by Avenal Cutoff Road to the northwest, 26th Avenue and a solar farm to the east, and Manteca Avenue to the south. An approximately 2-mile-long gen-tie route is also proposed north of Avenal Cutoff Road along the 26th Avenue alignment, with tie-in at the existing PG&E Mustang Switching Station. An alternative gen-tie route, extending from the south project boundary southward for one mile to Nevada Avenue is also under consideration. On July 26, 2023, LOA conducted a site visit 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 approximately 2,106.9-acre Project Site consists of agricultural lands within a region dominated by similar agricultural lands. Several agricultural canals and irrigation ditches run through and along the site. There are no buildings, sheds, or other structures on the Daylight Solar project site. The only locally occurring special status species for which the Project Site may provide highly suitable habitat for is burrowing owl as well as foraging habitat for Swainson's hawks. Potentially suitable habitat was found for fourteen special status animal species known to occur (or have reasonable potential to occur) as regular foragers or residents of the Project Site. These include the western snowy plover, mountain plover, white-faced ibis, Swainson's hawk, northern harrier, white-tailed kite, yellow-headed blackbird, western burrowing owl, long-eared owl, loggerhead shrike, tricolored blackbird, Townsend's big-eared bat, pallid bat, and California mastiff bat. Impacts to Swainson's hawks will be mitigated through avoidance of active nests observed during required preconstruction surveys; 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 burrowing owls, raptors, loggerhead shrike, tricolored blackbird, and other nesting birds protected by the federal Migratory Bird Treaty Act. 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 observed during LOA's field surveys. However, if these species were to occur onsite, then impacts to kit fox and badger are potentially significant. Prior to the construction of the solar development, preconstruction surveys will be conducted. These preconstruction surveys and, if needed, avoidance measures will reduce construction-related impacts to kit fox and badgers to a less-than-significant level. Impacts to wildlife movements and movement corridors will be minimized through the planned retention of canals as well as the construction of wildlife-friendly fencing.

Jurisdictional waters are presumed to be absent from the Project Site.

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 PROJECT DESCRIPTION 1
1.2 REPORT OBJECTIVES 4
1.3 STUDY METHODOLOGY 4

2 EXISTING CONDITIONS 6
2.1 REGIONAL SETTING 6
2.2 PROJECT SITE 7
2.3 BIOTIC HABITATS/LAND USES 7
2.3.1 Agricultural Fields 9
2.3.2 Agricultural Canals and Ditches 10
2.3.3 Developed 10
2.4 WILDLIFE MOVEMENT CORRIDORS 10
2.5 SPECIAL STATUS PLANTS AND ANIMALS 11
2.6 ENDANGERED, THREATENED, OR SPECIAL STATUS ANIMAL SPECIES MERITING FURTHER DISCUSSION 20
2.6.1 Swainson's Hawk (*Buteo swainsoni*) 20
2.6.2 Burrowing Owl (*Athene cunicularia*) 23
2.6.3 San Joaquin Kit Fox (*Vulpes macrotus mutica*) 25
2.6.4 Other Migratory Birds and their Nests. Federal Listing Status: Protected; State Listing Status: Protected 27
2.7 JURISDICTIONAL WATERS 27

3 REGULATORY FRAMEWORK 29
3.1 SIGNIFICANCE CRITERIA 29
3.2 RELEVANT GOALS, POLICIES, AND LAWS 30
3.2.1 Threatened and Endangered Species 30
3.2.2 Migratory Birds 30
3.2.3 Birds of Prey 30
3.2.4 Jurisdictional Waters and Wetlands 31
3.2.5 Local Policies or Habitat Conservation Plans 33
3.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION 33
3.3.1 Loss of Habitat for Special Status Plants 33
3.3.2 Loss of Habitat for Special Status Animals 34
3.3.3 Disturbance to Active Raptor and Migratory Bird Nests 35
3.3.4 Impacts to San Joaquin Kit Fox 37
3.3.5 Impacts to American Badgers 39
3.3.6 Impacts to Nesting and Foraging Habitat for Swainson's Hawk 41
3.3.7 Impacts to Burrowing Owls 42
3.3.8 Impacts to Wildlife Movement Corridors 44
3.3.9 Disturbance to Native Wildlife Nursery Sites 45
3.3.10 Impacts to Jurisdictional Waters and Sensitive Aquatic Habitats 45
3.3.11 Local Policies or Habitat Conservation Plans 45

4 LITERATURE CITED.....47

APPENDIX A: ANALYSIS OF CUMULATIVE IMPACTS TO SWAINSON'S HAWK FORAGING HABITAT IN THE VICINITY OF THE DAYLIGHT LEGACY SOLAR PROJECT SITE.....50

APPENDIX B: ANALYSIS OF POTENTIAL IMPACTS TO BURROWING OWL HABITAT ASSOCIATED WITH THE DAYLIGHT LEGACY SOLAR PROJECT.....60

1 INTRODUCTION

Live Oak Associates, Inc. (LOA) has prepared the following report. This report describes the biotic resources of the proposed approximately 2,106.9-acre Daylight Solar project site ("Project Site, site"), and evaluates likely impacts to biological resources resulting from the construction of these projects.

The Daylight Solar Project Site is located in west-central Kings County and is bounded by Avenal Cutoff Road to the northwest, 26th Avenue and solar farm to the east, and Manteca Avenue to the south. An approximately 2-mile-long gen-tie route is also proposed north of Avenal Cutoff Road along the 26th Avenue alignment, with tie-in at the existing PG&E Mustang Switching Station. An alternative gen-tie route, extending from the south project boundary southward for one mile to Nevada Avenue is also under consideration. (Figure 1). The Project Site is located within the Westhaven U.S. Geological Survey (USGS) 7.5-minute quadrangle.

The Daylight Legacy Solar project site is nearly level with elevations ranging from 254 feet above mean sea level (amsl) to 265 feet amsl. There are several agricultural canals and irrigation ditches running through and along the site. There are no buildings, sheds, or other structures on the Daylight Legacy Solar project site.

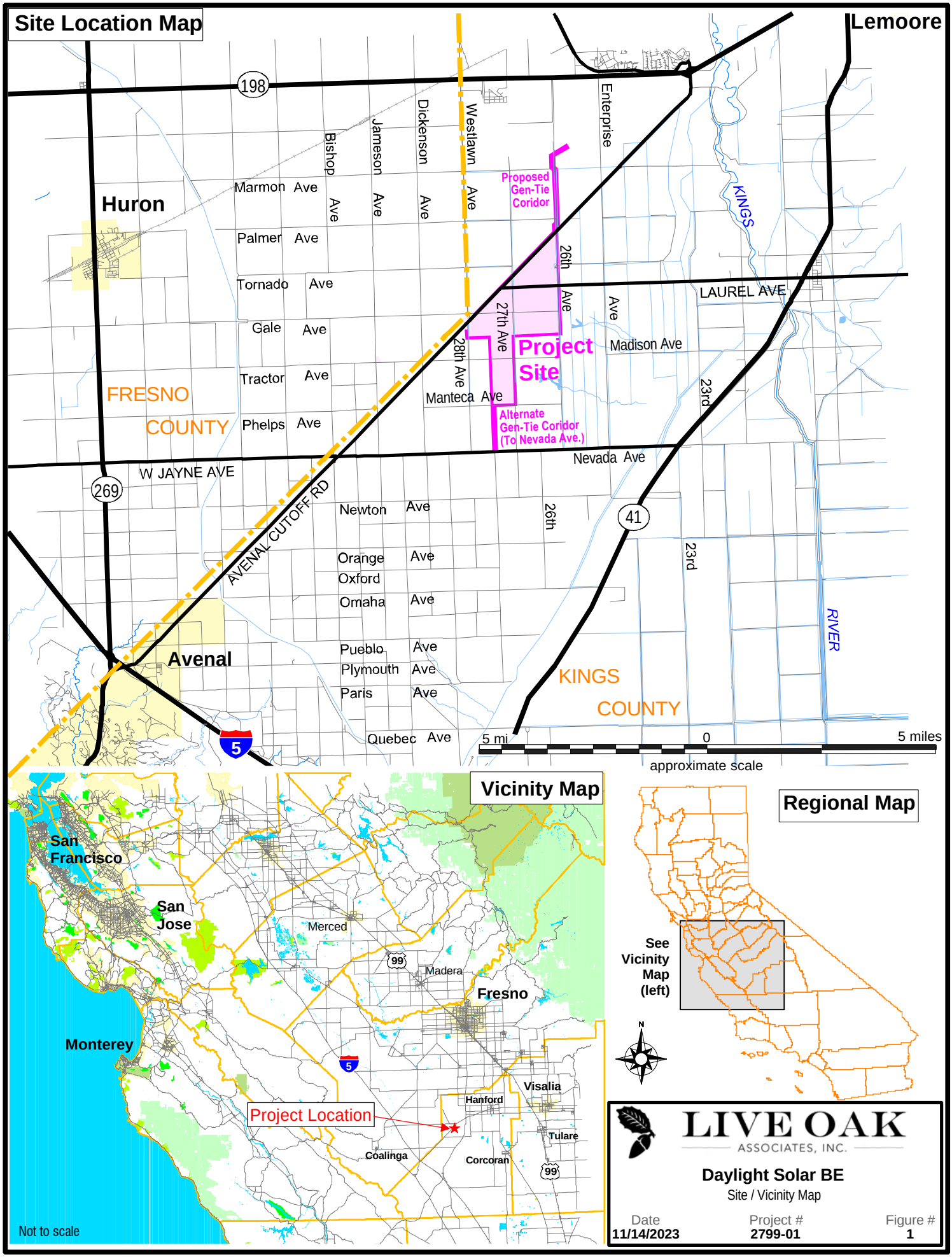
1.1 PROJECT DESCRIPTION

Solar Generating Facility

The Daylight Legacy Solar Project is planned to generate at total of 300 MW (AC) of electrical output from solar photovoltaic (PV) modules. The project is planned to be constructed over a 12-month period in 2025 and 2026.

The solar modules would be mounted on a series of horizontal single-axis trackers which would be oriented north-south and rotate the solar arrays in an east-west direction. The solar modules produce low voltage direct current (DC) power which is conveyed to power conversion stations (PCSs) to be converted to alternating current (AC) power and stepped up to collection voltage of 34.5 kV. The project would include a total of 83 PCSs with power rating of 3.75 MW each.

The Project would include an electrical substation, a battery storage facility, and an Operations and Maintenance (O&M) facility, all of which would be located together within an approximately 15-



LIVE OAK ASSOCIATES, INC.

Daylight Solar BE

Site / Vicinity Map

Date	Project #	Figure #
11/14/2023	2799-01	1

acre area in the northeastern portion of the project site. The on-site substation would step up the generated power from 34.5-kV collection voltage to 230-kV for transfer to the gen-tie line described below.

The on-site battery storage facility would include 300 battery containers which would be used to optimize power delivery to the grid by storing excess generation during low demand periods, and supplying power to the grid when demand is high. The energy storage systems are planned to consist of lithium-ion batteries housed in pre-fabricated metal structures. Each battery storage unit would have a storage capacity of approximately 4 MW hours, so the project battery storage facility would provide a total energy storage capacity of up to 1,200 MW hours.

Gen-Tie Line

The solar generation from the Daylight Legacy Solar Facility would be transferred from the project to a new 230-kV gen-tie line extending from the project substation northward 2.5 miles to the existing PG&E Mustang Switching Station. The gen-tie line would occupy a 175- to 250-foot-wide corridor extending northward from the planned on-site substation for 0.5 mile to the north project boundary, then crossing over Avenal Cutoff Road and extending a further 2.0 miles within an exclusive easement along the unimproved 26th Avenue alignment to the existing PG&E Mustang Switching Station. The gen-tie line would consist of a three-phase electrical circuit with conductors strung on a series of tubular steel poles (TSPs or monopoles) ranging in height from 100 to 150 feet. It is estimated that the gen-tie line would include up to 20 monopoles.

An alternative gen-tie route, extending from the south project boundary southward for one mile to Nevada Avenue is also under consideration. The gen-tie alignment would pass through the approved Cherry Solar Project site, and the approved site plan for that project includes a 250-foot-wide gen-tie corridor which was reserved for the alternative gen-tie line from the subject Daylight Legacy Solar Project site. The biological field survey conducted by LOA for the Cherry Solar Project in the spring of 2022 included the alternative gen-tie corridor within the Cherry Solar Project site.

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 Daylight Legacy 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 2023), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023), 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 July 26, 2023, by LOA ecologist Cristal Romero. During this site visit, 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, however a Swainson's hawk nest survey was conducted for the larger Westlands Solar Park study area on April 27 and May 3 and 4, 2012 which included the Project Site within the larger Wetlands Solar Park study area, and a 10-mile buffer of the Westlands Solar Park study area, with nest sites being revisited in 2017, 2018, and 2019 (Appendix A).

The potential biological impacts associated with this solar development construction were previously addressed in the Westlands Solar Park Master Plan and Gen-Tie Corridors Program EIR, which was certified by the Westlands Water District (WWD) Board of Directors on January 16, 2018. The Program EIR (PEIR) provides plan-level environmental review for the Daylight Legacy Solar project. As such, this biological report constitutes a second-tier environmental document under CEQA. As provided in the CEQA Guidelines, the previous biological report and analysis prepared for the PEIR are hereby incorporated by reference into this project-specific biological report on the Daylight Legacy Solar project and associated gen-tie line. The PEIR can be accessed with the following web link: https://wwd.ca.gov/news-and-reports/environmental-docs/

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 is located approximately 4 miles east of the Project Site. The Kings River historically drained into the Tulare Lake Basin which contained the vast Tulare Lake, which encompassed a large area of Kings County and at times extended to the eastern edge of the WSP Master Plan area. 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. Thus, the native habitat that does remains in the region is particularly valuable to native wildlife species including special status species that still 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 10 miles to the southwest and the Kings River drainage approximately 4 miles to the east of the Project Site.

2.2 PROJECT SITE

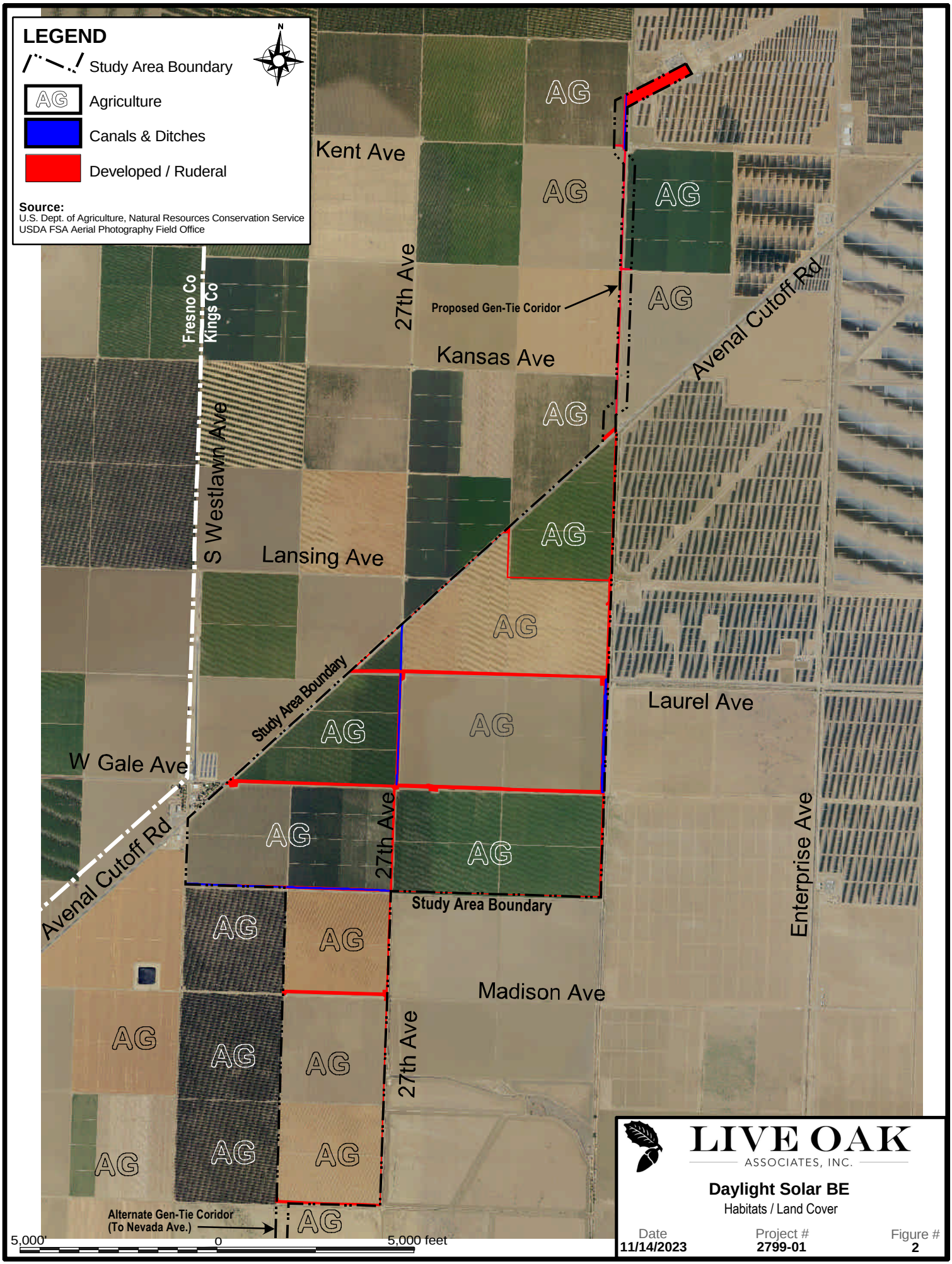
The Daylight Legacy Solar Project site is located in central-west Kings County in the Westhaven U.S. Geological Survey (USGS) quadrangle. It is approximately 2,106.9 acres and is bounded by Avenal Cutoff Road to the northwest, 26th Avenue and solar farm to the east, and Manteca Avenue to the south. An approximately 2-mile-long gen-tie route is also proposed north of Avenal Cutoff Road along the 26th Avenue alignment, with tie-in at the existing PG&E Mustang Switching Station (Figure 1).

The project site is nearly level with elevations ranging from 254 feet above mean sea level (amsl) to 265 feet. There are several agricultural canals and irrigation ditches running through and along the site. There are no buildings, sheds, or other structures on the Daylight Legacy Solar project site.

Three soil types occur onsite: 1) Lethent clay loam, 2) Calflax clay loam, saline-sodic, 0-2% slopes, MLRA (Major Land Resource Area) 17, and 3) Twisselman silty clay, saline-alkali were identified on the Daylight Legacy Solar site (NRCS Web Soil Survey 2023). All soil types are 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, hydric vegetation was not observed on the site except for within canals, which the project will avoid.

2.3 BIOTIC HABITATS/LAND USES

The entire Daylight Legacy Solar Project Site consists of agricultural lands with canals/ditches as well as developed roads running through and along the site (Figure 2).


LEGEND
Study Area Boundary
AG
Agriculture
Canals & Ditches
Developed / Ruderal
N
Source:
U.S. Dept. of Agriculture, Natural Resources Conservation Service
USDA FSA Aerial Photography Field Office
Kent Ave
27th Ave
Proposed Gen-Tie Coridor
Kansas Ave
Avenal Cutoff Rd
Fresno Co
Kings Co
S Westlawn Ave
Lansing Ave
Study Area Boundary
Laurel Ave
W Gale Ave
Avenal Cutoff Rd
27th Ave
Study Area Boundary
Enterprise Ave
Madison Ave
27th Ave
Alternate Gen-Tie Coridor
(To Nevada Ave.)
5,000'
0
5,000 feet
LIVE OAK
ASSOCIATES, INC.
Daylight Solar BE
Habitats / Land Cover
Date
11/14/2023
Project #
2799-01
Figure #
2

2.3.1 Agricultural Fields

The majority of the site consists of fields which are disked, fallow, or planted with row crops. At the time of survey, row crop vegetation included tomatoes, cotton, and onions. Non-agricultural vegetation in the agricultural fields is sparse and dominated by weedy non-native species.

Regular agricultural activities on the site create only slightly suitable to moderately suitable habitat for most animal species. Animal species observed during the 2023 survey include the turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), European starling (*Sturnus vulgaris*), as well as a sparrow species; California ground squirrel (*Otospermophilus beecheyi*) burrows were also observed.

Reptile species that may forage in this habitat include lizards such as the side-blotched lizard (*Uta stansburiana*) and western whiptail (*Cnemidophorus tigris*), and snakes such as the gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*).

Resident bird species expected to use this habitat would include Brewer's blackbirds (*Euphagus cyanocephalus*), brown-headed cowbirds (*Molothrus ater*), and European starlings (*Sturnus vulgaris*), among others. Wintering birds that may utilize the disked fallow field would be the savannah sparrow (*Passerella sandwichensis*), American pipit (*Anthus rubescens*), and Say's phoebe (*Sayornis saya*), among others. Summer migrants such as the barn swallow (*Hirundo rustica*) may forage on the site.

Burrowing rodent activity in the fields is expected to be minimal due to the ground disturbance regime. Botta's pocket gopher (*Thomomys bottae*) burrows may occur within the site, and California ground squirrel (*Otospermophilus beecheyi*) burrows were observed along the agricultural field perimeters.

The site offers limited foraging opportunities for mammalian and avian predators. Raptors such as red-tailed hawks (*Buteo jamaicensis*), Swainson's hawks (*Buteo swainsoni*), great horned owls (*Bubo virginianus*), burrowing owls, and barn owls (*Tyto alba*) may occasionally forage on the site, and burrowing owls are known to breed adjacent to the larger managed canals in the surrounding local vicinity. Disturbance-tolerant mammalian predators such as raccoons (*Procyon lotor*), striped

skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), and red foxes (*Vulpes vulpes*) may occasionally forage on or pass through the site.

2.3.2 Agricultural Canals and Ditches

Agricultural canals occur along 26th Avenue and 27th Avenue. Ditches extend east-west across the site, which are narrower and shallower than the canals but are still prominent on the landscape and have clearly defined channels. All of the canals and ditches on and adjacent to the project site are no longer used to convey irrigation or drainage water since the transition to drip irrigation over the past 20 years. The canal segment running along 26th Avenue between Laurel Avenue and Lincoln Avenue is used to store pumped groundwater for use by tanker trucks for dust suppression during the ongoing construction of the Solar Blue and Castanea (Chestnut) Solar projects to the east of the project site. The other canals and ditches on and adjacent to the project site are dry.

The canals could provide suitable habitat for burrowing owls (*Athene cunicularia)* in the local vicinity. To the extent that the canals and ditches on the site may contain water, pacific chorus frogs (*Pseudacris regilla*) and western toads (*Bufo boreas*) may use them for breeding and may also disperse through the adjacent fields during the winter and spring or when the fields are not regularly disked.

2.3.3 Developed

There are several roads, both improved and unimproved (i.e., dirt) roads that border the site as well as intersect it. These will be utilized during the development of site to access the project footprint.

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. Regional movement is also 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 more for movement when compared to the adjacent, intensely farmed lands. While these 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 do, 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 agricultural fields adjacent to canal habitat. Canals and ditches within 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). The nearest significant riparian corridor that likely facilitates regional movement of wildlife is the Kings River to the east of the site. This riparian area is located a little over 4 miles to the east of the Project Site at its nearest point.

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”.

A number of special status plants and animals could occur in the vicinity of the Project Site. These species, and their potential to occur in the Project Site, are listed in Table 1 in the following pages. Sources of information for this table includes *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 2023), *Endangered and Threatened Wildlife and Plants* (USFWS 2023), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2023), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023). 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 (CNDDB) is a volunteer database.

A search of published accounts for all of the relevant special status plant and animal species was conducted for the Westhaven USGS 7.5-minute quadrangles within which the Project Site is located, and for the 8 surrounding quadrangles (Calflax, Vanguard, Lemoore, Huron, La Cima, Kettleman City, Stratford SE, Hanford) using the California Natural Diversity Data Base Rarefind 5 (2023).

TABLE 1: LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE DAYLIGHT LEGACY SOLAR PROJECT SITE

PLANTS (adapted from CDFW 2023 and CNPS 2023)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Project Site
California jewelflower *Caulanthus californicus*	FE, CE, CRPR 1B.1	Habitat: Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland. Elevation: 61-1000 meters. Blooms: February–May.	Absent. Suitable habitat for this species is absent from the Project Site. Any suitable habitat that may have once been present has been highly modified for human use.
Kern mallow *Eremalche parry ssp.kernensis*	FE, CRPR 1B.2	Habitat: On dry, open sandy to clay soils; often at edge of balds in Chenopod scrub, Pinyon and juniper woodland, Valley and foothill grassland. Elevation: 70 – 1290 meters. Blooms: January - May.	Absent. Suitable habitat for this species is absent from the Project Site. Any suitable habitat that may have once been present has been highly modified for human use.
San Joaquin woolythreads *Monolopia congdonii*	FE, CRPR 1B.2	Habitat: Chenopod scrub, valley and foothill grassland. Elevation: 60-800 meters. Blooms: February-May.	Absent. Suitable habitat for this species is absent from the Project Site. Any suitable habitat that may have once been present has been highly modified for human use.

ANIMALS (adapted from CDFW 2023 and USFWS 2023)

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 *Branchinecta lynchi*	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 *Desmocerus californicus dimorphus*	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.
Delta smelt *Hypomesus transpacificus*	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.** This fish species occurs only in the waters of the San Francisco Bay-Delta Estuary with the USFWS 2004 5-Year Review identifying Mossdale, California as the furthest upstream (southwards) historical limit of their range within the San Joaquin River watershed. Since the project site is located 140 miles south of the Delta and more than 130 miles from Mossdale, this species will not occur on the project site or vicinity. Additionally, the project would not impact any waterways.
California tiger salamander *Ambystoma californiense*	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.
California red-legged frog *Rana draytonii*	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds	**Absent**. In the San Joaquin Valley, suitable habitat for this species occurs along the east side of the valley as far south as Fresno County, and the Recovery Plan does not include the

Species	Status	Habitat	*Occurrence in the Project Site
		are preferred, and a salinity of no more than 4.5%	area of the site within Kings County as being within this species' current range (post 1985). Therefore, this species will not occur on the project site or vicinity.
Giant garter snake *Thamnophis gigas*	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**. Although the project site lies within the historic range of the giant garter snake, this species is no longer known to occur south of the San Joaquin River in Fresno County, approximately 45 miles north of the project site. Therefore, this species will not occur on the project site or vicinity.
Blunt-nosed leopard lizard *Gambelia silus*	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 project site and vicinity and there are no reported sightings of this species within 15 miles of the project site. Therefore, this species is absent from the site and vicinity of the site.
Swainson's hawk *Buteo swainsoni*	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Present**. Foraging habitat for this species is available throughout the project area. Potential breeding habitat in the form of potential nest trees is present off-site and adjacent to the site on the corner of Avenal Cutoff Road and W. Gale Avenue. Swainson's hawks were observed flying during site visits for the WSP Master Plan site during the April 10 and May 28, 2018, and April 11, 2019 site visits; they are known to occur over and adjacent to the site, per previous surveys conducted by LOA as well.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	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 *Charadrius alexandrines nivosus*	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**. Foraging habitat is available along agricultural canals within the Project Site. The closest recorded observation of this species is more than three miles from the project site (CDFW 2023).
Tricolored Blackbird *Agelaius tricolor*	CC, CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible**. Foraging habitat for this species is present within the Project Site in the form of cattails in the canals of the site and within the vicinity of the site, however presence of breeding habitat on the site itself would depend on the type of crop planted from

Species	Status	Habitat	*Occurrence in the Project Site
			season to season. Tricolored blackbirds are known to nest in wheat fields.
Buena Vista Lake ornate shrew *Sorex ornatus relictus*	FE	Occurs in marshes on the edges of Lake Buena Vista, Kern County, may occur, but currently presumed absent from Tulare Basin.	**Absent**. The only water near the site is contained in some canals. Suitable habitat, including riparian or wetland habitats are absent from the site. Prey species for the BVLS are likely to be few on the site as well. Since none of the habitat elements required for the Buena Vista Lake ornate shrew are present on the site and it is not within the Kern Lake Preserve Unit, it is concluded that there is no potential for this species to occur on this site.
Nelson's antelope squirrel *Ammospermophilus nelsoni*	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.
Giant kangaroo rat *Dipodomys ingens*	FE, CE	Inhabits grasslands on gentle slopes generally less than 10°, with friable, sandy-loam soils.	**Absent**. Habitats required by this species are absent from the Project Site and surrounding agricultural lands due to intensive agricultural use. Additionally, in California this species' range is confined to the western edge of the San Joaquin Valley and the foothills along the western edge of the San Joaquin Valley. Since this species is not present in agricultural areas of the central San Joaquin Valley, which does not support suitable habitat for this species, it is absent from the project site and vicinity.
Fresno kangaroo rat *Dipodomys nitratoides exilis*	FE, CE	Inhabits grassland on gentle slopes generally less than 10°, with friable, sandy-loam soils.	**Absent.** Habitats required by this species are absent from the Project Site and surrounding agricultural lands due to intensive agricultural use.
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	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 this species and the current distribution is more than 25 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 at the northernmost edge of this species'

Species	Status	Habitat	*Occurrence in the Project Site
			range. There are no reported sightings of this species west of the Kings River which is more than 4 miles east of the project site and forms a barrier to westward movement toward the project site. Therefore, this species is absent from the project site and vicinity.
San Joaquin kit fox *Vulpes macrotis mutica*	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	**Unlikely.** Some burrows observed in the surrounding area were of suitable size for the kit fox. However, nearly all these burrows were within the vicinity of California ground squirrels or actively used by ground squirrels. The Project Site and the surrounding area 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, or in the surrounding area, but there have been numerous documented sightings within a ten-mile radius of the Project Site, between 1975 and 2002 (CDFW 2023). Therefore, kit foxes are unlikely to breed within the Project Site but may occasionally forage within the Project Site and may use the Project Site for dispersal movements.

State Species of Special Concern or Fully Protected Species

Species	Status	Habitat	*Occurrence in the Project Site
Western spadefoot *Scaphiopus hammondii*	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 this species requires for breeding are absent from the Project Site. Terrestrial habitat required for estivation is absent from cultivated fields.
Western pond turtle *Actinemys marmorata*	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes.	**Unlikely.** Only marginal habitat, in the form of the canals, exists within the Project Site.
Temblor Legless Lizard *Anniella alexanderae*	CSC	The Temblor legless lizard (previously called silvery legless lizard) occurs mostly underground in warm moist areas with loose soil and substrate and is known only from two sites west of Highway 33 at the base of the Temblor Range between McKittrick and Taft in Kern County.	**Absent.** The Project Site is outside of this species' range.
Coast horned lizard *Phrynosoma blainvillii*	CSC	Grasslands, scrublands, oak woodlands, etc. of central California. Common in sandy washes with scattered shrubs.	**Absent.** Habitats required by this species are absent because they have been heavily modified for human use.
California glossy snake *Arizona elegans occidentallis*	CSC	Occurs in arid areas with grassland, scrub, chaparral, and rocky washes. This species is	**Absent.** Habitats required by this species are absent from the Project Site and vicinity.

Species	Status	Habitat	*Occurrence in the Project Site
		nocturnal and spends the day in burrows.	
San Joaquin whipsnake *Masticophis flagellum ruddocki*	CSC	Open, dry habitats with little or no tree cover. Found in valley grasslands and saltbush scrub in the San Joaquin Valley.	**Absent.** Habitats required by this species are absent from the Project Site and vicinity.
American white pelican *Pelecanus erythrorhynchos*	CSC	Nests on islands in large lakes or on ephemeral islands in shallower wetlands.	**Unlikely.** Nesting habitat is absent from the Project Site. This species has observed flying in the general area in previous years; however, the species is unlikely to stop and nest within the Project Site.
White-faced ibis *Plegadis chihi*	CSC	Salt and freshwater marsh as well as grain and alfalfa fields.	**Possible.** Foraging habitat required for this species is present in the form of the agricultural fields within the Project Site. Breeding habitat is absent.
Northern harrier *Circus cyaneus*	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**Possible.** Northern harriers were observed foraging over agricultural fields within the general area during previous surveys for the WSP area, and foraging and breeding habitat exists on the Project Site.
White-tailed kite *Elanus leucurus*	CP	Open grasslands and agricultural areas throughout central California.	**Possible.** Suitable foraging and breeding habitat occurs for this species within the Project Site.

State Species of Special Concern

Species	Status	Habitat	*Occurrence in the Project Site
Mountain plover *Charadrius montanus*	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 *Athene cunicularia*	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.	**Likely.** Past site visits in the local vicinity and WSP Master Plan identified breeding burrowing owls along canals and identified a large amount of overwintering burrowing owls on adjacent lands in the vicinity of the project site. Currently, suitable habitat onsite consists mainly of ground squirrel burrows along canals and the margins of agricultural fields. As burrowing owls are known to occur in the area, it is possible they may occur on the project site, particularly along canals and margins of the agricultural fields.
Long-eared owl (nesting) *Asio otus*	CSC	Occur on edge habitats including in clumps of trees or edges of open forests that are adjacent to grasslands, shrublands, wetlands, marshes, and farmlands. Need stick nests built by other birds in trees.	**Possible.** The Project Site does not support suitable nesting habitat for this species except for utility poles (unlikely); therefore, long-eared owls may use the Project Site for breeding or foraging.

Species	Status	Habitat	*Occurrence in the Project Site
Black swift *Cypseloides niger*	CSC	Migrants found in many habitats of state; in Sierra nests are often associated with waterfalls.	**Absent.** The Project Site does not provide suitable breeding or foraging habitat for this species.
Vaux's swift *Chaetura vauxi*	CSC	Migrants move through the foothills of the western Sierra in spring and late summer. Some individuals breed in the region.	**Absent.** The Project Site does not provide suitable breeding or foraging habitat for this species.
Loggerhead shrike *Lanius ludovicianus*	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Likely.** This species has been observed on adjacent lands during surveys for the WSP Master Plan. The Daylight Legacy Solar site may support marginal nesting habitat within vegetated canals.
Yellow-headed blackbird *Xanthocephalus*	CSC	Occurs in freshwater marshes with cattails, tule, and bulrush during the summer and open, cultivated fields and pastures in the winter.	**Possible.** The canals onsite support potential breeding and foraging habitat for this species.
Tulare grasshopper mouse *Onychomys torridus*	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.
Short-nosed kangaroo rat *Dipodomys nitratoids brevinasus*	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.** Habitats required by short-nosed kangaroo rats are absent from the study area and surrounding agricultural lands due to intensive agricultural use.
Townsend's Big-eared bat *Corynorhinus townsendii*	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 *Antrozous pallidus*	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.** Although suitable roosting habitat for the pallid bat is absent from the Project Site, the entire site supports suitable foraging habitat for this species.
California mastiff bat *Eumops perotis ssp. californicus*	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.** Although suitable roosting habitat for the California mastiff bat is absent from the Project Site, the entire site supports suitable foraging habitat for this species.
American badger *Taxidea taxus*	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	**Unlikely.** No burrows of the size and shape suitable for this species were observed on the Project Site. It is possible this species may establish burrows within the project site; however, it is unlikely that badgers would breed onsite or within the site's vicinity.

Species	Status	Habitat	*Occurrence in the Project Site
Ringtail *Bassariscus astutus*	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 ENDANGERED, THREATENED, OR SPECIAL STATUS ANIMAL SPECIES MERITING FURTHER DISCUSSION

2.6.1 Swainson's Hawk (*Buteo swainsoni*)

Federal Listing Status: None; State Listing Status: Threatened

The Swainson's hawk is designated as a California Threatened species. The loss of agricultural lands (i.e., foraging habitat) to urban development and additional threats such as riverbank protection projects have contributed to its decline.

Life history and ecology. Swainson's hawks are large, broad-winged, broad-tailed hawks. Male and female Swainson's hawks have similar body types, with a length generally between 17 and 22 inches and a wingspan between 47 and 57 inches. They weigh up to 2.5 pounds.

Swainson's hawks have a high degree of mate and territorial fidelity. They arrive at their nesting sites in March or April, and their nests, measuring three to four feet in diameter, can take up to two weeks to complete. The nest is likely to be a stick nest constructed in a tree. In the Central Valley, Swainson's hawks typically nest in large trees in or peripherally to riparian systems adjacent to suitable foraging habitats. The female will lay and incubate two to four eggs for approximately 28 to 35 days. The male helps with incubation when the female leaves the nest to feed. The young hatch sometime between March and July and do not leave the nest until some 4 to 6 weeks later. Other suitable nest sites include lone trees, groves of trees such as oaks, other trees in agricultural fields, and mature roadside trees. 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.

Swainson's hawk survey history on the project site and the adjacent lands: On June 21, 2010, LOA biologists Jeff Gurule and Geoff Cline observed a pair of Swainson's hawks soaring above and around a tailwater basin located 0.7 miles east of the project site. (Note: Due to the transition of irrigation practices to drip irrigation, the irrigation return flows which previously had been captured in the tailwater basin gradually ceased, resulting in the desiccation of basin such that it has been completely dry for several years.) The two hawks vocalized an alarm call when first encountered flying low over the basin and then soared high into the air. The hawks were encountered again within 30 minutes flying low over the tailwater basin. Although approximately 30 minutes was

spent in a thorough search for a nest, no Swainson's hawk nest was observed in the trees associated with the off-site tailwater basin. An active barn owl nest was found, however. The behavior of the Swainson's hawks observed indicated that a nest may occur in the trees associated with the tailwater basin in the future.

In 2011, surveys for Swainson's hawks were made on March 21 and April 5 by LOA ecologists Katrina Krakow and Nathan Hale, April 12 and 13 by Katrina Krakow, April 19 and 20 by Katrina Krakow and biologist Robert Shields, and May 3, and 17 by Katrina Krakow. The majority of surveys focused on the tailwater basin which has a row of riparian trees along its margins. Shorter surveys were made near the King's River along Jackson Road, northeast of the Project Site, where Swainson's hawks have been observed in previous years. A pair of Swainson's hawks were observed off of Jackson Road near the Kings River on 21 March, and 5, 12, and 13 April 2011. Only one individual was observed at a time (both individuals were observed separately) starting on April 19th, which may indicate the beginning of nesting, although no nest was located. On 3 May 2011, a Swainson's hawk was observed over the housing of the Lemoore Naval Air Station along Highway 198, approximately 3.5 miles north of the Project Site. A pair of Swainson's hawks were observed over the tailwater basin beginning on April 19, 2011, by LOA ecologist Katrina Krakow and biologist Robert Shields, and only one individual was observed at a time (both individuals were observed separately) starting on May 3 by LOA ecologist Katrina Krakow, which may indicate the beginning of nesting for this pair. These individuals were observed interacting with a pair of red-tailed hawks, which were also observed only singularly near the pond. Two great horned owl nests were observed in trees along the south side of the basin, on April 19, one owlet was observed in one nest and two owlets were observed in the other nest. However, as at least two pair of Swainson's hawks were observed either over or in the vicinity of the project site and WSP study area, both observed pairs of this species most likely forage onsite, although, due to lack of suitable nest trees, they are not expected to nest onsite, however, potentially suitable nesting habitat occurs at a clump of landscape trees on the Shannon Ranch complex at the intersection of Avenal-Cutoff Road and W. Gale Avenue at the southwestern corner of the main body of the Daylight Legacy Solar Project Site.

Further multi-year surveys of the tailwater basin area were conducted by LOA biologists during subsequent breeding seasons 2012-2015. Although Swainson's hawks were reliably observed flying over the tailwater basin in each of these years, these surveys likewise failed to detect the presence of a Swainson's hawk nest within the trees surrounding the tailwater basin. The April 15, 2015, survey was the only survey that LOA biologists observed Swainson's hawks land in a tree at the tailwater basin. All other observations were of Swainson's hawks flying overhead.

In the spring of 2012, LOA conducted a Swainson's hawk nest survey of the Westlands Solar Park (WSP) in conjunction with the biological report prepared for the WSP Master Plan and Gen-Tie Corridors Program EIR, which is adjacent to the project site. The study area included the Project Site as well as accessible lands within a buffer of 10 miles from the WSP Master Plan area. These surveys took place on April 27 by Ms. Krakow and Ms. Jensen; May 3 by Ms. Krakow; and May 4 by Ms. Krakow and Mr. Cline. Accessible lands within the 10-mile radius were surveyed completely except for those lands previously surveyed by ESTEP Ecological Consulting (2011 and 2012). Four active Swainson's nests were observed, all occurring off-site. Active nests were revisited on May 24 by Ms. Krakow and Mr. Cline. Two nests were located to the northwest of the site in trees bordering Los Gatos Creek located northwest of the Town of Huron approximately 10 miles northwest of the project site, one nest was located 10 miles southeast of the site near Racine Avenue just east of Kettleman City in a stand of eucalyptus trees, and one nest was located 7 miles south in a cottonwood tree located south of the southern limit of the WSP Master Plan area on the eastern side of the canal adjacent to the WSP Master Plan area near Quail Avenue. During the 2013-2015 spring surveys, this nest was observed to be in active use by a pair of breeding Swainson's hawks. This pair likely uses the WSP study area for foraging. , Nesting on the Daylight Legacy Solar site is unlikely due to the absence of suitable nest trees on the site. Nesting at the tailwater basin to the east is unlikely due to the current condition of the trees adjacent to the tailwater basin; through the past several years of drought, most of these trees have died and many have fallen down.

The four nests observed by LOA in 2012 were revisited on September 25, 2017, and April 9 and 10, 2018 (including a visit to nest #11 of the Estep report from 2017 on April 9, 10, and May 28, 2018). By September of 2017, nesting activity for the 2017 nesting season could not be confirmed,

however, one nest was missing and presumed inactive for 2017. The 2018 nesting season appeared to be late, with surveys in April showing adults near known nesting areas, but not yet engaging in nesting activity. Active migration was observed on April 9, 2018, when over 100 Swainson's hawks were observed just off-site south of Nevada Avenue. On May 28, 2018, when the previously identified nest locations were revisited, only one of the previously identified nest locations (one of which was previously missing) surveyed was an active nest, near Racine Avenue east of Kettleman City. These nest locations were checked again on May 29, 2019, where two nests were determined to be active in 2019, the one near Quail Avenue and the one near Racine Avenue. The western nest tree along Los Gatos Creek near Huron did not have a nest in the tree and the eastern nest tree had been removed as a part of a presumed creek flood protection project. Nest #11 from Estep's survey supported nesting ravens in 2019.

Potential to occur within the Project Site. Swainson's hawks are known to forage in areas surrounding the Project Site. Groupings of trees and trees along the nearby Kings River provide suitable nesting and perching habitat, and the fallow and agricultural lands within the Project Site provide suitable foraging habitat.

Although no known historic nests are along or within a half-mile of the project site, there are marginally suitable nest trees that exist on developed land immediately west of the project site at the intersection of Avenal Cutoff Road and W. Gale Avenue. If individuals were to nest in these trees, they would likely be sufficiently tolerant of human activity that the development of nearby lands would not be a significant source of additional stress. Marginally suitable trees also exist in a nearby tailwater basin east of the site. However, this basin is located approximately 0.7 mile east of the project site (the typical setback distance for active nest sites is a half-mile).

For a detailed cumulative analysis of impacts to Swainson's hawks, see Appendix A of this report.

2.6.2 Burrowing Owl (*Athene cunicularia*)

Federal Listing Status: None; State Listing Status: Species of Special Concern

The burrowing owl is designated as a California Species of Special Concern. 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.

Life history and ecology. The burrowing owl is a small, long-legged bird that averages a height of 9.5 inches, has an average wingspan of 23 inches, and weighs an average of 5.25 ounces. 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 and coyotes) found in grasslands, open shrub lands, deserts, and, to a lesser extent, grazed and agricultural lands. Burrowing owls in this region are typically found at elevations below 250 ft. and exhibit strong site fidelity. Pairs have been known to return to the same area year after year, and some pairs are known to utilize the same burrow as the previous year. Burrowing owls are colonially nesting raptors, and colony size is indicative of habitat quality. It is not uncommon to find burrowing owls in developed and cultivated areas where California ground squirrels are active.

Burrowing owls feed on various small mammals including deer mice, voles, and rats. They also prey on various invertebrates including crickets, beetles, grasshoppers, spiders, centipedes, scorpions, and crayfish. Peak hunting periods occur around dusk and dawn.

Burrowing Owl history on the Project Site and the WSP study area: Burrowing owls, both breeding and overwintering, have been observed utilizing existing burrows and pipes along canals and on the edges of agricultural fields in the vicinity of the project site. Although no burrowing owls were observed within the project site during the most recent site visit on July 26, 2023, the Site provides suitable habitat for this species in the form of California ground squirrel burrows which were mostly observed along canals and the margins of agricultural fields within the project site, as the majority of the fields were disked or planted at the time of the survey. Field surveys did not consist of 100% coverage surveys and were conducted mainly as driving surveys on public roads, farm roads, and canal levees with short walking surveys when animals or plants of particular biological significance were observed. As 100% coverage surveys were not conducted, the precise extent of burrowing owls within the Project Site and adjacent lands is unknown, however, given the prevalence of burrowing owls in the WSP Master Plan area, including 23 observations of owls or active burrows within ½ mile of the site (2014, 2018, 2021, and 2022) with seven of these occurrences just outside the eastern boundary of the project site and four of these occurrences are within 500 feet of the

site, burrowing owls are likely to use the site in some form, and may be adversely affected from project-related loss of burrow and foraging habitat (see Appendix B of this report for details).

Potential to occur within the Project Site. Past site visits in the local vicinity and WSP Master Plan identified breeding burrowing owls along canals and identified a large amount of overwintering burrowing owls on adjacent lands in the vicinity of the project site. Currently, suitable habitat onsite consists mainly of ground squirrel burrows along canals and the margins of agricultural fields within the project site. As burrowing owls are known to occur in the area, it is possible they may occur on the project site, particularly along canals and margins of the agricultural fields.

2.6.3 San Joaquin Kit Fox (*Vulpes macrotus mutica*)

Federal Listing Status: Endangered; State Listing Status: Threatened

By the time the U.S. Fish and Wildlife Service listed it as an endangered species under the authority of the Federal Endangered Species Act on 11 March 1967, the San Joaquin kit fox had been extirpated from much of its historic range. In 1998, the USFWS adopted a final recovery plan for the San Joaquin kit fox. On 27 June 1971, the State of California listed the kit fox as a threatened species.

Life history and ecology. The San Joaquin kit fox, the smallest North American member of the dog family (Canidae), historically occupied the dry plains of the San Joaquin Valley, from San Joaquin County to southern Kern County (Grinnell et al. 1937). Critical habitat has yet to be established for the San Joaquin kit fox. Local surveys, research projects, and incidental sightings indicate that kit foxes currently occupy available habitat on the San Joaquin Valley floor and in the surrounding foothills.

Kit foxes prefer habitats of open or low vegetation with loose soils. In the northern portion of their range, they occupy grazed grasslands and, to a lesser extent, valley oak woodlands. 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 (USFWS 1998). Kit foxes may also be found in grazed grasslands, urban settings, and in areas adjacent to tilled or fallow fields (USFWS 1998).

Kit fox diets vary geographically, seasonally, and annually. In the central portion of their range, which includes lands around the Project Site, known prey includes white-footed mice, insects, California ground squirrels, black-tailed hares, San Joaquin antelope squirrels, kangaroo rats, desert cottontails, and ground-nesting birds (Archon 1992; Jensen 1972).

The kit fox requires underground dens to raise pups, regulate body temperature, and avoid predators and other adverse environmental conditions (Golightly and Ohmart 1984). In the central portion of their range, they usually occupy burrows excavated by small mammals, such as ground squirrels. Denning habitat consists of ground squirrel complexes in which some burrows have been enlarged to 4 to 6 inches in diameter for the length of a human arm (approximately 2 ft.).

Potential to occur within the Project Site. Though there is some undeveloped rangeland further out to the south and southwest in the Kettleman Hills, the lands surrounding the Project Site overwhelmingly consist of cultivated and fallow agricultural fields and the Project Site itself has been heavily managed for agricultural uses for decades. Agricultural lands are not generally suitable for the San Joaquin kit fox, as this habitat/landcover type provides a limited prey base (especially in the cultivated fields) and, therefore, constitutes poor foraging habitat. No kit fox, or their sign, were observed during any of the site visits to the Project Site or site visits related to the WSP Master Plan by LOA ecologists between 2011 and 2023.

Of primary interest for this assessment are kit fox records from the vicinity of the project site. According to the CNDDB there have been a total of 19 historical (1975-2002) sightings within ten miles of the site (CDFW 2023). The closest record is from 1981 and is over five miles to the west of the site along the California Aqueduct; the most recent observation was over 20 years ago, approximately 10 miles to the south of the site and consisted of two dead individuals on the road. Based on the site's location and the distribution of kit fox occurrences in its vicinity, the site may only occasionally be used for regional movements of individual kit fox. Multiple large irrigation canals and drainage ditches run through the Project Site and vicinity which may act as movement corridors; however, should a kit fox utilize these corridors, the fox would have to travel through miles of marginal to poor habitat before reaching the Project Site, which itself holds little habitat value.

In summary, the Project Site offers marginal habitat primarily in the form of fallowed fields and the surrounding lands provide similar habitat. 19 historical kit fox sightings occur within ten miles of the Project Site, but not within the Project Site itself. Considering the highly disturbed condition of the Project Site, its marginal to poor suitability as foraging or denning habitat, and its isolation from extant kit fox populations, it is highly unlikely any kit fox will take up residence within the Project Site, although an errant individual may move through the site from time to time.

Since the Project Site could be used on rare occasions for dispersing kit foxes, the Daylight Legacy Solar facility is planned to include the installation of wildlife friendly fencing. This fencing would allow kit fox to move unimpeded through the solar facility. All existing irrigation canals and drainage ditches, which could also act as movement corridors, will be avoided by the solar facilities. Therefore, any kit foxes would not be prevented from moving through the Project Site after completion of the solar facilities.

2.6.4 Other Migratory Birds and their Nests. Federal Listing Status: Protected; State Listing Status: Protected

Other migratory birds include most bird species with the exception of non-native birds such as the house sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*). 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.

Potential to occur onsite. Ground nesting birds such as burrowing owl (see Section 3.3.7) and killdeer (*Charadrius vociferous*), among other disturbance-tolerating birds, may utilize the ground and agricultural vegetation of the site for nesting.

2.7 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.

As of the date of this report, a formal aquatic resources delineation of the site has not been completed. However, the only hydrologic features identified on the site are agricultural canals and ditches.

Agricultural canals occur along 26th Avenue and 27th Avenue and agricultural ditches occur along the southern edge of the site and within the site's interior. Agricultural ditches are narrower and shallower than the canals and generally convey water within the site. The canals and ditches were constructed in and drain into uplands, and based on a review of available aerial imagery, they do not replace or relocate historical waters of the U.S., nor do they appear to convey water that would otherwise be considered waters of the U.S. Therefore, they are likely not to be considered waters of the U.S. Similarly, because they are manmade features constructed explicitly for agricultural purposes that do not replace a historical, natural watercourse, the canals and ditches are presumed not to be subject to Section 1602 of the California Fish and Game Code. However, if the canals and ditches on or adjacent to the site contain water, the RWQCB would likely consider these features to be waters of the State, which encompasses any surface or groundwater within the boundaries of the state. However, the Daylight Legacy Solar Project does not include plans to place fill in any of the canals and ditches on the project site, so no fill authorization would be required from RWQCB.

No other potentially jurisdictional waters are present on the site.

3 REGULATORY FRAMEWORK

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 2023 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

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 to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most 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.

3.2.3 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., sec. 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.

3.2.4 Jurisdictional Waters and Wetlands

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into "navigable waters" (33 U.S.C. §1344), defined in the CWA as "the waters of the United States, including the territorial seas" (33 U.S.C. §1362(7)). The CWA does not supply a definition for waters of the U.S., and that has been the subject of considerable debate since the CWA's passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Waters of the U.S. are presently defined by the EPA and USACE's joint 2023 Revised Definition of 'Waters of the U.S.' Rule (2023 WOTUS Rule), with certain interpretive modifications imposed by the U.S. Supreme Court's May 25, 2023 decision in the case of *Sackett v. Environmental Protection Agency*. These waters include:

- 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.
- The territorial seas.
- Interstate waters including interstate wetlands.
- Impoundments of waters otherwise defined as waters of the United States under the definition.
- Tributaries to other waters of the U.S. that are relatively permanent, standing or continuously flowing bodies of water.

- Wetlands adjacent to other waters of the U.S. that have a continuous surface connection to those waters.

The 2023 WOTUS Rule also defines a number of exclusions from the definition of waters of the U.S., many of which are longstanding exclusions from earlier regulatory regimes. These generally include:

- Waste treatment systems.
- Prior converted cropland.
- Ditches excavated wholly in and draining only dry land that do not carry a relatively permanent flow of water.
- Certain artificial features, e.g., irrigation basins, swimming pools, borrow pits, and artificially irrigated areas.
- Swales and erosional features characterized by low volume, infrequent, or short duration flow.

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. 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.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California ("waters of the State"). Nine RWQCBs oversee water quality at the local and regional level. 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. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining a Section 404 Clean Water Act permit. Discharges into waters of the State that are not also waters of the U.S. require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The RWQCB also administers the Construction Storm Water 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 Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a water of the U.S. may require a NPDES permit.

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. 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 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.

3.2.5 Local Policies or Habitat Conservation Plans

The Resource Conservation Element 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 the County.

3.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION

The Daylight Legacy Solar project involves the conversion of approximately 2,106.9 acres of agricultural fields to solar generation facilities and the following sections it is assumed that the entire project site will be affected by the project except for the agricultural canals and ditches.

Potentially significant project impacts to biological resources and mitigations are discussed below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impacts. Three special-status vascular plant species are known to occur in the vicinity of the Project Site: California jewelflower (*Caulanthus californicus*), Kern mallow (*Eremalche parry* ssp. *kernensis*), and San Joaquin woolly threads (*Monolopia congdonii*) (see Table 1). Due to the many decades of agricultural disturbance of the Project Site, habitat for these three plant species

are absent. Therefore, the proposed 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 41 special-status animal species potentially occurring in the region, 27 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, Delta smelt, California tiger salamander, California red-legged frog, western spadefoot, western pond turtle, Temblor legless lizard, coast horned lizard, blunt-nosed leopard lizard, giant garter snake, California glossy snake, San Joaquin whipsnake, American white pelican, black swift, Vaux's swift, western yellow-billed cuckoo, Buena Vista Lake ornate shrew, Nelson's antelope squirrel, giant kangaroo rat, Fresno kangaroo rat, Tipton kangaroo rat, short-nosed kangaroo rat, Tulare grasshopper mouse, American badger, San Joaquin kit fox, and ringtail. Construction of the Daylight Legacy Solar project would have no effect on loss of habitat for these species because there is little or no likelihood that they are present. However, there is a small potential for the project to impact individual errant American badgers or San Joaquin kit foxes, therefore, to be prudent, mitigation measures for impacts to individuals of these species are set forth below.

An additional 14 species may regularly or occasionally utilize the Project Site for foraging, including the western snowy plover, mountain plover, white-faced ibis, Swainson's hawk, northern harrier, white-tailed kite, burrowing owl, long-eared owl, loggerhead shrike, yellow-headed blackbird, tricolored blackbird, Townsend's big-eared bat, pallid bat, and California mastiff bat. However, 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. White-faced ibis may possibly forage in agricultural fields of the Project Site from time to time. 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, 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.

Although impacts to habitat for these species are not significant, impacts to individuals of these species would be potentially significant.

Mitigation. For species that are subject to potentially significant impacts to individuals due to construction of the Daylight Legacy 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).

In the highly unlikely event that any of the 27 special status animal species identified above as being absent or unlikely to occur within the Daylight Legacy Solar Project site occurs on the Project site prior to construction, the qualified wildlife biologists who would conduct the comprehensive pre-construction surveys identified above as part of the mitigation measures for other animal species which could potentially occur on the site prior to construction would also be qualified and prepared to identify any of these species, if observed in the field, as a matter of course. In the event that any such unexpected species are identified on the Project site, the biologists would take mitigative actions as appropriate per their professional judgement, and in accordance with guidelines established by the wildlife agencies, and in consultations with the applicable wildlife agencies, as appropriate.

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, prairie falcon, peregrine falcon, and red-tailed hawk are known to forage near the site. Additionally, the Project Site area could provide nesting habitat for a number of migratory bird species, including, but not limited to, the snowy plover, black-necked stilt, great-horned owl, common raven, loggerhead shrike, house finch, Brewer's blackbird, and tricolored blackbird. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The canal/ditch habitat, power poles, and barren ground on 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, as informed by a 2014 early consultation letter form CDFW for the WSP Master Plan project, prior to the construction of the Daylight Legacy Solar project:

***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 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.

***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, 500-foot buffer for unlisted raptors, and a half-mile for the Swainson's hawk. This buffer will be identified on the ground with flagging or fencing and will be maintained until the biologist has determined that the young have fledged. Variance from these setback distances may be allowed if a qualified biologist provides compelling biological or ecological reasons.

***Mitigation 3.3.3d* (*Tailgate Training*).** All construction and operations workers on each 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 to avoid birds entering/falling into the pipes and getting stuck.

***Mitigation 3.3.3e* (*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 Daylight Legacy Solar project site, the poles shall be capped immediately after installation to prevent entrapment of birds.

Implementation of the above measures would ensure that construction of the solar project would have no impact on nesting raptors and migratory birds and that the project would comply with state and federal laws protecting nesting birds.

3.3.4 Impacts to San Joaquin Kit Fox

Potential Impacts. The entire Project Site consists of agricultural habitat. Of primary interest for this assessment are kit fox records from the vicinity of the project site. According to the CNDDB there have been a total of 19 historical (1975-2002) sightings within the ten miles of the site (CDFW 2023). All of these sightings occurred more than five miles away. Based on the site's location and the distribution of kit fox occurrences in its vicinity, the Project Site may only rarely, if at all, be used for regional movements of individual errant kit fox. Irrigation canals run along the perimeter and through the Project Site which may act as movement corridors; however, should a kit fox utilize these corridors, the fox would have to travel through miles of marginal to poor habitat before reaching the Project Site, which itself holds little habitat value. As discussed in Section 2.6.3, a majority of the Project Site provide poor habitat and agricultural fields and canals offer marginal habitat for this species. While it is unlikely kit fox have, or would, take up residence within the Project Site under current site conditions, 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. To be prudent, the following measures shall be implemented:

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 and CDFW shall be contacted immediately to determine the best course of action.

a. ***Mitigation Measure 3.3.4b (Avoidance).*** Should San Joaquin kit fox or a potential den 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. If USFWS cannot be contacted, the following minimum distances must be adhered to:

   Potential den: 50 Feet
   Atypical den: 50 feet
   Known den: 100 feet
   Natal/pupping den (occupied and unoccupied): Service must be contacted.

   1. Additionally, placement of 4-5 flagged stakes 50 feet from the entrance of potential and atypical dens shall be placed to identify the den location and the exclusion zone must be observed.

Mitigation Measure 3.3.4c (Tailgate Training). All workers on the Daylight Legacy 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 Daylight Legacy 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 Daylight Legacy Solar project would result in mortality to individual kit foxes. Should kit fox be found within the solar project site, 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 nearby lands with similar habitats to those of the Project Site, the potential exists that the American badger may reside within the Project Site. No badgers or badger burrows were observed in the area during any of the surveys of the Project Site in 2021 or for the WSP Plan Area conducted from 2011 through 2023. However, the surveys were conducted primarily through driving field edges with limited foot coverage of the Project Site and 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 agricultural 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 Daylight Legacy 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. Swainson's hawks are known to nest in the general vicinity of the Project Site, with the nearest previously observed Swainson's hawk nests located a little more than five miles to the west of the Project Site along the California Aqueduct. While there are no suitable nesting trees on the project site itself, there are marginally suitable nesting trees at the Shannon Ranch complex located across Avenal Cutoff Road to the northwest of the project site. Should a Swainson's hawk nest be established close enough to the project site for construction activities to impact the nest, there is a chance construction within the vicinity of an active nest would adversely affect nesting success or result in mortality of individual birds. This would 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 are known to forage in the vicinity of the Project Site. As part of its biological assessment for the Program EIR on the Westlands Solar Park Master Plan and Gen-Tie Corridors Plan, conducted in 2017, LOA completed a comprehensive analysis of potential impacts to Swainson's hawk foraging habitat associated with development of the WSP Master Plan area and all other solar projects within a 10-mile radius of the WSP plan area. The analysis identified all known Swainson's hawk nests that were previously observed during surveys by LOA or others. In 2018 and 2019, LOA biologists conducted follow-up surveys to identify currently active nests. In July 2023, LOA biologists also reviewed and updated their detailed 2022 analysis of foraging habitat within a 10-mile radius of the WSP plan area and concluded that abundant habitat that would remain after development of the WSP, the Daylight Legacy Solar Project, and all other cumulative projects (including projects proposed since 2022) within this 10-mile radius, would be more than sufficient to support all of the known Swainson's hawk nests within this radius, with surplus capacity to support additional nesting pairs. (The full analysis is contained in Appendix A of this report.)

Therefore, it was concluded that full buildout of the Daylight Legacy Solar site along with all other known solar developments would not significantly impact Swainson's hawk foraging habitat. The conclusions of less-than-significant impact and less-than-significant cumulative impact to Swainson's hawk foraging habitat from the WSP PEIR apply equally to this analysis. Therefore, the

project-specific impacts and the cumulative impacts to Swainson's hawk foraging habitat resulting from construction of the Daylight Legacy Solar project would be less than significant.

Implementation of the following mitigation measures 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 Daylight Legacy Solar project site, preconstruction surveys shall be conducted within a half-mile of any potential nest trees located within a half-mile of the Project Site 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, a 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 Site 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 July 26, 2023, for the potential for the site to support burrowing owls. Although burrowing owls were not observed during this single-day site visit, past site visits in the local vicinity and for the WSP Master Plan identified breeding burrowing owls along

canals and identified a large amount of overwintering burrowing owls on adjacent lands in the vicinity of the project site. Currently, suitable habitat onsite consists mainly of ground squirrel burrows along canals and the margins of agricultural fields. As burrowing owls are known to occur in the area, it is possible they may occur on the project site, particularly along canals and margins of the agricultural fields.

The development of the Project Site could result in the loss of foraging and breeding habitat for burrowing owls. The highest quality habitat for burrowing owls onsite, canals, will be avoided, as the project will not be impacting the canals and ditches on the project site. . For any burrowing owls occurring elsewhere within the Project Site, both breeding and foraging habitat could be lost; however, there is abundant suitable breeding and foraging habitat on agricultural lands to the northwest, west, and southwest of the project site, which lands are not planned for solar or other development in the foreseeable future by either Kings County or Fresno County.

Ground disturbance from project 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 and the loss of a large area of known breeding and foraging habitat 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. Pre-construction surveys shall be repeated if construction halts for more than 14 days. 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 250 feet around each active burrow. 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.

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

3.3.8 Impacts to Wildlife Movement Corridors

Potential Impacts. It is likely that some species use the canal and ditches on and adjacent to the Project Site 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 canal and ditch system have greater value when placed in a regional context. Since the development of the Daylight Legacy Solar project would not affect existing canals and ditches, it is expected that wildlife that currently uses the canals for movement will continue to use the canal system to move through the site at project build-out.

To allow for ground movement of wildlife through the Project Site, all fencing enclosing the Daylight Legacy 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 canal system will be retained within the Project Site 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 Disturbance to Native Wildlife Nursery Sites

Potential Impacts. The aquatic habitat associated with the irrigation canals and ditches within and adjacent to the Project Site could provide nursery sites for native wildlife. Since these features would be avoided by the Daylight Legacy Solar project, the potential impacts to wildlife nursery sites would be less-than-significant.

Mitigation. No mitigation is warranted.

3.3.10 Impacts to Jurisdictional Waters and Sensitive Aquatic Habitats

Potential Impacts. Onsite waters may be present in some agricultural canals and ditches, although most are no longer used and are dry. Agricultural canals and ditches are unlikely to be claimed as waters of the U.S. but would be considered waters of the State. The proposed project will avoid all of these features. Therefore, impacts to jurisdictional waters would be considered less than significant.

No other sensitive aquatic habitats (e.g., wetlands or riparian habitats) are present on the site.

Mitigation. Mitigation measures are not warranted.

3.3.11 Local Policies or Habitat Conservation Plans

Potential Impacts. The Daylight Legacy Solar project would comply with the provisions of Kings County General Plan polices. In particular, the project's avoidance of onsite 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. 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 programs, adaptive management, and economic and social considerations. The only species addressed in the recovery plan that potentially occurs in the Project Site vicinity is the San Joaquin kit fox, although no sightings of this species have been recorded within the immediate vicinity of the Project Site, with the closest recorded observation being more than five miles from the Project Site and no sightings have been recorded in a ten-mile radius of the Project Site since 2002, 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 A: ANALYSIS OF CUMULATIVE IMPACTS TO SWAINSON'S HAWK FORAGING HABITAT IN THE VICINITY OF THE DAYLIGHT LEGACY SOLAR PROJECT SITE

The purpose of this analysis is to provide information to complete a cumulative impacts assessment for the Daylight Legacy Solar Project in accordance with Section 15130 of the California Environmental Quality Act (CEQA) Guidelines. These guidelines require that cumulative impacts of a project are discussed when a project's incremental effects are cumulatively considerable (15065(a)(3)). A cumulative impact is an impact that is created as a result of the combination of the proposed project together with other projects causing related impacts (15355). CEQA guidelines define "cumulatively considerable" as a situation in which "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

In accordance with the CEQA Guidelines, the following discussion of cumulative impacts reflects the standards of practicality and reasonableness and focuses on those cumulative impacts likely to result from the proposed project in combination with other past, present, and probable future solar projects in the vicinity. A list of such projects was provided by Bert Verrips and the County of Kings in July 2023 (B. Verrips, pers. comm., July 19, 2023).

The subject of this analysis is the Swainson's hawk (SWHA) (*Buteo swainsoni*), a California threatened species that relies largely on agricultural lands to meet its foraging needs. The objectives of this analysis include using available data to:

1. Identify past, current, and probable future projects for cumulative impacts assessment.
2. Determine distribution and abundance of nesting Swainson's hawks in the study area.
3. Determine Swainson's hawk foraging habitat requirements in the study area.
4. Assess the cumulative impacts of the Daylight Legacy Solar Project on the distribution and abundance of Swainson's hawk foraging habitat.

INCORPORATION BY REFERENCE OF ANALYSIS FROM WESTLANDS SOLAR PARK PROGRAM EIR

This analysis and larger biological report are intended to support the preparation of a Mitigated Negative Declaration (MND) for the Daylight Legacy Solar Project. Because the MND is a subsequent CEQA document that is being tiered off the Program EIR (PEIR) for the Westlands Solar Park (WSP) Master Plan and Gen-Tie Corridors Plan, the biological analysis in the PEIR applies to the MND and this biological report and is incorporated into them by reference. As such, the analysis and conclusions of the PEIR with respect to the contribution of WSP implementation to cumulative loss of Swainson's hawk foraging habitat are fully applicable to the Daylight Legacy Solar Project. This analysis builds on the foraging habitat analysis contained in the PEIR, which is incorporated into this document by reference as provided by CEQA.

STUDY AREA

The study area, or geographic scope, evaluated for cumulative impacts is defined by a 10-mile radius surrounding the approved WSP Master Plan area, which encompasses approximately 20,938 acres. A 10-mile radius was selected because it approximates the upper limit of the flight distance between Swainson's hawk nesting and foraging sites, based on telemetry studies conducted by Estep (1989) and Babcock (1993). The 10-mile study area covers approximately 443,207 acres (692 square miles).

The Daylight Legacy Solar Project is situated at the approximate center of both the WSP Master Plan area and 10-mile study area and encompasses approximately 2,107 acres. It is located approximately 7 miles east of the City of Huron and 8 miles southwest of the City of Lemoore. The site conditions on the Daylight Legacy Solar Project site reflect those of the entire WSP Master Plan area, and consist of cultivated fields, fallow fields/pastures, agricultural roads, and irrigation canals and ditches.

The 10-mile study area contains the cities of Lemoore, Huron, and Avenal, the communities of Stratford and Kettleman City, and Naval Air Station Lemoore. Surrounding lands within the study area are similar to the Daylight Legacy Solar Project site with fallow/idle cropland, active agricultural fields, and grass/pasture dominating the landscape (USDA 2023).

A few natural features are located within the 10-mile study area. Natural Resource Conservation Service Wetlands Reserve Program land is located approximately 5 miles to the northeast of the WSP Master Plan area and the Arroyo Pasajero Westside Detention Basin is located approximately 5 miles to the west of the WSP Master Plan area; both areas support natural (and naturalized) habitats and are subject to flooding. Bureau of Land Management Areas of Critical Environmental Concern are located approximately 4 miles west and southwest of the WSP Master Plan area. Portions of the North Fork, South Fork, and Clark's Fork of the Kings River are present within the study area, these tributaries support both riparian and riverine habitat. Irrigation canals and ditches are also located throughout the study area.

PROPOSED AND APPROVED PROJECTS WITHIN THE STUDY AREA

As of July 2023, 26 solar projects located outside of the WSP Master Plan area were identified within the 10-mile study area. Acreages for these solar projects were calculated using aerial imagery and information obtained from Kings and Fresno Counties. Projects within Kings County include Sun City (180 acres); Sand Drag (240 acres); Avenal Park (86 acres); American Kings (978 acres); Riverwest (836 acres); Kansas South (230 acres); Kansas (200 acres); Mustang (1,422 acres); Orion (200 acres); Kent South (200 acres); Kettleman Solar (220 acres); Lemoore 14 (60 acres);; Java Solar (96 acres); Mustang 2 (1,450 acres); Slate (2,490 acres); Utica Avenue Solar (30 acres); Cherry Solar (2,079 acres); Kings CSG 1 (30 acres); Kings GSC 3 Solar (20 acres); and NAS Lemoore Solar (930 acres). Projects within Fresno County include PG&E Huron (~240 acres); PG&E Gates (57 acres); Westlands Solar Farm (92 acres); Fifth Standard Solar (1,400 acres); Key Energy Storage (318 acres); and San Luis Solar (777 acres). Collectively, these projects encompass approximately 14,861 acres of the study area. With the addition of the planned Westlands Solar Park (20,938 acres), which includes the Daylight Legacy Solar Project, the total area covered by the cumulative projects is approximately 35,799 acres. The USDA Cropland Data Layer (Figure 1) shows 13 of the above-listed projects as developed, representing a combined area of 4,203 acres. Thus, the cumulative total land area for the remaining undeveloped projects, including the Westlands Solar Park, is 31,596 acres.

METHODS

LOA conducted a regional analysis of foraging habitat availability and Swainson's hawk abundance patterned after methodologies developed by Jim Estep (Estep 2011), a wildlife biologist who has monitored Swainson's hawk populations and conducted research on the Swainson's hawk for over 35 years. Briefly, the analysis consisted of (1) estimating the abundance of nesting Swainson's hawks in the study area, (2) estimating the amount of suitable Swainson's hawk foraging habitat in the study area, (3) estimating the amount of "surplus" foraging habitat in the study area beyond what is needed by the study area's nesting pairs, (4) assessing cumulative impacts to Swainson's hawk foraging habitat in the study area with an eye to retaining sufficient surplus acreage for population expansion.

Swainson's Hawk Abundance

To obtain a reasonable estimate of the number of nesting pairs of Swainson's hawks within the study area, LOA compiled all known nest locations documented or confirmed in 2017 or later, as reported in the CNDDB (CDFW 2023), observed by LOA, or included in the results of a large-scale study conducted by Jim Estep for the American Kings Solar Project (Estep 2017). Although CDFW's mitigation guidance for the Swainson's hawk (CDFG 1994) defines an active Swainson's hawk nest as one that has been documented within the past five years, LOA is not aware of any systematic Swainson's hawk nesting surveys in the study area within this timeframe. Conservatively extending the cutoff to six years allowed us to utilize Jim Estep's comprehensive survey data, and provided assurance that Swainson's hawk nests were not undercounted.

Land Use Classification

To determine the amount of suitable Swainson's hawk foraging habitat in the study area, the study area's land uses were first identified and mapped using the 2023 U.S. Department of Agriculture (USDA) National Agricultural Statistics Service Cropland Data Layer (CDL) (USDA 2023; Han et al. 2012; Boryan et al. 2011). The CDL is a raster-format, georeferenced, crop-specific land cover data layer created annually for the continental United States using moderate resolution satellite imagery and extensive agricultural ground truthing (USDA 2023).

LOA classified the study area's 71 CDL-derived land uses into six cover type categories based on relative foraging suitability for Swainson's hawks. Habitat suitability was determined based on expert opinion (Estep 1989, Estep 2009, Estep 2011) and agency guidelines (CDFG 1994). The six categories are:

- Alfalfa
- Pasture, Fallow, and Open Natural Land
- Row and Field Crops
- Orchard and Vineyard
- Developed
- Water and Woodland

As will be discussed in more detail in the Results section, the first three categories above are considered suitable as Swainson's hawk foraging habitat, while the latter three categories are considered unsuitable. LOA calculated the acreage of each cover type category, both within the project site and larger 10-mile study area. The collective acreage of the three suitable categories within the study area is hereafter referred to as *available foraging habitat*.

Required and Surplus Foraging Habitat

To estimate the amount of foraging habitat needed to sustain nesting pairs of Swainson's hawks within the study area, LOA multiplied the number of known nest locations by 6,820 acres, which Estep (1989) found to be the average amount of foraging habitat utilized per pair. The resulting number was then reduced by 30 percent to account for overlap of foraging ranges of different pairs (Estep 2011). The value obtained from these steps is referred to as *required foraging habitat*.

Next, the study area's required foraging habitat acreage was subtracted from available foraging habitat acreage to yield an estimate of *surplus foraging habitat*, or foraging habitat within the study area that is in excess of what is required by the Swainson's hawk pairs nesting within. Finally, the percent loss of surplus foraging habitat that would cumulatively result from solar developments in the study area was calculated. This was accomplished by dividing the approximate acreage of these developments by surplus foraging habitat acreage and multiplying by 100. Project-related loss of foraging habitat was considered a significant impact requiring compensatory mitigation if it

exceeded a 30 percent reduction of surplus foraging habitat, consistent with the Estep (2011) methodologies.

RESULTS

Swainson's Hawk Abundance

Thirty-seven SWHA nests have been documented or confirmed within the study area since 2017 (Figure 1). This analysis assumes all 37 nests would be occupied in any given year considering the generally high degree of nest fidelity by Swainson's hawks. All nests are located between 3.5 and 11 miles from the Daylight Legacy Solar Project site. The northern end of the project gen-tie line is 2 miles from the nearest nest site.

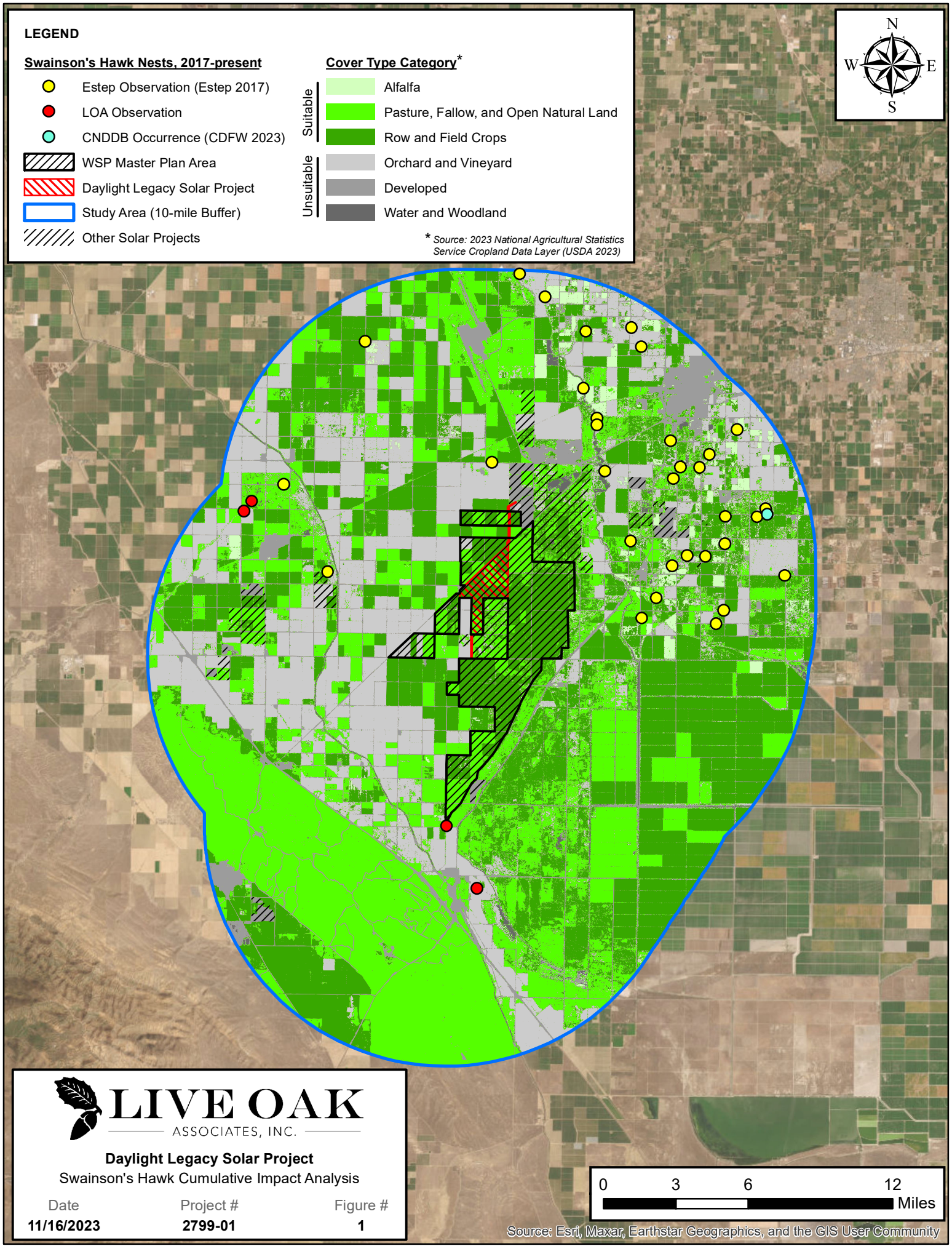
Land Use Cover Types and Foraging Suitability

There are six cover type categories in the 443,207-acre study area and three cover type categories on the Daylight Legacy Solar Project site. The areal extent, relative abundance, and SWHA foraging value of each of the study area's cover type categories is listed in Table 1 and described below.

TABLE 2. LAND COVER AND HABITAT SUITABILITY OF STUDY AREA AND PROJECT SITE (USDA 2023).

Land Cover Type Category	SWHA Foraging Value	Study Area Acres (Percent of Total)	Project Site Acres (Percent of Total)
Alfalfa	High	8,433 (1.9%)	0 (0%)
Pasture, Fallow, and Open Natural Land	Medium-High	150,093 (33.8%)	789 (37.4%)
Row and Field Crops	Medium	150,305 (33.9%)	1237 (58.7%)
Orchard and Vineyard	Low-None	100,831 (22.8%)	0 (0%)
Developed	None	29,837 (6.7%)	81 (3.9%)
Water and Woodland	None	3,708 (0.8%)	0 (0%)
Total		**443,207 (100%)**	**2,107 (100%)**

Alfalfa. Alfalfa is considered to have the highest foraging value for SWHA (Estep 1989, 2012). This crop remains in fields for up to five years. Alfalfa management includes mowing and irrigation, which can expose rodent prey and make prey more accessible to SWHA (Estep 2012).


LEGEND
Swainson's Hawk Nests, 2017-present
Estep Observation (Estep 2017)
LOA Observation
CNDDB Occurrence (CDFW 2023)
WSP Master Plan Area
Daylight Legacy Solar Project
Study Area (10-mile Buffer)
Other Solar Projects
Cover Type Category*
Suitable
Alfalfa
Pasture, Fallow, and Open Natural Land
Row and Field Crops
Unsuitable
Orchard and Vineyard
Developed
Water and Woodland
* Source: 2023 National Agricultural Statistics Service Cropland Data Layer (USDA 2023)
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W
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LIVE OAK
ASSOCIATES, INC.
Daylight Legacy Solar Project
Swainson's Hawk Cumulative Impact Analysis
Date
11/16/2023
Project #
2799-01
Figure #
1
0
3
6
12
Miles
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Pasture, Fallow, and Open Natural Land. This cover type category includes lands classified in the CDL as fallow/idle cropland, grassland/pasture, herbaceous wetlands, and shrubland. This cover type may provide medium to high forage value to Swainson's hawks depending upon prey availability.

Row and Field Crops. The cover type category includes all of the CDL's cultivated, non-woody crop classifications save alfalfa. In the study area, this category is dominated by winter wheat, tomatoes, and cotton. Other crops include barley, cantaloupes, carrots, corn, durum wheat, garlic, honeydew melons, lettuce, oats, onions, other hay/non-alfalfa, rice, rye, safflower, sorghum, and triticale. Row and field crops are generally of moderate foraging suitability for SWHA (Estep 1989). Foraging value may fluctuate based on timing of harvest and planting.

Orchard and Vineyard. This cover type category includes all tree and vine crops classified in the CDL. In the study area, this category is dominated by pistachios and almonds, but also includes cherries, citrus, grapes, nectarines, oranges, peaches, pecans, plums, pomegranates, and walnuts. Orchards and vineyards are of little to no foraging value to SWHA due to a lack of prey accessibility (Woodbridge 1998).

Developed. This cover type category includes lands classified in the CDL as low, medium, or high intensity development, developed open space, and barren. In the study area, it includes the towns of Avenal, Huron, Kettleman City, Lemoore, Lemoore Station, Naval Air Station Lemoore, and Stratford, and also includes roads and rural developments (e.g., cattle corrals and other infrastructure). This cover type has no appreciable value as Swainson's hawk foraging habitat; however, trees located on these lands may provide nesting habitat in some situations.

Water and Woodland. This category includes open water and all tree-dominated natural lands, which in the study area include deciduous forest, mixed forest, evergreen forest, and woody wetlands as classified by the CDL. It is important to note that the study area's forest and woodland habitats are likely to provide nesting habitat for SWHA despite being unsuitable for foraging.

Foraging Habitat Cumulative Analysis

Table 2 below presents LOA's calculations with respect to available foraging habitat, required foraging habitat, and surplus foraging habitat for Swainson's hawks is the 10-mile study area, as well as the cumulative loss of surplus foraging habitat expected to result from other undeveloped solar projects. For the purpose of this analysis, it is conservatively assumed that the undeveloped solar project sites in the study area, including the Westlands Solar Park, consist entirely of suitable Swainson's hawk habitat that will be lost to development.

TABLE 3. CUMULATIVE IMPACT ANALYSIS FOR SWHA FORAGING HABITAT WITHIN THE STUDY AREA

Foraging Habitat	Acres	Percent
Available foraging habitat within study area	308,831	-
Unadjusted foraging habitat required to support 37 SWHA pairs	252,340	-
Adjusted foraging habitat required to support 37 SWHA pairs (adjusted for 30% range overlap)	176,638	-
Surplus SWHA foraging habitat (a-c)	132,193	-
Cumulative loss of foraging habitat from WSP Master Plan and 13 other undeveloped solar projects in the study area*	31,596	-
Remaining available foraging habitat following cumulative impacts (a-e)	277,235	89.8%
Remaining available surplus SWHA foraging habitat following cumulative impacts (d-e)	100,597	76.1%

*This conservatively assumes that all of the cumulative development acreage constitutes suitable SWHA foraging habitat. This acreage does not include projects that are developed as reflected on the CDL, since this acreage is already accounted for as "developed" in Figure 1.

The study area contains 308,831 acres of available foraging habitat for Swainson's hawks. The required foraging habitat for 37 nesting pairs is 176,638 acres; again, this assumes 6,820 acres per pair, less 30 percent to account for foraging overlap. Hence, there are 132,193 acres of surplus foraging habitat in the study area. As discussed, the 13 undeveloped solar projects in the study area, in combination with the WSP Master Plan area, have a collective footprint of 31,596 acres, much of which is (or was) suitable for Swainson's hawk foraging pre-buildout. Even if it is conservatively assumed that this cumulative acreage is entirely suitable for Swainson's hawk foraging at present and will be entirely lost to this species as a result of project implementation, 100,597 acres of surplus foraging habitat will remain available to the study area's Swainson's hawks following buildout.

Estep (2011) considered a loss of 30 percent or more of surplus foraging habitat "significant" per the provisions of CEQA because, in his opinion, this level of loss could reduce the distribution and abundance of an existing Swainson's hawk population and/or prevent that population from expanding. Along with the other undeveloped solar projects in the study area, the Daylight Legacy Solar Project will contribute to an overall 23.9 percent reduction in surplus foraging habitat for Swainson's hawks. Based on the 30 percent threshold established by Estep (2011), a recognized expert in the field, the study area's Swainson's hawk population can presumably tolerate this level of loss. Therefore, cumulative impacts to Swainson's hawk foraging habitat associated with implementation of the Daylight Legacy Solar Project are considered less than significant under CEQA.

APPENDIX B: ANALYSIS OF POTENTIAL IMPACTS TO BURROWING OWL HABITAT ASSOCIATED WITH THE DAYLIGHT LEGACY SOLAR PROJECT

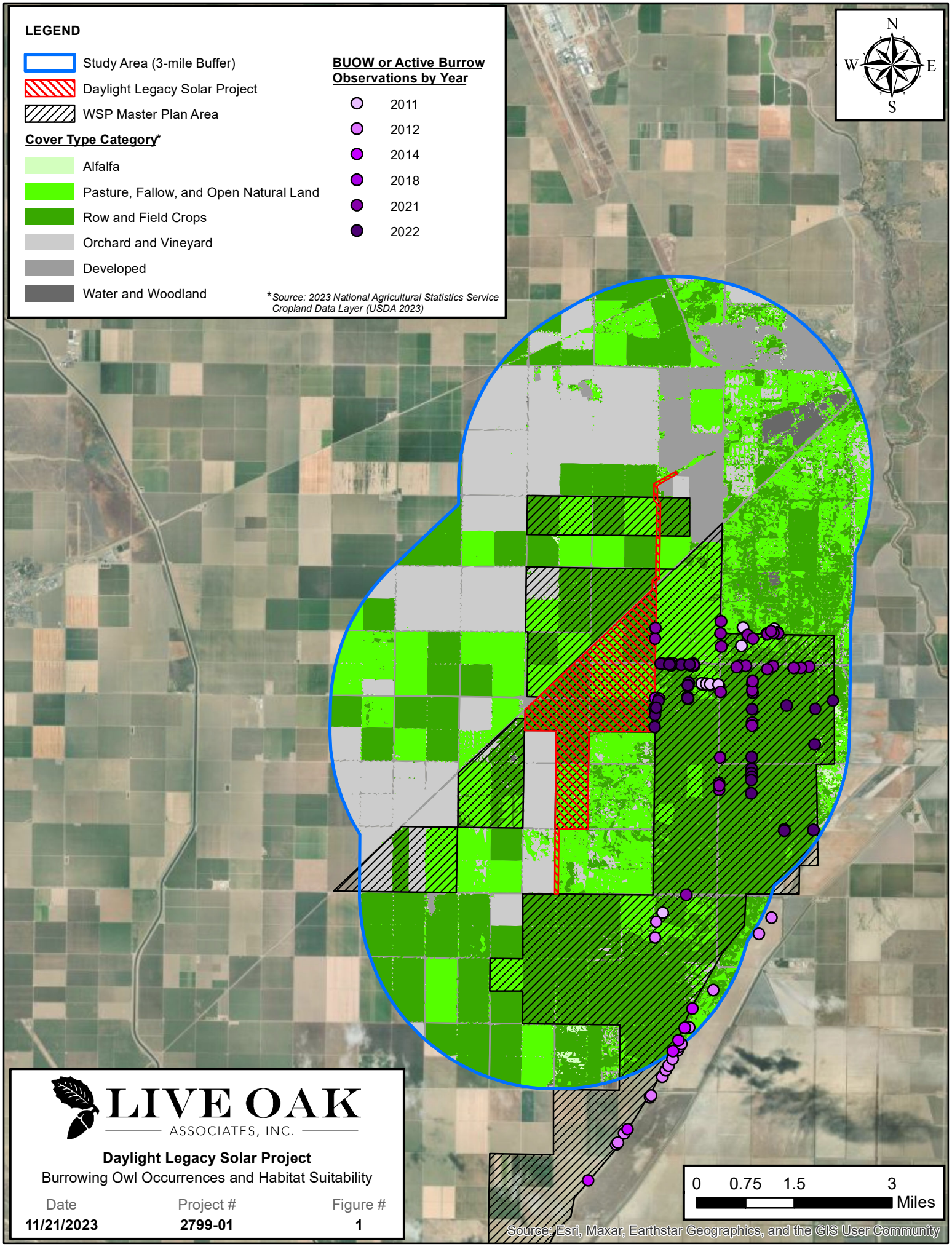
LOA used the 2023 U.S. Department of Agriculture (USDA) National Agricultural Statistics Service Cropland Data Layer (CDL) (USDA 2023) to identify and map potentially suitable habitat for burrowing owls within the Daylight Legacy Solar Project site and a 3-mile buffer ("study area") (Figure 1). The CDL's land cover types were reclassified into six categories, generally grouped according to their potential suitability as burrowing owl burrow and foraging habitat. The six categories are:

Alfalfa – Year-Round Burrow and Foraging Habitat. Alfalfa is a perennial crop that is suitable for burrowing owl foraging throughout the year and may offer burrow habitat in its irrigation berms or around its perimeter.

Pasture / Fallow / Open Natural Land - Year-Round Burrow and Foraging Habitat. Fallow fields and other open, minimally disturbed upland habitats are often suitable as burrow and foraging habitat throughout the year. CDL cover types in this category include fallow/idle cropland, grassland/pasture, and shrubland.

Row and Field Crops – Seasonal or Year-Round Foraging Habitat. Active agricultural fields may be suitable as burrowing owl foraging habitat, with foraging value varying by crop, growth stage, and maintenance regimen. Some crops may be used year-round, while others develop vegetative characteristics unconducive to foraging by this species and are primarily used after harvest. Cover types in this category include all of the study area's cultivated, non-woody crop classifications save alfalfa, for example, cantaloupes, carrots, corn, cotton, garlic, onions, safflower, tomatoes, triticale, winter wheat, and non-alfalfa hay crops.

Developed – Varied Suitability. Cover types in this category include developed/high intensity, developed/low intensity, developed/medium intensity, developed/open space, and barren. Generally speaking, the developed/high intensity cover type within the study area encompasses paved roads and existing solar facilities, which do not represent suitable burrow or foraging habitat for burrowing owl. The study area's developed/low intensity, developed/medium intensity,



LIVE OAK ASSOCIATES, INC.

Daylight Legacy Solar Project

Burrowing Owl Occurrences and Habitat Suitability

Date	Project #	Figure #
11/21/2023	**2799-01**	**1**

developed/open space, and barren classifications generally apply to unpaved roads and road shoulders and may offer year-round burrow habitat for this species.

***Orchard / Vineyard - No Burrow or Foraging Habitat*.** Orchards and vineyards do not represent burrowing owl burrow or foraging habitat. The study area's orchard and vineyard cover types include pistachios, almonds, grapes, pomegranates, and oranges, among others.

Water and Woodland – No Burrow or Foraging Habitat. This category is intended to encompass remaining unsuitable CDL cover types such as aquatic and woodland habitats. In the study area, these types were limited to open water and herbaceous wetlands.

Based on the 2023 CDL (USDA 2023) and current understanding of burrowing owl habitat needs, the project site consists entirely of habitat that is suitable for this species on at least a seasonal basis (Table 1 and Figure 1). Suitability is likely to fluctuate depending on management practices. For example, LOA's July 2023 site surveys found many of the fields freshly disked, which likely drove down the site's potential to be used or occupied by burrowing owls.

TABLE 4. LAND COVER AND HABITAT SUITABILITY OF PROJECT SITE AND 3-MILE STUDY AREA (USDA 2023)

Land Cover Type Category	Habitat Value for BUOW	Project Site Acres (Percent of Total)	3-mile Study Area Acres (Percent of Total)	
			2023	Future*
Alfalfa	Year-round burrow and foraging habitat	0 (0%)	141 (0.3%)	131 (0.3%)
Pasture / Fallow / Open Natural Land	Year-round burrow and foraging habitat	789 (37.4%)	13,004 (26.5%)	7,271 (14.8%)
Row and Field Crops	Seasonal or year-round foraging habitat	1237 (58.7%)	22,912 (46.7%)	10,047 (20.4%)
Orchard and Vineyard	No burrow or foraging habitat	0 (0%)	9,230 (18.8%)	8,303 (16.9%)
Developed	Varied suitability	81 (3.9%)	3,390 (6.9%)	22,957 (46.8%)
Water and Woodland	No burrow or foraging habitat	0 (0%)	385 (0.8%)	353 (0.7%)
Total		2,107 (100%)	49,062 (100%)	49,062 (100%)

* Future acreage values assume full conversion of WSP Master Plan area and adjoining Cherry Solar Project site to developed uses.

The 3-mile study area was also overwhelmingly suitable for the burrowing owl per the 2023 CDL; however, over 40 percent of the study area (20,065 acres) is proposed for solar development under the Westlands Solar Park (WSP) Master Plan and adjoining Cherry Solar Project. Full buildout of the solar sites will shift the study area's land cover from predominantly row and field crops to predominantly developed uses (see Table 1).

Burrowing owls are well-documented in the 3-mile study area. Past surveys conducted by LOA for the WSP Master Plan, and its constituent projects yielded numerous observations of burrowing owls and their burrows between 2011 and 2022 (see Figure 1), including both breeding (2011-2018) and overwintering (2021-2022) observations. Seven of these observations were made along the eastern boundary of the project site itself, and four additional observations were made within 500 feet east of the site within the adjacent Solar Blue project site. These eleven observations were made in 2018, 2021, and 2022, and represented both breeding and overwintering owls and their burrows.

Most of LOA's burrowing owl observations within the WSP Master Plan area have been made along access roads and canal banks, rather than in fields or other "interior" habitats. The observed individuals were presumably using the study area's linear features for roosting and nesting, and foraging in the adjoining fields, a typical pattern for this species in agricultural landscapes (Gervais et al. 2008). Although the study area's linear features may continue to provide burrow habitat following buildout of the various solar projects, loss of foraging opportunity is expected to reduce the overall suitability of the landscape for burrowing owls and may result in burrowing owls shifting their use to other portions of the study area, or leaving the study area altogether. The Daylight Legacy Solar Project site may become more critical to this species as surrounding lands are converted to solar development.

APPENDIX C

Water Supply Assessment

Prepared by

Water Resources Planning

December 2023

Water Supply Assessment

Daylight Legacy Solar Project

Kings County, California

Prepared for:

Bert Verrips, AICP, Environmental Consulting

December 2023

Karen E. Johnson
Water Resources Planning
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TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION

Background and Purpose..... 1

Description of the Proposed Project..... 2

Daylight Legacy Solar Project..... 2

CHAPTER 2 – WATER DEMANDS

Climatic Conditions..... 6

Project Water Demands..... 6

Construction Water Use..... 7

Operational Water Use..... 7

Historical Water Production..... 8

CHAPTER 3 – WATER SUPPLIES

Current Water Use..... 9

Surface Water Supplies..... 9

Regional Groundwater Supply..... 10

Subbasin Characteristics..... 10

Groundwater Level Trends..... 13

Overdraft and the Groundwater Sustainability Plan..... 14

Aquifer's Ability to Recover..... 14

Sustainable Yield..... 15

Westlands Water District Solar Project Supply Availability..... 16

Water Management Agencies and Activities..... 16

Westlands Water District..... 16

Fresno Area Regional Groundwater Management Plan..... 18

Water Supply Reliability..... 18

Other Planned Solar Projects..... 20

CHAPTER 4 – CONCLUSIONS

Sufficiency Findings..... 22

REFERENCES..... 23

APPENDIX A - Letter from Westlands Water District regarding CUP No.23-03

TABLES

Table 1 – Climate Data..... 6
Table 2 – Construction Water Demand..... 7
Table 3 – Operational Water Demand..... 8
Table 4 – Westlands Water District Water Supplies..... 11
Table 5 – Groundwater Use and Elevation Change in Westlands Water District..... 13
Table 6 – Daylight Legacy Solar Project Supplies and Demand..... 19

FIGURES

Figure 1 – Regional Location..... 3
Figure 2 – Project Vicinity 4
Figure 3 – Overall Site Plan 5

CHAPTER 1 – INTRODUCTION

BACKGROUND AND PURPOSE

This Water Supply Assessment (WSA) was prepared for Bert Verrips, AICP, Environmental Consulting, the firm preparing the Initial Study/Mitigated Negative Declaration (IS/MND) for the Daylight Legacy Solar Project (project) on behalf of Kings County Community Development Agency (CDA). CDA is the lead agency conducting the environmental review of the project.

The primary purpose of the WSA is to determine if there is sufficient water supply to meet the demands of the project and future water demands under normal and dry water years over the next 20 years. The WSA will be included in the IS/MND prepared for the project pursuant to the California Environmental Quality Act (CEQA). This forms the basis for an assessment of water supply sufficiency in accordance with the requirements of California Water Code §10910, *et seq.* The WSA was prepared in conformance with the requirements of Senate Bill 610 (Chapter 643, Statutes of 2001) (referred to here as SB 610). SB 610 was adopted, along with a companion measure Senate Bill 221 effective January 1, 2002, to improve the nexus between land use planning and water supply availability. Information regarding water supply availability is to be provided to local public agency decision makers prior to approval of development projects that meet or exceed specific criteria.

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects defined above.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

SB 610 was not originally clear on whether renewable energy projects are subject to SB 610 and require a WSA. However, SB 267 was signed into law on October 8, 2011, amending California's Water Law to revise the definition of "project" specified in SB 610. Under SB 267, wind and photovoltaic projects which consume less than 75 acre-feet per year (afy) of water are not considered to be a "project" under SB 610 (DWR, 2003b). As discussed in Chapter 2, a water demand of 319 afy will be needed for construction over 12 months, with an ongoing annual operational demand of 7.4 afy after construction is completed.

There is no public potable water system available or needed to serve the project. The project site is located within the boundaries of Westlands Water District (District) which provides irrigation water to users within its jurisdiction. The District does not deliver treated water for human consumption and is not considered a public water system. Water required during construction and operation of the project does not need to be treated for human consumption and will be obtained from groundwater wells and/or from the District. There is no Urban Water Management Plan (UWMP) that accounts for the project water demands because UWMPs are prepared by urban water suppliers. The District is not considered an urban water supplier and is not required to prepare an UWMP.

DESCRIPTION OF THE PROPOSED PROJECT

Daylight Legacy Solar Project

The Daylight Legacy Solar Project is planned as a 300 MW solar generating facility on a 2,107-acre site located on the southeast side of Avenal Cutoff Road, between 25th Avenue and Nevada Avenue in west-central Kings County (see Figure 1, Regional Location, and Figure 2, Project Vicinity).

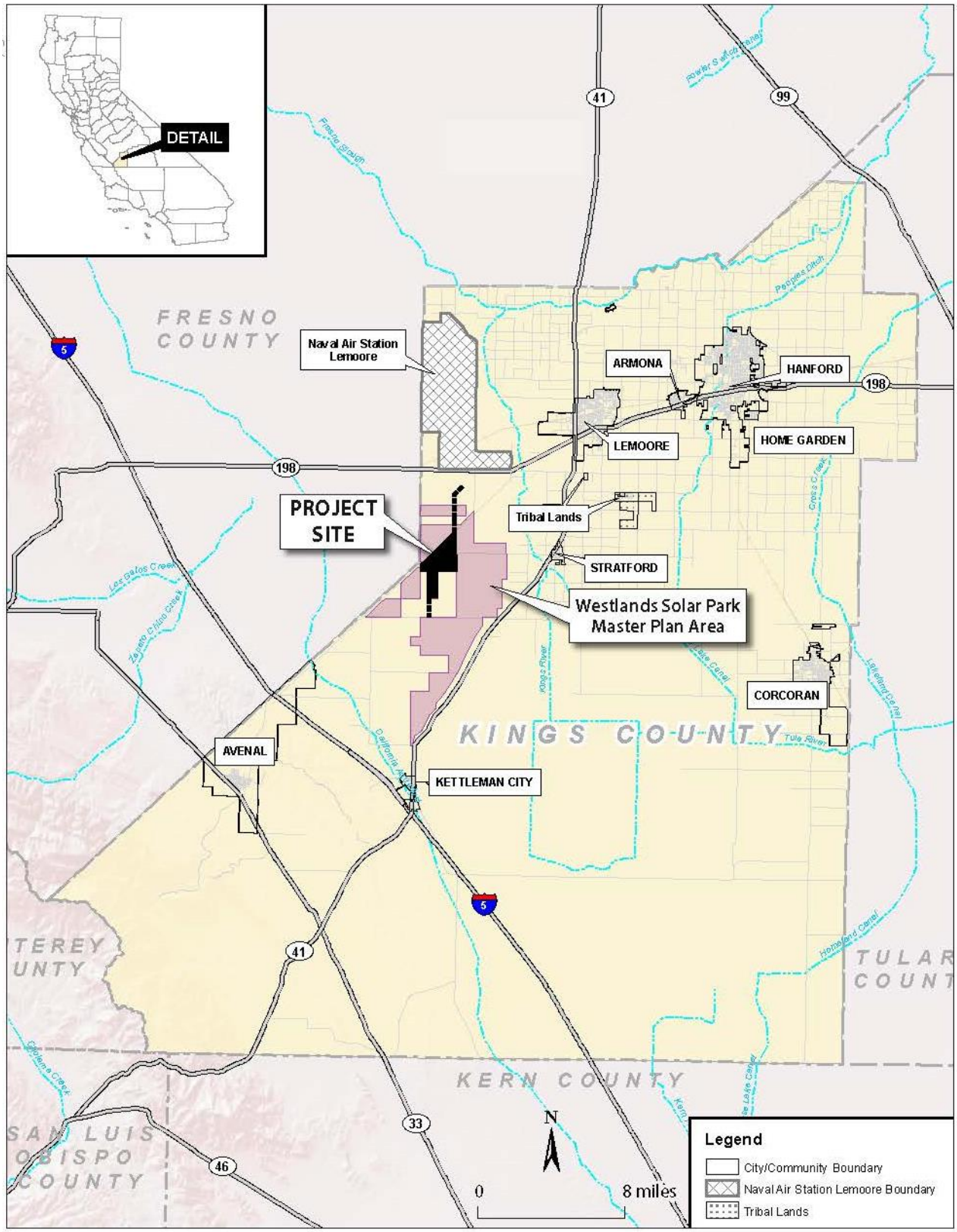
Solar panels

The Daylight Legacy Solar Project will largely consist of solar modules mounted on a series of horizontal single-axis trackers to be oriented in north-south rows which will rotate the solar arrays in an east-west direction. The solar modules generate direct current (DC) power and the electricity travels via underground cables to inverters to be converted to alternating current (AC) power. The project will include a total of 83 power conversion stations with power rating of 4.2 MW each, which will step up the generated power to a collection voltage of 34.5-kV. The project will also include a battery storage facility with a capacity of up to 1,200 MW hours.

The Daylight Legacy Solar Project will include an Operations and Maintenance (O&M) facility and substation near the eastern site boundary, approximately 0.5 mile north of Laurel Avenue, which traverses the site from east to west. The on-site substation will step up the generated power from 34.5-kV collection voltage to 230-kV for transmission via a new Gen-Tie Line to be constructed in conjunction with the Daylight Legacy Solar Project. The project site plan is presented in Figure 3.

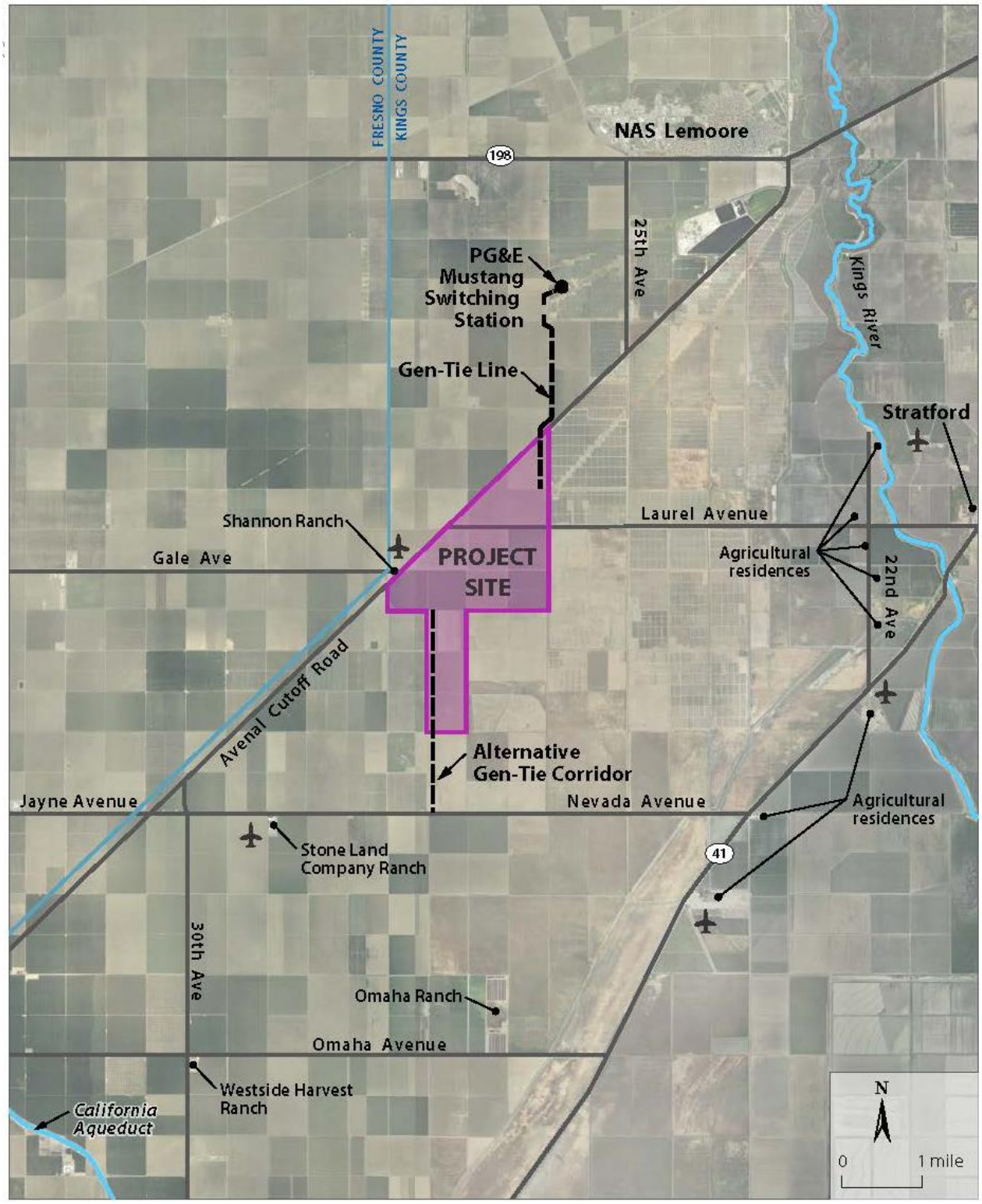
The Gen-Tie Line will convey the solar power generated at the Daylight Legacy solar facility northward for a distance of 2.5 miles to the existing PG&E Mustang Switching Station. An alternative gen-tie route, extending from the south project boundary southward for one mile to Nevada Avenue is also under consideration. The total length of the alternative gen-tie line (onsite and off-site segments) would be the same as the planned gen-tie line at 2.5 miles. Domestic wastewater disposal would be provided by a septic tank and leachfield system located adjacent to the O&M building. During construction, wastewater needs would be provided by portable chemical toilets which will be serviced by a private contractor.

Chapter 2 of this WSA provides a discussion of future project water demands and historical site demands. Water supply information is provided in Chapter 3. The comparison of demands with supplies and the reliability of supplies is provided in Chapter 4 followed by the sufficiency findings in Chapter 5.



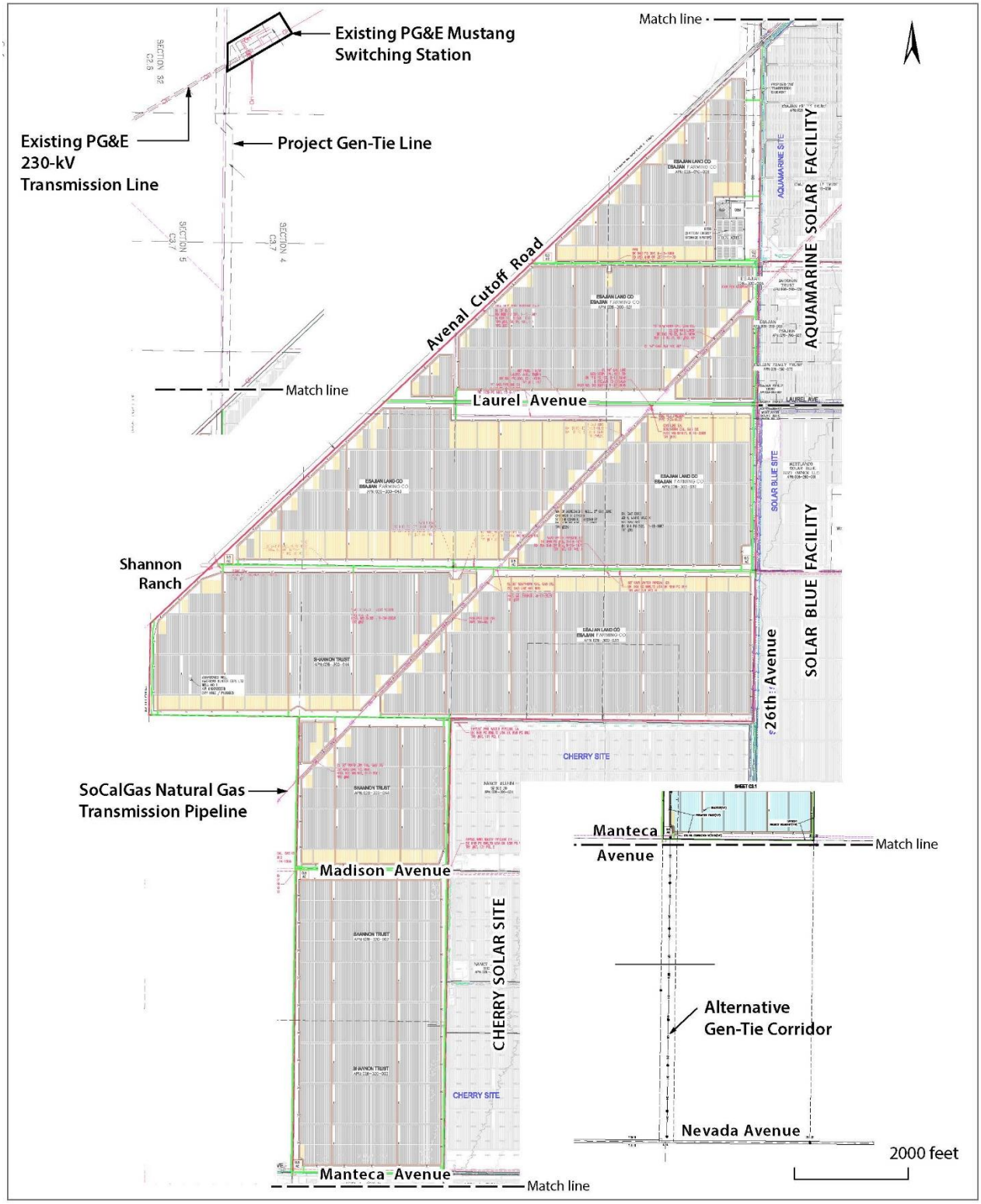
Source: Kings County Community Development Agency
Map Source: Bert Verrips, AICP, Environmental Consulting, 2023

Regional Location
Figure 1



Source: Google Earth
Map Source: Bert Verrips, AICP, Environmental Consulting, 2023

Project Vicinity
Figure 2



Source: DK Engineering
Map Source: Bert Verrips, AICP, Environmental Consulting, 2023

Overall Site Plan
Figure 3

CHAPTER 2 – WATER DEMANDS

Regional climatic characteristics are summarized here. Projected project water demands and current water production requirements for the site are also presented.

CLIMATIC CONDITIONS

The project area is in the semi-arid San Joaquin Valley. Temperatures during the summer are hot, frequently exceeding 100 degrees Fahrenheit. Cool winters occasionally fall below freezing. Average maximum and minimum temperatures are presented in Table 1 for the closest active station which is near Stratford. The growing season is long with most rainfall occurring between October and March. As presented in Table 1, the average annual precipitation in this region is 7.45 inches. With climate change, the State Department of Water Resources (DWR) expects a reduced snowpack in the Sierra Nevada, spring runoff shifting to earlier in the year, more frequent and extreme dry periods, and shorter winters.

Table 1. Climate Data

Month	Average Maximum Temperature (F)	Average Minimum Temperature (F)	Average Precipitation (inches)
January	57	37	1.57
February	63	39	1.34
March	69	43	1.11
April	76	46	0.53
May	84	53	0.37
June	92	58	0.04
July	97	63	0.01
August	95	63	0.00
September	91	57	0.05
October	80	48	0.67
November	67	40	0.42
December	57	36	1.34
Annual	**77**	**49**	**7.45**

Source: Temperature and precipitation from station Stratford, Ca #15, California Irrigation Management Information System (WWD, 2023b)

PROJECT WATER DEMANDS

Water demands for the Daylight Legacy Solar Project consist of temporary construction demands over a 12 month period and long term operational demands for washing the solar modules and general operations.

Construction Water Use

The highest water demands are associated with construction in preparing the site for the solar arrays and trenching for conduit. During this earthwork phase of construction, non-potable water will be used for dust control. Based on experience with similar solar projects in the region, each acre of construction area will require 0.15 acre-feet of water during construction.

The 300-MW project will occupy a total panel site area of 2,107 acres resulting in a total construction water demand of 316 acre-feet, as presented in Table 2. The gen-tie line would have an additional water demand of 3.0 acre-feet during construction. With a 12 month construction schedule, this equates to a total of 319 afy. Water supply for construction demands will be provided by an existing agricultural well in the project vicinity.

Table 2. Construction Water Demands

Activity	Water Use	Unit
Dust Control Demand Factor	0.15	acre-feet/acre
Total Construction Water Demands[1]	319	acre-feet
Annual Construction Demands[2]	319	AFY

[1]Based on 2,107 acre panel project site (316 AFY) and 2.5-mile long gen-tie line (3 AFY).
[2] Based on a 12 month construction period.
Source: Bert Verrips, AICP, Environmental Consulting, 2023.

Operational Water Use

Maintenance will primarily consist of washing the PV modules about two times each year to remove accumulated dust from panel surfaces. This is to maintain efficiency. The cleaning interval is determined by the rate at which electrical output degrades between cleanings. Periodic panel washing will most likely be needed during dry summer months with increased deposition of windblown dust from nearby agricultural operations. Light duty trucks with tow-behind trailers with small water tanks will transport the water; workers spray to wet the panel surfaces then squeegee the panels dry. No chemical cleaners will be used for module washing. Water demand unit factors, based on experience with other solar projects, are presented in Table 3. The panel washing unit factor is based on a reported average water usage rate of 0.01 acre-feet per MW for the 250 MW operational Aquamarine Solar Facility. Two panel cleaning cycles per year will use approximately 6.0 afy (1,955,106 gallons), or 6,517 gallons per MW per year (gal/MW/yr).

In addition to panel washing, sheep will be grazing the site for approximately five months during the first half of each year to keep site vegetation under control. Sheep grazing within the project area is based on 0.5 sheep per acre, on approximately 1,900 acres to remain in vegetative cover in the solar facility, for a total of 950 sheep. Sheep grazing five months (151 days) per year, at 3 gallons per day per sheep, equals 453 gallons per sheep per year. The total water required for the 950 sheep is therefore 430,350 gallons per year or 1,435 gal/MW/yr or 1.32 afy.

An additional ongoing water demand is for general operations and maintenance (e.g., equipment washing, septic system, and other non-potable water uses). The general operations unit demand is up to 100 gal/MW/yr as reported for the Aquamarine Solar Facility, currently in operation. For the 300 MW Daylight Legacy Solar Project, the total estimated annual operational water usage would be 30,000 gallons or 0.092 afy. No water would be required for the operation of the gen-tie line.

As presented in Table 3, with the project generating 300 MW at buildout, total operational water demands are 2.42 million gallons per year or 7.41 afy. This is equivalent to 0.0035 acre-feet per acre per year (af/ac/yr) or 0.56 acre-feet per quarter-section (160 acres). Small quantities of potable water will be required at the solar facilities for drinking and other uses. Potable water will be delivered to each site by a water delivery service. Overall, annual water demands are not anticipated to vary based on climatic conditions.

Table 3. Operational Water Demands

Activity	Water Use	Unit
Demand Factors		
Panel Washing Demand Factor	6,517	gal/MW/yr
Sheep Watering	1,435	gal/MW/yr
General Operations Demand Factor	100	gal/MW/yr
Project Water Demands		
Panel Washing Demands	1,955,106	gallons per year
	6.0	afy
Sheep Watering	430,350	gallons per year
	1.32	afy
General Operations Demands	30,000	gallons per year
	0.09	afy
Total Operational Water Demands	**2,415,456**	**gallons per year**
	2.42	**million gallons/year**
	7.41	**afy**

Note: Based on 300 MW project at buildout.
Source: Bert Verrips, AICP, Environmental Consulting, 2023.

HISTORICAL WATER PRODUCTION

In the recent past, the site has been used for the cultivation of cotton, tomatoes, and winter wheat, with varying portions of the site left fallow in any given year depending on availability of imported surface water supplies for irrigation. Current water use on the site is discussed in the following chapter.

CHAPTER 3 – WATER SUPPLIES

Water for project construction needs will be provided by the existing on-site agricultural well or another agricultural well in the project vicinity. Upon completion, water for ongoing operational water supplies will be obtained from the on-site agricultural well and/or provided by the District through its conveyance system from imported surface water sources. This section discusses surface water and groundwater available to the project, District supply conditions, water management activities, and reliability of project supplies.

CURRENT WATER USE

As discussed in Chapter 2, the 2,107-acre project site is currently under irrigated crop cultivation. Within the Daylight Legacy Solar Project site, agricultural water for irrigation is currently provided by the District from imported water supplies and by groundwater pumping from on-site wells. Annual consumption varies substantially depending on availability of imported surface water. The average rate of applied water can range from a high of up to 2.6 afy during years of full CVP water allocation with some supplemental groundwater pumping, to a low of 1.0 afy during years of zero imported water deliveries and total reliance on groundwater pumping. Based on these factors, it is estimated that annual volume of irrigation water historically applied at the project site ranged from approximately 2,100 afy to approximately 5,300 afy. The groundwater supply is non-potable water for crop irrigation; there are no sources of potable domestic water on the project site.

SURFACE WATER SUPPLIES

The Daylight Legacy Solar Project site, shown on Figure 2, lies entirely within the boundaries of the District. The WWD was formed in 1952 to serve agricultural water users on the west side of the San Joaquin Valley and has a service area of 614,700 acres, of which 46,700 acres is non-irrigated farmland. Fallowed lands vary annually. The total volume of water required for the entire irrigable area of 568,000 acres within WWD is about 1.5 million acre-feet. Upon completion of the San Luis Canal by the U.S. Bureau of Reclamation (USBR) in 1968, WWD began receiving deliveries of Central Valley Project (CVP) water from the Delta. Water is delivered from the Sacramento River-San Joaquin River Delta during winter months and is stored in the San Luis Reservoir. Water is then delivered to District growers through the San Luis Canal and the Coalinga Canal. Once it leaves the federal project canals, water is delivered through approximately 1,100 miles of buried pipeline maintained by Westlands Water District.

Westlands' annual water entitlement from the USBR's Central Valley Project is 1,193,000 acre-feet, or about 300,000 acre-feet less than irrigation needs of approximately 1.5 million afy. Thus, Westlands' surface water supply entitlement of CVP water is short even when 100 percent of the Contract water is available. Some of the difference is made up by well water from the lower aquifer and water transfers (the latter averaging 150,000 acre-feet per year).

The west side of the San Joaquin Valley was among the last areas in the Central Valley to receive imported water from the Delta and thus has a lower priority to receive contract water from the federal CVP. The south of Delta contractors suffer disproportionately during drought conditions when water deliveries are curtailed. For example, as presented in Table 4, during the ten year period between 2013 and 2022, WWD received its full 100 percent contract entitlement in only one year - 2017. In eight of those 10 years, WWD received water allocations that were 50 percent or less than its contract entitlement. The average annual water allocation received during that 10 year period was about 306,080 acre-feet, or 34 percent of the contract entitlement.

The District augments CVP contract water with other supplies such as flood flows from the San Joaquin and Kings rivers when available; these seasonal supplies are made available to the District as they flow into the Mendota Pool. Water transfers have become an important component in the District supply portfolio. Transfers and other purchases are included in Table 4 as Additional District Supply. Transfers from other water districts are pursued each year to supplement contract deliveries. The amount of groundwater pumped from the basin in any given year is typically inversely proportional to the availability of surface water supplies; this is evident for dry water years 2013 through 2016, 2021, and 2022; and the wet water year of 2017, for example, as shown in Table 4.

REGIONAL GROUNDWATER SUPPLY

Growers within the District service area augment District deliveries with pumped groundwater to meet irrigation needs. The Daylight Legacy Solar Project site is located within the Westside Subbasin (5-22.09) of the San Joaquin Valley Basin within the Tulare Lake Hydrologic Region. Although the District collects some pumping data, the lack of a complete database of historical extraction data and replenishment rates within the subbasin makes it difficult to estimate baseline conditions regarding water supply availability. This is a common problem in the San Joaquin Valley as the majority of water usage is associated with individual agricultural water users with a lack of consistent groundwater monitoring and reporting programs. However, with the development of the groundwater sustainability plans discussed below, additional data are being developed. Where data are not available to make quantitative estimates of water availability and reliability, reasonable assumptions were made based on available information and data.

Subbasin Characteristics

The Tulare Lake Hydrologic Region covers approximately 17,000 square miles including all of Kings and Tulare counties, and most of Fresno and Kern counties. Significant geographic features include the Temblor Range to the west, the Tehachapi Mountains to the south and the southern Sierra Nevada to the east. The Kings, Kaweah, Tule, and Kern Rivers drain the southern portion of the valley internally towards the Tulare drainage basin.

Table 4. Westlands Water District Water Supplies

Water Year	CVP Allocation %	Net CVP (AF)	Ground-water (AF)	Water User Acquired (AF)	Additional District Supply (AF)	Total Supply (AF)	Fallowed Acres
1988	100%	1,150,000	160,000	7,657	97,712	1,415,369	45,632
1989	100%	1,035,369	175,000	20,530	99,549	1,330,448	64,579
1990	50%	625,196	300,000	18,502	-2,223	941,475	52,544
1991	27%	229,666	600,000	22,943	77,399	930,008	125,082
1992	27%	208,668	600,000	42,623	100,861	952,152	112,718
1993	54%	682,833	225,000	152,520	82,511	1,142,864	90,413
1994	43%	458,281	325,000	56,541	108,083	947,905	75,732
1995	100%	1,021,719	150,000	57,840	121,747	1,351,306	43,528
1996	95%	994,935	50,000	92,953	172,609	1,310,497	26,754
1997	90%	968,408	30,000	94,908	261,085	1,354,401	35,554
1998	100%	945,115	15,000	54,205	162,684	1,177,004	33,481
1999	70%	806,040	60,000	178,632	111,144	1,155,816	37,206
2000	65%	695,693	225,000	198,294	133,314	1,252,301	46,748
2001	49%	611,267	215,000	75,592	135,039	1,036,898	73,802
2002	70%	776,526	205,000	106,043	64,040	1,151,609	94,557
2003	75%	863,150	160,000	107,958	32,518	1,163,626	76,654
2004	70%	800,704	210,000	96,872	44,407	1,151,983	70,367
2005	85%	996,147	75,000	20,776	98,347	1,190,270	66,804
2006	100%	1,076,461	25,000	45,936	38,079	1,185,476	54,944
2007	50%	647,864	310,000	87,554	61,466	1,106,884	96,409
2008	40%	347,222	460,000	85,421	102,862	995,505	99,663
2009	10%	202,991	480,000	68,070	70,149	821,210	156,239
2010	45%	590,059	140,000	71,296	79,242	880,597	131,339
2011	80%	876,910	45,000	60,380	191,686	1,173,976	59,514
2012	40%	405,451	355,000	111,154	123,636	995,241	112,755
2013	20%	188,448	638,000	101,413	143,962	1,071,823	131,848
2014	0%	98,573	655,000	59,714	26,382	839,669	220,053
2015	0%	82,429	660,000	51,134	34,600	828,163	218,112
2016	5%	9,204	612,000	72,154	174,374	867,732	179,784
2017	100%	911,307	54,000	-50,009	174,490	1,089,788	146,275
2018	50%	580,050	328,000	42,338	55,872	1,006,260	148,320
2019	75%	827,317	89,000	37,985	53,433	1,007,735	158,103
2020	20%	259,540	493,000	66,436	78,780	897,756	190,972
2021	0%	99,928	636,000	63,822	20,595	820,345	211,920
2022*	0%	4,000	630,000	42,000	105,000	781,000	214,500

*Estimate

Table 4 (continued)
Definitions:
Water Year – March 1 to February 28 (29 Leap Year)
CVP Allocation – Final CVP water supply allocation (100% = 1,150,000 AF)+(Reassignment = 45,383 AF)
Net CVP – CVP Allocation adjusted for carry over and rescheduled losses
Groundwater – Total groundwater pumped
Water User Acquired – Private landowner water transfers
Additional District Supply – Surplus water, supplemental supplies, and other adjustments
Fallowed Acres – Agricultural land out of production
Source: WWD, November 2023a

The Westside Subbasin is primarily located in Fresno County, with a relatively small portion (approximately 80,000 acres) located in Kings County. The subbasin encompasses a surface area of approximately 622,215 acres (972 square miles) within the San Joaquin Valley (DWR, 2020). The Westside Subbasin is located between the Coast Range foothills on the west and the San Joaquin River drainage and Fresno Slough to the east. To the southwest is the Pleasant Valley Groundwater Subbasin, and to the west are Tertiary marine sediments of the Coast Ranges. To the north and northeast is the Delta-Mendota Groundwater Subbasin, and to the east and southeast are the Kings and Tulare Lake Groundwater subbasins, also subbasins of the San Joaquin Valley Basin.

The aquifer system comprising the Westside Subbasin consists of unconsolidated continental deposits of Tertiary and Quaternary age. These deposits form an unconfined to semi-confined upper aquifer and a confined lower aquifer. These aquifers are separated by an aquitard named the Corcoran Clay member of the Tulare Formation. The unconfined to semi-confined aquifer (upper zone) above the Corcoran Clay includes younger alluvium, older alluvium, and part of the Tulare Formation. These deposits consist of highly lenticular, poorly sorted clay, silt, and sand intercalated with occasional beds of well-sorted fine to medium grained sand. This clay layer ranges in thickness from 20 to 200 feet, underlies most of the District, and has extensive wells penetrating the clay which allows partial interaction between the zones (DWR, 2006). The depth to the top of the Corcoran Clay varies from approximately 500 feet to 850 feet (WWD, 2014). The confined aquifer (lower zone) consists of the lower part of the Tulare Formation and possibly the uppermost part of the San Joaquin Formation. This unit is composed of lenticular beds of silty clay, clay, silt, and sand interbedded with occasional strata of well-sorted sand. Brackish or saline water underlies the usable groundwater in the lower zone (DWR, 2006). Well yields are good with an average of 1,100 gallons per minute (gpm) and a maximum of 2,000 gpm (DWR, 2003a).

Flood basin deposits along the eastern portion of the subbasin have caused near surface soils to drain poorly thus restricting the downward movement of percolating water. This causes agriculturally applied water to build up as shallow water in the near surface zone. Areas prone to this buildup are often referred to as drainage problem areas (DWR, 2006).

Water quality in the lower water bearing zone varies. Typically, water quality varies with depth with poorer quality existing at the upper and lower limits of the aquifer and the optimum quality somewhere between. The upper limit of the aquifer is the base of the Corcoran Clay with the USGS identifying the lower limit as the base of the fresh groundwater. The quality of the groundwater below the base of fresh water can exceed 2,000 milligrams per liter (mg/L) total dissolved solids (TDS) which is too high for

irrigating crops; the subbasin averages 520 mg/L TDS. In addition to high TDS, this subbasin can also contain selenium and boron that may affect usability as irrigation water.

Groundwater Level Trends

As shown in Table 5, lower aquifer groundwater levels were generally at their lowest levels in the late 1960's prior to the importation of surface water. The CVP began delivering surface water to the San Luis Unit in 1967-68. Water levels gradually increased to a maximum in about 1987-88, falling briefly during the 1976-77 drought and again during the 1987-92 drought.

Table 5. Groundwater Use and Elevation Change in Westlands Water District

Crop[1] Year	Pumped AF	Elevation FT	Elevation Change FT	Crop Year	Pumped AF	Elevation FT	Elevation Change FT
1956	964,000	-65	-13	1986	145,000	71	8
1957	928,000	-56	9	1987	159,000	89	18
1958	884,000	-29	27	1988	160,000	64	-25
1959	912,000	-77	-48	1989	175,000	63	-1
1960	872,000	-81	-4	1990	300,000	9	-54
1961	824,000	-96	-15	1991	600,000	-32	-41
1962	920,000			1992	600,000	-62	-30
1963	883,000			1993	225,000	1	63
1964	913,000			1994	325,000	-51	-52
1965	822,000			1995	150,000	27	78
1966	924,000	-134		1996	50,000	49	22
1967	875,000	-156	-22	1997	30,000	63	14
1968	596,000	-135	21	1998	15,000	63	0
1969	592,000	-120	15	1999	20,000	65	2
1970	460,000	-100	20	2000	225,000	43	-22
1971	377,000	-93	7	2001	215,000	25	-18
1972		-54	39	2002	205,000	22	-3
1973		-37	17	2003	160,000	30	8
1974	96,000	-22	15	2004	210,000	24	-6
1975	111,000	-11	11	2005	75,000	56	32
1976	97,000	-2	9	2006	15,000	77	21
1977	472,000	-99	-97	2007	310,000	35	-42
1978	159,000	-4	95	2008	460,000	-11	-46
1979	140,000	-13	-9	2009	480,000	-31	-20
1980	106,000	4	17	2010	140,000	9	40
1981	99,000	11	7	2011	45,000	49	40
1982	105,000	32	21	2012[2]	355,000	1	-48
1983	31,000	56	24	2013	638,000	-58	-59
1984	73,000	61	5	2014	655,000	-76	-18
1985	228,000	63	2	2015	660,000	-120	-44

Source: WWD, 2016a.

[1] Crop year is from October 1 of previous year to September 30 of current year.

[2] Starting with 2012, groundwater pumped is for Water Year (March 1 through February 28)

In 1998, water levels recovered nearly to the 1987-88 levels after a series of wet years. Reductions in surface water availability along with increases in groundwater pumping resulted in groundwater levels declining by as much as 200 feet in the years between 2010 and 2015. These declines, largely occurring in the lower aquifer, resulted in increased subsidence in some areas of the subbasin, particularly along portions of the San Luis Canal (DWR, 2020).

Recharge is primarily from seepage of Coast Range streams along the west side of the subbasin (approximately 30,000 to 40,000 afy) and deep percolation of surface irrigation. Secondary recharge to the upper aquifer (approximately 20,000 to 30,000 afy) and lower aquifer (150,000 to 200,000 afy) occurs from areas to the east and northeast as subsurface flows. WWD estimated the average deep percolation between 1978 and 1996 was 244,000 afy and applied groundwater between 1978 and 1997 was 193,000 afy (DWR 2006; DWR 2020; WWD 2016).

Overdraft and the Groundwater Sustainability Plan

Westside Subbasin is considered by DWR to be a critically overdrafted subbasin. This designation was identified as a part of the Sustainable Groundwater Management Act of 2014 (SGMA) and Groundwater Sustainability Plan (GSP) process and was based on significant, on-going, and irreversible subsidence which was about 0.4 feet per year between 2007 and 2011 (DWR, 2015). Basins in critical overdraft were required to develop a GSP by January 31, 2020. As the primary water purveyor in the Westside Subbasin, Westlands Water District is the designated Groundwater Sustainability Agency (GSA) for the subbasin and developed the GSP. The GSP for the Westside Subbasin was adopted by the WWD Board of Directors January 8, 2020, resubmitted to DWR July 18, 2022, and approved by DWR August 4, 2023.

The purpose of the GSP is to characterize groundwater conditions in the subbasin, to evaluate and report on conditions of overdraft, to establish sustainability goals and sustainability management criteria, and to describe projects and management actions the GSA intends to implement to achieve sustainability by 2040 (DWR, 2020). The plans and progress toward meeting the sustainability goal - that the subbasin will be operated within its sustainable yield by 2040 and maintain sustainability through the entire planning and implementation horizon through 2070 - will be evaluated every five years. The resulting sustainable yield is discussed below and projects and management actions to achieve sustainability is discussed later in this chapter.

Aquifer's Ability to Recover

The reduction of CVP water and other surface supplies to the District over time has resulted in construction of many new wells by farmers to obtain water to make up for the shortfall. There were 605 wells constructed within the District between 2000 and 2015. The total number of operational wells within the District in 2014 was 792 and 124 non-operational wells. Most of the information provided here on District groundwater conditions was obtained from the District's 2015 Deep Groundwater Report (WWD, 2016) and 2012 Water Management Plan (WWD, 2013).

As presented in Table 5, prior to the delivery of CVP water into the District, the annual groundwater pumping ranged from 822,000 to 964,000 acre-feet during the period of 1953 to 1968. The majority of this pumping was from the aquifer below the Corcoran Clay causing the sub-Corcoran piezometric

groundwater surface to reach the lowest recorded average elevation of 156 feet below mean sea level in 1967. The U.S. Geological Survey concluded that extraction of large quantities of groundwater prior to CVP deliveries resulted in compaction of water bearing sediments and caused land subsidence ranging from 1 to 24 feet between 1926 and 1972.

After CVP water deliveries began in 1968, the groundwater surface rose steadily until reaching 89 feet above mean sea level in 1987, the highest average elevation on record dating back to the early 1940's. The only exception during this period was in 1977 when a drought and drastic reduction of CVP deliveries resulted in groundwater pumping of approximately 472,000 acre-feet and an accompanying drop in the groundwater surface elevation of approximately 97 feet.

During the early 1990's, groundwater pumping increased due to reduced CVP water supplies due to drought and regulatory actions. Groundwater pumping reached an estimated 600,000 acre-feet annually during 1991 and 1992 when the District received only 25 percent of its contractual entitlement of CVP water. This increased pumping caused the groundwater surface to decline to 62 feet below mean sea level, the lowest elevation since 1977. DWR estimated the amount of subsidence since 1983 to be almost two feet in some areas of the District, with most of that subsidence occurring since 1989.

Based on data presented in Table 4 and Table 5, during 2011 to 2015, CVP allocations averaged 27 percent (330,362 acre-feet), total groundwater pumped was 2,353,000 acre-feet, and the groundwater surface elevation decreased 129 feet. The CVP allocations for 2014 and 2015 water year were 0 percent for both years and with the accompanying increase in groundwater pumped (655,000 acre-feet and 660,000 acre-feet, respectively), the groundwater surface decreased 62 feet over the two-year period to an average elevation of 120 feet below mean sea level.

In the project vicinity, the depth to the top of the Corcoran Clay is approximately 650 to 700 feet. The elevation of the base of fresh groundwater is approximately -2200 feet mean sea level (WWD, 2015b).

Sustainable Yield

Sustainable yield is defined as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result". Using 2015 as baseline conditions, sustainable yield for the 2023 to 2045 projected period was determined and ensures this is a quantity of water that can be withdrawn annually from a groundwater supply without causing an undesirable result. The average of 305,000 afy was determined to be the sustainable yield of the Westside Subbasin prior to projects and management actions being implemented. The historical groundwater budget for the 1989 through 2015 budget period was 300,000 afy (DWR, 2020; WWD 2021). The GSP provides estimated projected sustainable yields based on average annual groundwater pumping, average annual change, and various scenarios of climate change. These projected sustainable yields are 269,000 afy under No Climate Change Scenario; 271,000 afy under 2030 Central Tendency Climate Scenario; and 294,000 afy under 2070 Central Tendency Climate Scenario (WWD, 2022).

The groundwater allocation program established under the GSP includes a "transition period" from 2022 to 2030, in which a uniform annual allocation cap is initially established at 1.3 acre-feet per acre (ac-

ft/ac) and then subsequently reduced each year starting in 2022 by 0.1 ac-ft/ac until 2030 when the allocation cap would reach 0.6 ac-ft/ac (WWD 2022).

WESTLANDS WATER DISTRICT SOLAR PROJECT SUPPLY AVAILABILITY

The District has indicated that the Daylight Legacy Solar Project is eligible to receive surface water deliveries to meet operational demands (WWD, 2023c)(see District letter in Appendix A). This is based on these lands determined to be eligible for allocation or delivery of water under Reclamation law and any applicable District Regulation as described in *Article 2, Regulations for the Allocation and Use of Agricultural Water within Westlands Water District*, as revised September 2023 (WWD, 2023d). In the event that the District cannot provide the project water supply, water can be obtained from the existing on-site agricultural well. Based on the long-term groundwater pumping limit of 0.6 afy/acre established under the GSP, the overall pumping limit at the 2,107 acre project site would be 1,264 afy, which would be more than sufficient to provide for operational water demands of 7.4 afy.

WATER MANAGEMENT AGENCIES AND ACTIVITIES

The majority of the Westside Subbasin is in Fresno County, extending south into Kings County. The Westside Subbasin is almost entirely within the District service area. The District's management activities and projects related to water conservation and the Groundwater Sustainability Plan activities and the Fresno Area Regional Groundwater Management Plan are summarized here.

Westlands Water District

The District funds education and technology, enabling growers to effectively utilize water allotments through efficiencies. The District surveys the static water levels in the wells and the water quality and quantity of pumped groundwater as part of its Water Management Plan. A key component of the District's Water Management Plan is water conservation. This program consists of the following elements.

- Irrigation Guide for water requirements per crop
- Water Conservation and Management Handbook
- Workshops and meeting on water management information
- Technical assistance and conservation computer programs
- Meter repair and updated program
- Groundwater monitoring
- Pump efficiency tests
- Conjunctive use of supplies
- Irrigation System Improvement Program
- Satellite imagery purchased about once every two weeks

Projects and management actions developed for the Groundwater Sustainability Plan are aimed at preventing and managing chronic lowering of groundwater levels, and significant and unreasonable reduction of groundwater storage, land subsidence, and degradation of groundwater quality.

Proposed projects and management actions were grouped into the following project categories and are described below. This information was obtained from the GSP.

1. Surface water imports
2. Initial allocation of groundwater extraction
3. Aquifer storage and recovery
4. Targeted pumping reductions (to reduce pumping near Check 16, 17, and 20)
5. Percolation basins

Surface Water Imports. The primary focus of the Surface Water Imports program is to increase surface water availability and reliability and to reduce the corresponding landowner reliance on groundwater within the Subbasin by fulfilling most of the agricultural, municipal, and industrial water demands within the Subbasin. Surface water deliveries will be obtained through existing CVP contracts and through water transfer and exchange projects. Increasing the supply of surface water will allow surface water to be used in lieu of groundwater leading to increased groundwater storage and levels. The increased delivery of surface water can further conjunctive use strategies.

Initial Allocation of Groundwater Extraction. The GSA has prepared a groundwater allocation framework to manage demand by equally distributing the total annual pumping from the subbasin on the basis of land acreage overlying the subbasin. The groundwater allocation program includes a "transition period" from 2022 to 2030, in which a uniform annual allocation was initially established at 1.3 ac-ft/ac and then subsequently reduced each year by 0.1 ac-ft/ac until 2030 when the allocation would reach 0.6 ac-ft/ac. The groundwater will be distributed based on per-acre land ownership for all qualifying lands.

Every overlying landowner will have equal access to available groundwater subject to the sustainability requirements of the GSP and the avoidance of undesirable results. The distribution will ensure there are no long-term imbalances in the subbasin water budget, there is increased pumping transparency, and more flexibility to water users for resource management that provides benefits not traditionally available, e.g., banking of unused water, exchanges.

Although the project is planned to be constructed in 2025-26 under an allocation of 1.0 to 1.1 af/ac/yr, this WSA utilized the 2030 goal of 0.6 af/ac/yr as its available supply for 12 months of construction activities.

Aquifer Storage and Recovery. An aquifer storage and recovery program (ASR) involving the direct injection and subsurface storage of groundwater using agricultural wells has been proposed by the GSA to improve water supply reliability within the subbasin. Landowners will voluntarily adopt the program in order to have the recharged water contribute to the landowner's groundwater allocation.

Targeted Pumping Reductions. It is possible that the combination of other measures will not be sufficient individually or collectively to avoid significant and unreasonable land subsidence. When combined with cumulative subbasin pumping, groundwater withdrawals near Checks 16, 17, and 20 of the San Luis Canal/California Aqueduct, may require focused management efforts. Consequently, the GSP proposes to offer or, if necessary to avoid significant and unreasonable land subsidence, to require

surface water substitution to reduce groundwater pumping near the canal. In exchange for the reduction in pumping, the GSA may provide incentives to landowners included in this program. Participating landowners may be required to bear material unmitigated impacts in accepting the substitute surface water.

Percolation Basins. The GSA is proposing engaging in managed aquifer recharge through percolation basins in selected areas of the subbasin to increase groundwater in storage. These basins would be constructed on GSA-owned land where the Corcoran Clay is not present. The basins would be used to store available water and recharge the upper and lower aquifer. The GSA is currently investigating the feasibility of this project at potential sites located in the subbasin (DWR, 2020).

Fresno Area Regional Groundwater Management Plan

The Fresno County Groundwater Management Plan was updated in 2006. Although the Fresno study area is primarily within the Kings Subbasin which does not extend to the Daylight Legacy Solar Project site, its activities will improve the management of the Westside Subbasin and it demonstrates active efforts towards increased supply reliability in the region. The regional groundwater management group of nine agencies and one private water company that prepared the plan is implementing activities to improve water resources management and reporting. Activities include: groundwater level monitoring, groundwater quality monitoring, land surface subsidence monitoring, and surface water monitoring on an ongoing basis. These agencies are constantly making improvements to improve groundwater recharge, increase water conservation and education savings, pursue groundwater banking, increase recycled water usage to reduce potable consumption, and other activities (Fresno, 2017).

WATER SUPPLY RELIABILITY

SB 610 requires the consideration of supply availability under varying climatic conditions including normal water years and dry years. Reasonable assumptions can be made regarding availability and reliability under normal year and dry year scenarios based on available data and information for the project.

During single and multiple dry years when less CVP contract water is available, the District relies more on local groundwater resources, resulting in a temporary drawdown of the aquifer. As demonstrated, historically the basin generally recovers from these times of increased pumping when surface water availability is restored; however, there is some concern regarding subsidence reducing the overall capacity of the aquifer, particularly on the west side of the subbasin.

The GSP determined that the allocation of groundwater extraction goal of 0.6 af/ac/yr is to be gradually obtained by year 2030 (DWR, 2020). This more conservative number was used as the available supply for the analysis of supplies and demands. The temporary groundwater supply required for construction of the Daylight Legacy Solar Project will be provided from the existing on-site agricultural well or another well located in the vicinity.

For construction of solar projects, groundwater in this unadjudicated basin is considered available and reliable under normal water years, a single dry water year, and multiple dry years, as shown in Table 6. Daylight Legacy Solar Project's temporary demands are 319 afy (during the 12 month construction

period). Compared with the estimated 2,100 to 5,300 afy of water historically applied at the project site for agricultural irrigation, the temporary application of 319 afy for dust control during project construction would represent a far less intensive use of water supplies compared to pre-development conditions. Based on the information provided in this WSA, the annual water demand of 319 afy during construction on 2,107 acres (or 0.15 af/ac/yr) is significantly less than the available groundwater supply of 0.6 af/ac/yr and is not expected to result in adverse water supply reliability impacts.

Table 6. Daylight Legacy Solar Project Supplies and Demands (afy)

	2025	2030	2035	2040	2045	2050
Normal Year Construction						
Groundwater Supply [1]	1,264	0	0	0	0	0
WWD Supply	0	0	0	0	0	0
Construction Demand [2]	*319*	*0*	*0*	*0*	*0*	*0*
Normal Year Operations						
Groundwater Supply	0	0	0	0	0	0
WWD Supply [3]	0	7.4	7.4	7.4	7.4	7.4
Operations Demand [4]	0	*7.4*	*7.4*	*7.4*	*7.4*	*7.4*
Single Dry Year Construction						
Groundwater Supply [1]	1,264	0	0	0	0	0
WWD Supply	0	0	0	0	0	0
Construction Demand [2]	*319*	*0*	*0*	*0*	*0*	*0*
Single Dry Year Operations						
Groundwater Supply	0	0	0	0	0	0
WWD Supply [3]	0	7.4	7.4	7.4	7.4	7.4
Operations Demand [4]	*0*	*7.4*	*7.4*	*7.4*	*7.4*	*7.4*
Multiple Dry Year Construction (Year 1, 2, 3)						
Groundwater Supply [1]	1,264	0	0	0	0	0
WWD Supply	0	0	0	0	0	0
Construction Demand [2]	*319*	*0*	*0*	*0*	*0*	*0*
Multiple Dry Year Operations (Year 1, 2, 3)						
Groundwater Supply	0	0	0	0	0	0
WWD Supply [3]	0	7.4	7.4	7.4	7.4	7.4
Operations Demand [4]	*0*	*7.4*	*7.4*	*7.4*	*7.4*	*7.4*

[1] The GSP sustainable yield of 0.6 af/ac/yr (on 2,107 acres=1,264 afy) of groundwater is assumed available at the Daylight Legacy Solar Project site to meet temporary construction demands. Construction supply is available from local agricultural well(s).

[2] From Table 2.

[3] The Daylight Legacy Solar Project is eligible to receive the volume of water needed for operations under Article 2 of WWD's Rules and Regulations.

[4] From Table 3.

The amount of CVP contract water received by the District during any given year varies depending on climatic and hydrologic conditions, Delta constraints, and other factors. The District augments the contract water with transfers and other purchased supplies, and growers augment surface supplies through increased groundwater pumpage. During operation of the project, the long term water demand of 7.4 afy for operational uses such as panel cleaning, sheep watering, and ongoing operations would be met using water provided by WWD.

WWD manages its supplies for long term supply reliability. It augments CVP contract water with local and purchased surface waters, which are supplemented by groundwater pumping by growers, as presented in Table 4, and WWD encourages the fallowing of lands during shortages. If for some reason District surface water supplies are not available to meet Daylight Legacy Solar Project operational demands, groundwater would be pumped from the existing on-site agricultural well or from another agricultural well in the vicinity and trucked to the site for panel washing. Based on the information provided in this WSA, WWD water supplies (surface and or groundwater) to meet the operational demand of 7.4 afy and groundwater supplies to meet a temporary construction demand of 319 afy for one year of construction under normal water years, a single dry water year, and multiple dry years, are considered available and reliable, as shown in Table 6.

In summary, sufficient water supply is available to meet Daylight Legacy Solar Project construction and operational demands under normal, dry, and multiple dry year climatic conditions. As presented in this WSA, the project water demands will result in significantly less groundwater pumping of the Westside Subbasin during construction, and minimal to no groundwater pumping during solar facility operations after full buildout.

OTHER PLANNED SOLAR PROJECTS

Other planned uses in the Westside Subbasin consist almost entirely of other solar PV generation facilities in Kings and Fresno Counties. As of December 2023, a total of 39 other solar projects have been approved or are pending approval in the Westside Subbasin portions of the two counties. Of these, 19 solar projects were completed, four are currently under construction, another 11 solar projects were approved, and five projects are pending approval by the counties. The total land area covered by the other constructed, approved, and pending projects is approximately 41,360 acres, with a total generating capacity of 5,163 MW (B. Verrips, 2023). Based on an average construction water demand rate of 0.15 acre-feet/acre (Table 2), these other projects would consume a total of 6,204 acre-feet during construction.

It is assumed that all construction water would be obtained from local groundwater sources within the subbasin, and it is expected that construction of 0.15 ac-ft/ac would not exceed the groundwater basin long-term sustainable yield of 0.6 af/ac/yr. Upon completion, operational water demands for Daylight Legacy Solar Project would be approximately 0.0035 af/ac/yr. For purposes of this discussion, it is assumed that operational water for the other solar projects would be obtained from groundwater sources within the subbasin, while some projects would rely on surface water imported through WWD. These operational water demands would be well below the estimated sustainable yield for the groundwater basin.

In summary, neither the short-term construction of the other planned projects within the subbasin, nor the long-term operational water demands from each project, would be likely to exceed the long-term sustainable yield of the groundwater basin. Therefore, the construction and operational water demands for the other planned projects in the subbasin could be met from existing groundwater sources without contributing to overdraft of the subbasin.

CHAPTER 4 – CONCLUSIONS

SUFFICIENCY FINDINGS

A lack of specific data for project site groundwater usage and replenishment rates (e.g., a water budget) makes it difficult to quantify baseline conditions regarding groundwater supply availability for construction demands. However, an analysis of the ability of the groundwater basin (based on District subbasin data) to meet projected temporary construction water demands of the Daylight Legacy Solar Project was based on other factors. The primary consideration is that solar projects have rights to a reasonable use of groundwater supply from the groundwater basin they overlie and that the project construction demands of 319 AFY for one year are substantially less than the sustainable groundwater yield on a per acre basis for the District per the GSP.

The WWD CVP allocation is only about 50 percent reliable on average, but this supply is augmented with other sources, particularly during dry years. The groundwater basin available to individual landowners within WWD is in critical overdraft. However, a reduction in agricultural water demands due to completed and planned solar projects, including the Daylight Legacy Solar Project, will result in increased water supply reliability for other agricultural users within the District.

With consideration of these variables and conditions, it is concluded that groundwater supplies from the Westside Subbasin will meet construction demands for Daylight Legacy Solar Project during the 12 month construction period, in addition to the demand of existing and other planned future solar projects in the subbasin. District water supplies will meet projected operational water demands for Daylight Legacy Solar Project over a 20 year planning horizon, in addition to the demand of existing and other planned future uses. No supply deficiencies are expected in normal, dry, and multiple dry years for the proposed project. This WSA was prepared in compliance with the California Water Code, as amended by SB 610.

REFERENCES

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_____2023b. *Draft 2023 Westlands Water District Water Management Plan*. Prepared by Kori Peterson.

_____ 2023c. *Comments Regarding Conditional Use Permit (CUP) No. 23-03 (Westland Daylight Legacy Solar Project)*. August 24, 2023. (Attached as Appendix A.)

_____2023d. *Rules and Regulations – Article 2: Regulations for the Groundwater Allocation Program and Use of Groundwater within the Westside Subbasin*. Revised September 19, 2023.

_____2022a. *Rules and Regulations – Article 1: Regulations for the Groundwater Allocation Program and Use of Groundwater within the Westside Subbasin*. Revised December 20, 2022.

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Appendix A - Letter from Westlands Water District Regarding CUP No.23-03

Westlands Water District
3130 N. Fresno Street, P.O. Box 6056, Fresno, California 93703-6056, (559) 224-1523, FAX: (559) 241-6277

August 24, 2023

Noelle Tomlinson, Planner
Planning Division
Kings County Community Development Agency
1400 W. Lacey Blvd., Engineering Building #6
Hanford, CA 93230

SUBJECT: Comments Regarding Conditional Use Permit (CUP) No. 23-03
(Westlands Daylight Legacy Solar Project)

Dear Ms. Tomlinson,

Westlands Water District (District) reviewed CUP No. 23-03 the proposal to construct solar photovoltaic power plant including an electrical substation, a battery storage facility, an Operations & Maintenance (O&M) facility, telecommunication facilities, and a meteorological data collection system on Assessor Parcel Numbers (APN) 026-010-028, 026-300-004, 026-300-031, 026-300-032, 026-300-033, 026-300-043, 026-300-044, 026-320-002, and 026-320-003. The District offers the following comments.

The project lies within the District boundary and the land is eligible to receive an allocation of water from the District's agricultural water service contract. The description indicates that the project will be temporary in nature, will be decommissioned after the useful life and the land will be returned to a condition that is suitable for agricultural use, as reflected in the Decommissioning and Soil Reclamation Plan. Based on these factors, the project parcels may be eligible to continue to receive agricultural water supply benefits from the District, provided the additional requirements of the District's Article 2, and the Appendix A thereto, are met. If the project parcels continue to receive agricultural water supply benefits under this provision, the project's water needs may be met from the annual agricultural supply, in lieu of the District's Municipal and Industrial (M&I) water supply (discussed below).

If the project parcels are determined to not be Eligible Cropland under the Districts' Article 2, the Applicant may be eligible to apply for and receive M&I water services, and the land will continue to have access to the District's distribution system. The District's distribution system Laterals 32 and 33 provide water service to the parcels.

If the Applicant applies to become a new M&I water user, the Applicant's operations will be bound by the Regulations, Terms and Conditions established by the District for M&I use. Copies of these are provided for your information, and notable provisions include:

- The Regulations stipulate the quantity of water that will be made available to a water user from the District's Central Valley Project (CVP) contract supply. The District will make available up to five (5) acre-feet per 160 acres

annually for solar development operations. The Applicant is responsible for acquiring more water if needed.

- The Applicant must comply with the District's Backflow Prevention guidelines for this connection to the District's water system.

- Based on the Site Location Map provided, the project site is located near the District's distribution system Laterals 32 and 33. Prior to construction, please contact Underground Service Alert (811).

- If project features, including electrical transmission facilities, may cross over the District's distribution system laterals, please contact the District to obtain the requirements for crossing a District pipeline easement(s).

The Applicant should implement rodent control and implement best management practices to remove weeds on the aforementioned parcels to avoid creating a potential habitat for rodents and a nuisance to neighboring farming operations.

Thank you for the opportunity to comment on this project. If you have any additional questions, please contact Kori Peterson at 559-241-6231.

Sincerely,

Russ Freeman

Russ Freeman, P.E.
Deputy General Manager of Resources

APPENDIX D-1

Phase I Environmental Site Assessment

Prepared by

Moore Twining Associates

November 2023

MOORE TWINING ASSOCIATES, INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD AND LAUREL AVENUE
STRATFORD, CALIFORNIA 93266

Prepared For:
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: C64411.05

August 28, 2023
REVISED: November 6, 2023

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
1.0 INTRODUCTION 1
1.1 Objective 1
1.2 Scope of Services 1
1.3 Limitations and Limited Conditions 2
2.0 SUBJECT PROPERTY DESCRIPTION 3
2.1 Location and Description of the Subject Property 3
2.2 Physical and Environmental Setting of the Subject Property 3
3.0 SUBJECT PROPERTY RECONNAISSANCE 5
3.1 Subject Property Reconnaissance - Description of Structures, Roads, and Other Property Improvements 6
3.2 Current Uses of the Subject Property 6
3.3 Current Uses of the Adjoining Properties 6
3.4 Subject Property Reconnaissance - Specific Indicators of Environmental Conditions 6
4.0 HISTORICAL LAND USE 8
4.1 Aerial Photograph Review 8
4.2 Topographic Map Review 9
4.3 Sanborn Fire Insurance Map Review 9
4.4 Historical City Directory Review 9
4.5 Title Documentation 10
4.6 Institutional and Engineering Controls/Land Use Limitations/Environmental Liens 10
4.7 Summary of Past Uses of the Subject Property 10
4.8 Summary of Past Uses of Adjoining Properties 10
5.0 USER PROVIDED INFORMATION 10
5.1 User Provided Information 10
5.2 Environmental Questionnaires 11
5.3 Interviews 11
5.4 Previous Investigations 11
6.0 REGULATORY RECORDS REVIEW 11
6.1 Agency File Review 11
6.2 Environmental Database Review 12
6.2.1 On-Subject Property 13
6.2.2 Off-Subject Property 14
6.2.3 Orphan Properties 15
7.0 SUMMARY OF FINDINGS AND OPINIONS 15
7.1 Subject Property 15
7.2 Off-Subject Property 16
7.3 Data Gaps, Limitations, and Deviations 16
8.0 CONCLUSIONS 17
9.0 CLOSING 19
10.0 REFERENCES 20
11.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS 21

LIST OF DRAWINGS AND APPENDICES

DRAWINGS

Drawing 1 – Property Location Map
Drawing 2 – Site Plan
Drawing 3 – Site Plan with Index Quadrants for Historical Aerials

APPENDICES

Appendix A – Drawings
Appendix B – Property Reconnaissance Photographs
Appendix C – Regulatory Agency Documentation
Appendix D – EDR Report
Appendix E – Documents Provided by Client

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPOSED DAYLIGHT LEGACY SOLAR PROJECT
Avenal Cutoff Road and Laurel Avenue
Stratford, California 93266

EXECUTIVE SUMMARY

Moore Twining Associates, Inc. (Moore Twining) was retained by Environmental Consulting Services(ECS) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for a property located at the Avenal Cutoff Road and Laurel Avenue in Stratford, California (Subject Property). This Phase I ESA was conducted in 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 November 2021 and adopted February 13, 2023.

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 Subject Property history and conditions. Please review the entire report for more information regarding Moore Twining's findings and opinions.

Subject Property

The Subject Property comprises approximately 2,107 acres of agricultural and undeveloped land. The Subject Property is located at the intersection of Avenal Cutoff Road and Laurel Avenue, in the city of Stratford, Kings County, California. The Subject Property has been assigned the following Kings County Assessor's Parcel Numbers (APNs): 026-010-028-000, 026-300-031-000, 026-300-032-000, 026-300-043-000, 026-300-044-000, 026-300-033-000, 026-320-002-000, 026-320-003-000, 026-010-027-000, 026-010-035-000, 026-010-043-000, 026-010-009-000, and 024-260-033-000.

At the time of the Subject Property reconnaissance, the Subject Property was primarily being used for agricultural purposes, with some areas consisting of vacant/undeveloped land. Multiple irrigation wells and fertigation systems, including pumps and fertilizer tanks, were observed throughout the Subject Property for fertilization of the crops. A fertigation system along the western edge of the Subject Property also had two (2) ASTs associated with it; one of the ASTs contained sulfuric acid and the other contained chlorine.

Based on Moore Twining's review of historical aerial photographs, topographic maps, and city directories, the Subject Property has historically been used for agricultural purposes since the 1950's.

Off-Subject Property

Based on Moore Twining's review of historical aerial photographs, topographic maps and city directories, the Subject Property vicinity has primarily been agricultural since the 1950's. Since the 1950's, numerous small outbuildings have been present to the west-southwest of the Subject Property.

At the time of the Subject Property reconnaissance, the Subject Property was bordered to the north, south, east and west by agricultural land. Avenal Cutoff Road runs along the western edge of the Subject Property.

Conclusion Summary

On behalf of Environmental Consulting Services, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for a Daylight Legacy Solar Project located at Avenal Cutoff Road and Laurel Avenue in Stratford, California. This assessment has revealed the following:

Recognized Environmental Conditions

No RECS have been identified during the course of this assessment.

Controlled Recognized Environmental Condition

No CRECs have been identified during the course of this assessment.

Historical Recognized Environmental Condition

No HRECs have been identified during the course of this assessment.

Proposed Additional Investigations

The legal application of agricultural chemicals is not considered a REC by the Comprehensive Environmental Response, Compensation and Liability (CERCLA) act of 1980. The exemption is noted in *(4) Application of Pesticides*—Section 107(i) of the ASTM E1527-21 standard. However, a clause is noted in the exemption stating, "The pesticide exemption also contains a "savings clause" that provides that the cost recovery prohibition does not alter or modify any obligations or liability under any other federal or state law for damages, injury or loss resulting from a release of hazardous substances, or for the costs of removal or remedial actions of such hazardous substances." It has been Moore Twining's experience that pesticides are persistent and can exist in soils long-term after use of agricultural chemicals. From the historical documents researched, no information was discovered that would indicate illegal agricultural activities occurred at the Subject Property. As the Subject Property has been used since the 1950's for agricultural purposes, the potential exists that persistent pesticides and other related agricultural chemicals may be present in the soils at the Subject Property. These constituents, even in low concentrations, can result in federal, state and local requirements for excavation, movement, disposal, assessment, and remediation. If present, costs could be incurred to address these conditions. Therefore, it is recommended that a systematic soil sampling and analysis program be conducted on the Subject Property to determine whether residual pesticides are present in the soil at concentrations exceeding the published human health screening levels. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

In addition to the pesticides, one of the fertigation systems utilizes sulfuric acid and chlorine. It is unknown how long these chemicals have been used on the Subject Property, but the potential exists for the chemicals to have been released to the subsurface during filling activities or leaks to have occurred around openings/connections to the fertigation system. The presence of sulfuric acid or chlorine could result in increased disposal fees and increased costs for remediations depending upon the concentrations of sulfuric acid and/or chlorine in soils at the Subject Property. Therefore, it is recommended that a soil sampling and analysis program be conducted in the vicinity of the sulfuric acid and chlorine ASTs on the Subject Property to determine whether sulfuric acid or chlorine are present in the soil at concentrations exceeding the published human health screening levels. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

According to a review of historical aerial photographs and topographic maps, Avenal Cutoff Road has bordered the western edge of the Subject Property since at least the 1940s. There is a risk that soil along either side of the road has been contaminated by aerially deposited lead (ADL) generated by automobile traffic, prior to leaded gasoline being banned in California in 1992. The presence of lead in the soil could result in increased disposal fees, and costs for assessment and remediation depending on the concentration of lead in soils at the Subject Property. Therefore, it is recommended that soils along the Subject Property frontage road adjacent to Avenal Cutoff Road be sampled and analyzed for the presence of lead. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

A small airstrip was identified in the EDR report, and can be observed on an adjacent property to the west, since the 1950s. The listing in the EDR report indicated that 30 gallons or more worth of empty pesticide containers were observed during a 'site screening'. The facility was given a 'low priority preliminary assessment' recommendation, and referred to another agency. No additional information was available. The airstrip is approximately 900 feet west and up-gradient of the Subject Property. If repeated/substantial spills of pesticides has occurred at the airstrip, the pesticides could have migrated to the water table and eventually migrated down-gradient to the Subject Property. Due to the close proximity to the Subject Property, the potential exists for contamination to have impacted the subsurface of the Subject Property.

Subsurface water distribution pipelines, owned and operated by Westlands Water District (WWD) traverse the Subject Property. Some segments of the on-Subject Property pipelines have been reported as asbestos containing. It should be noted that it was historically common for subsurface irrigation pipelines to contain asbestos (i.e., Transite pipe). Reportedly, these pipelines are contained in exclusive easements and would be avoided by the proposed project. In places where project conduit or internal driveways would need to cross the WWD easements, the construction contractor is required to follow WWD improvement standards and procedures for designing and building around the buried pipelines. Reportedly, this will reduce the potential that no asbestos-containing pipelines will be disturbed during project construction and operation. Therefore, no further investigation or action is recommended with respect to potential health hazards associated with asbestos-containing materials on the Subject Property. However, in the event that subsurface pipelines are encountered during future development or excavation on the Subject Property, care should be exercised in determining whether or not these

pipelines contain asbestos. If they contain asbestos, they should be removed, handled, transported, and disposed of in accordance with applicable local, county, state and federal regulations.

1.0 INTRODUCTION

Moore Twining Associates, Inc. (Moore Twining) was retained by Environmental Consulting Services (ECS) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for a property located at the intersection of Avenal Cutoff Road and Laurel Avenue in Stratford, California (Subject Property). This Phase I ESA was conducted in 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 November 2021 and adopted February 13, 2023.

1.1 Objective

The objective of this assessment was to identify Recognized Environmental Conditions (RECs) located at the Subject Property 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:

- *Recognized Environmental Conditions (RECs) - the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat of a future release to the environment*.
- *Controlled Recognized Environmental Conditions (CRECs) – recognized environmental condition affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).*
- *Historical Recognized Environmental Conditions (HRECs) – a previous release of hazardous substances or petroleum products affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the Subject Property to any controls (for example, activity and use limitations or other property use limitations).*

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 Subject Property or at nearby properties. The assessment included a Subject Property 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 Subject Property since 1932;

- A Subject Property reconnaissance to assess evidence of current and/or past use or storage of toxic or hazardous material; on-Subject Property 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 Property;

- 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 Subject Property area. Using area-profile services provided by Environmental Data Resources, Inc. (EDR), Moore Twining cataloged properties near the Subject Property 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 Subject Property that may pose an environmental impairment to the Subject Property. No assessment is thorough enough to identify all potential environmental impairments at a given Subject Property. 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 Subject Property, 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 Subject Property 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 Subject Property 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 Subject Property due to time lapse, natural causes, or operations adjacent to the Subject Property 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

reconnaissance of the Subject Property 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 SUBJECT PROPERTY DESCRIPTION

Information concerning the Subject Property was obtained from a Subject Property reconnaissance and a review of the documents referenced in Sections 4.0, 5.0 and 6.0 of this report. This information is summarized in the following sections.

2.1 Location and Description of the Subject Property

The Subject Property comprises approximately 2,107 acres of agricultural and undeveloped land. The Subject Property is located at the intersection of Avenal Cutoff Road and Laurel Avenue, in the city of Stratford, Kings County, California. The Subject Property has been assigned the following Kings County Assessor's Parcel Numbers (APNs): 026-010-028-000, 026-300-031-000, 026-300-032-000, 026-300-043-000, 026-300-044-000, 026-300-033-000, 026-320-002-000, 026-320-003-000, 026-010-027-000, 026-010-035-000, 026-010-043-000, 026-010-009-000, and 024-260-033-000.

The listed owner for the Subject Property is:

Esajian Land Company/Esajian Farming Company/Mark T Shannon/Janice K Allen/William W Sheely/Ross A Sheely/SFF II

A Subject Property location map is presented as Drawing 1, and a Site plan, which includes property boundaries, is presented as Drawing 2 in Appendix A.

2.2 Physical and Environmental Setting of the Subject Property

Environmental characteristics including topography, geology, soil, and hydrogeology were evaluated based on Subject Property observations, and review of published literature and maps. The findings are summarized in the following table.

PHYSICAL SETTING INFORMATION FOR THE SUBJECT PROPERTY AND SURROUNDING AREA		SOURCE
Location	Stratford, California	EDR Report, July 11, 2023
Property Elevation	The Subject Property elevation is approximately 235 feet above mean sea level.	
Topographic Gradient	Generally sloping toward the easterly.	
Closest Surface Water	A reservoir is located approximately ½ to 1 mile to the east-southeast of the Subject Property.	
Flood Plains[1]	According to FEMA DFIRM Flood Data provided by EDR, the Subject Property is not located within a Flood Hazard zone[1].	FEMA DFIRM Flood Data Map 06031C0300C
Wetlands	No wetlands were reported on the Subject Property[2].	National Wetlands Inventory https://www.fws.gov/wetlands/data/mapper.html
General Soil Characteristics		
Soil Type	Lethent- Clay Loam	United States Department of Agriculture, Soil Survey website; http://websoilsurvey.sc.egov.usda.gov
Description	Soils are clayey, partially hydric, moderately well drained, and have very slow infiltration rates.	
Area Specific Geology/Hydrogeology Characteristics		
Geology	The Subject Property 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 Subject Property and surrounding vicinity is characterized by a thick sequence of unconsolidated sediments from the Pleistocene epoch. Subsurface material beneath the Subject Property is primarily composed of alluvial fan deposits and flood plain over-bank	(Wagner, 2002) (California Geologic Survey, 2010)

[1] This is for general locational information only. The data presented should not be used for development purposes, as a comprehensive flood zone study has not been conducted.

[2] This is for general locational information only. The data presented should not be used for development purposes, as a comprehensive wetland study has not been conducted.

PHYSICAL SETTING INFORMATION FOR THE SUBJECT PROPERTY AND SURROUNDING AREA		SOURCE
	deposits including interbedded silts, sands, clays, and gravels.	
Hydrogeology	Groundwater elevation data for the Subject Property was not readily available. Review of facilities within a 5-6 mile radius of the Subject Property on GeoTracker had documented groundwater depths ranging from 6 feet below ground surface (bgs) to 10 feet bgs. The hydraulic gradient for the Subject Property is anticipated to be easterly based on regional topography.	GeoTracker
Oil and Gas Wells		
Current Oil and Gas Wells on Subject Property	No oil and/or gas wells were reported to be on the Property or on adjoining properties within 1,000 feet.	California Department of Conservation, Geologic Energy Management Division (CalGEM) web site https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx
Historical Oil and Gas Wells on Subject Property	One historical oil and/or gas wells were reported to be located on the Property or on adjoining properties within 1,000 feet. The identified well was advanced in August 1986, but was a 'dry hole', so it was plugged and abandoned in October 1986, per the Department of Conservation, Division of Oil and Gas *Report of Well Abandonment*, dated November 13, 1986. A copy of well completion and abandonment documents are included in Appendix C of this report.	California Department of Conservation, CalGEM web site http://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx

3.0 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 foot of practically accessible areas of the Subject Property and adjacent properties. A 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 of this report.

The Subject Property reconnaissance was conducted on July 17, 2023 by Ms. Sara Bloom, a representative of Moore Twining. Due to the size of the Subject Property, some areas were traversed and inspected on foot. Other areas were traversed and inspected by motor vehicle. Again, due to the size of the Subject

Property and current agricultural uses, not all areas of the Subject Property were traversable. Moore Twining made a reasonable effort to traverse accessible roadways/dirt pathways on the Subject Property.

3.1 Subject Property Reconnaissance - Description of Structures, Roads, and Other Property Improvements

At the time of the Subject Property reconnaissance, the Subject Property, was a mix of agricultural fields and undeveloped land. Dirt roads were present around the edge of most of the Subject Property parcels, and Avenal Cutoff Road was present along the western edge of the Subject Property. Laurel Avenue bisects the northern half of the Subject Property.

3.2 Current Uses of the Subject Property

At the time of the Subject Property reconnaissance, the Subject Property was primarily being used for agricultural purposes, with some areas consisting of vacant/undeveloped land. Multiple irrigation wells and fertigation systems, including pumps and fertilizer tanks, were observed throughout the Subject Property for fertilization of the crops. A fertigation system along the western edge of the Subject Property also had two (2) ASTs associated with it; one of the ASTs contained sulfuric acid and the other contained chlorine.

3.3 Current Uses of the Adjoining Properties

At the time of the Subject Property reconnaissance, the Subject Property was bordered to the north, south, east and west by agricultural land. Avenal Cutoff Road runs along the western edge of the Subject Property.

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 – N/A)	Elevators	N/A
	Air Compressors	N/A
	Incinerators	N/A
	Waste Treatment Systems	N/A
	Presses/Stamping Equipment	N/A
	Press Pits	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)	**Yes**
	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	**YES**
Exterior Observations	Stressed Vegetation	No
	Stained Soil or Pavement	No
	Pad or Pole-Mounted Transformers and/or Capacitors	**Yes**
	Soil Piles of Unknown Origin	No
	Exterior Dumpsters with Staining	No
	Hydraulic Box Crushers	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
	Storm Water Retention or Detention Ponds	No
	Pits, Ponds or Lagoons	No

Aboveground Storage Tanks (ASTs): At least four (4) ASTs were observed across the Subject Property. The ASTs were part of the in-line fertigation system used for fertilizing the crops. One fertigation system along the western edge of the Subject Property also had two ASTs, one containing sulfuric acid and one containing chlorine.

Pad or Pole-Mounted Transformers and/or Capacitors: At least five (5) pole-mounted transformers were observed around the Subject Property. No staining or leaking was observed from the transformers.

Pipeline Markers: Two 'high pressure gas pipeline' signs were observed along Laurel Avenue. No other signs were observed on the Subject Property.

Other Specific Indicators of Environmental Conditions

No other specific indicators of environmental conditions were observed on the Subject Property.

4.0 HISTORICAL LAND USE

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 of this report.

Due to the size of the Subject Property, the aerial photographs were broken into four sections by EDR: 1, 2, 3, and 4. Therefore, the aerial photographs are described by sections. Section 1 encompasses the northernmost portion of the Subject Property. Section 2 encompasses the central-western portion of the Subject Property. Section 3 encompasses the central-eastern portion of the Subject Property. The southern portion of the Subject Property was designated as Section 4. A map depicting the indexed quadrants is presented as Drawing 3 of this report.

Year	Summary of Photographs – Section 1 (North)
1937- 1950 (EDR)	The Subject Property and vicinity are vacant, undeveloped land. Avenal Cutoff Road is present to the south of the Subject Property.
1950 - 2020 (EDR)	The Subject Property and vicinity are now used for agricultural purposes (crops).

Year	Summary of Photographs – Section 2 (West)
1937- 1950 (EDR)	The Subject Property and vicinity are vacant, undeveloped land. Avenal Cutoff Road is present to the west/north of the Subject Property.
1950 - 1960 (EDR)	The Subject Property and vicinity are now used for agricultural purposes (crops). In the southwest of the Subject Property, across Avenal Cutoff Road, approximately 10 (ten) small outhouse-type structures are present, along with two larger rectangular structures.
1974 – 1976 (EDR)	No changes to the Subject Property or vicinity were noted, with the exception of to the west, where the smaller outhouse-type structures have increased to 17 structures.
1984 (EDR)	On the southwest edge of the Subject Property, a small clearing is present, likely for the oil well that was drilled; however, due to the scale/quality of the aerial photograph, it can not be confirmed. No other significant changes were noted to the Subject Property or vicinity.
1994 – 2020 (EDR)	No changes to the Subject Property were noted. To the west of the Subject Property, on the south side of Avenal Cutoff Road, a new, rectangular structure is present. No other significant changes to the vicinity were noted.

Year	Summary of Photographs – Section 3 (East)
1937- 1950 (EDR)	The Subject Property and vicinity are vacant, undeveloped land. Avenal Cutoff Road is present to the north-northwest of the Subject Property.
1950 - 2009 (EDR)	The Subject Property and vicinity are now used for agricultural purposes (crops).
2012 – 2016 (EDR)	No significant changes to the Subject Property or vicinity were noted, with the exception to the east of the Subject Property, two rectangular structures are present (off-Subject Property).
2020 (EDR)	No significant changes to the Subject Property were noted, except that the two rectangular structures to the east are no longer present.

Year	Summary of Photographs – Section 4 (South)
1937- 1950 (EDR)	The Subject Property and vicinity are vacant, undeveloped land. Avenal Cutoff Road is present to the north of the Subject Property.
1950 - 2020 (EDR)	The Subject Property and vicinity are now used for agricultural purposes (crops).

4.2 Topographic Map Review

Available topographic maps of the Subject Property and vicinity for the years 1929, 1940, 1943, 1956, 1981, 2012, 2015, and 2018 were reviewed for indications of past uses and/or 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 of this report.

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. Copies of the Certified Sanborn Maps Report are included in Appendix D of this report.

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 for this assessment was provided by EDR. A copy of the historical city directories is included in Appendix D of this report.

Subject Property

The Subject Property was not identified in the City Directory report from EDR.

Off-Subject Property

Off-Subject Property listings were primarily residential, but the Empire Irrigation District was noted approximately 4 miles to the east and a dairy farm was also identified over 4 miles away to the east as well.

A review of available directory listings did not identify any environmental concerns associated with past historical activities on the Subject Property or vicinity.

4.5 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.

A title search was not completed as part of this Phase I ESA, nor was Moore Twining provided with title search documents to include in this report. The lack of title documents is considered a data gap.

4.6 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 Property.

An Environmental Lien or Land Use Limitation search was not conducted as part of this Phase I ESA, nor was Moore Twining provided with any Environmental Lien or Land Limitation documents. The lack of an Environmental Lien/Land Use Limitation search is considered a data gap.

4.7 Summary of Past Uses of the Subject Property

Based on Moore Twining's review of historical aerial photographs, topographic maps, and city directories, the Subject Property has historically been used for agricultural purposes since the 1950's.

4.8 Summary of Past Uses of Adjoining Properties

Based on Moore Twining's review of historical aerial photographs, topographic maps and city directories, the Subject Property vicinity has primarily been agricultural since the 1950's. Since the 1950's, numerous small outbuildings have been present to the west-southwest of the Subject Property.

5.0 USER PROVIDED INFORMATION

5.1 User Provided Information

This section summarizes information provided by the user that assisted in the identification of potential RECs associated with the Subject Property.

5.2 Environmental Questionnaires

Moore Twining submitted an Environmental Questionnaire to Mr. Bert Verrips, a representative of ECS. Mr. Verrips was not aware of any environmental issues with the Subject Property.

The questionnaire is included in Appendix E of this report.

5.3 Interviews

Moore Twining conducted a telephone interview with Mr. Bert Verrips, a representative of ECS, on August 17, 2023. During this telephone interview, Mr. Verrips was able to provide additional information regarding the potential for asbestos piping to exist on the Subject Property. Per Mr. Verrips communications with Westlands Water District staff, there is a mixture of asbestos and non-asbestos containing water distribution pipelines on the Subject Property.

5.4 Previous Investigations

Moore Twining was not provided with any historical reports for the Subject Property, and none were located during the course of this assessment.

6.0 REGULATORY RECORDS REVIEW

Available federal, state and relevant county and municipal records for the Subject Property and pertinent properties within the Subject Property vicinity that have or potentially have had a release to the environment were reviewed as part of this assessment. The findings are summarized in the following subsections.

6.1 Agency File Review

Requests to review files for the Subject Property were submitted to the Regional Water Quality Control Board (RWQCB), the Department of Toxic Substances Control (DTSC), and Kings County. Printouts and information from regulatory databases and agencies are included in Appendix C.

The DTSC was unable to locate any records for the Subject Property.

The RWQCB identified the Subject Property as part of the Westlands Water Quality Coalition, which is an intermediary between commercial farmers and the RWQCB. No other documents or information were provided.

Information regarding the Subject Property and nearby properties was additionally searched on 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 did not appear on the GeoTracker or Envirostor websites.

Kings County has provided an initial response to the public records request, stating they will need additional time to process and prepare any records pursuant to the request.

6.2 Environmental Database Review

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 Property and nearby properties that have the potential to adversely impact the Subject Property 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 Property	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		1.000	0	0	0	0	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-VSQG		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		0.001	0	NR	NR	NR	NR	0
STATE ASTM STANDARD								
RESPONSE		1.000	0	0	0	0	NR	0
ENVIROSTOR		1.000	0	1	0	0	NR	1
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
CPS-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
AST		0.250	2	0	NR	NR	NR	2
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

6.2.1 On-Subject Property

The Subject Property was not listed on any of the databases EDR searched.

6.2.2 Off-Subject Property

Moore Twining's review of the referenced databases also considered the potential or likelihood of contamination from adjoining and nearby properties impacting the Subject Property. To evaluate which of the adjoining and nearby properties identified in the regulatory database report present an environmental risk to the Subject Property, 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 Property;
- The direction and distance of the site from the Subject Property;
- Local soil conditions in the area of the Subject Property;
- The known or inferred groundwater flow direction;
- The status of the respective regulatory agency-required investigation(s) of the identified site, 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 site and the Subject Property.

The following table lists the nearest reported offsite listings. Only those properties that were judged to present a potential environmental risk to the Subject Property and/or warrant additional clarification were further evaluated on the following table.

Summary of Identified Properties				
Property	**Distance From Subject Property**	**Databases**	**Risk to Subject Property**	**Rationale**
Shamrock Farming/AZCAL Management Company 28088 Avenal Cutoff Road Stratford, CA	Adjacent to the west, upgradient	AST SWEEPS UST CA FID UST CUPA LISTINGS CERS HAZ WASTE CERS TANKS CERS	LOW	The listings are primarily associated with USTs/ASTs located on the site for motor vehicle fuels (diesel and gasoline). Hazardous waste disposal records were reported, which appears to be associated with used oil disposal. Notifications/violations included no secondary containment for the used oil tanks, which was corrected by the next inspection. Administrative paperwork was not properly submitted/completed; this violation was also

Summary of Identified Properties				
Property	**Distance From Subject Property**	**Databases**	**Risk to Subject Property**	**Rationale**
				corrected. The site has chlorine tanks on the property, which are used as part of the irrigation system. Although this site is located upgradient of the Subject Property, the lack of a documented release and all reported notices/violations have been corrected, the risk to the Subject Property is considered low.
Avenal and Lincoln Airstrip 28th Ave & Lincoln Ave Stratford, CA	705 feet west-northwest, upgradient	ENVIROSTOR	LOW	The listing is associated with a historical airstrip, which was approximately '30 gallons or more', according to the DTSC Envirostor database. The investigation and cleanup status were referred to another agency in 1995. No additional information was provided.

6.2.3 Orphan Properties

An Orphan Property is a listed property in the same zip code as the Subject Property which cannot be mapped because of inadequate address information. Forty-two Orphan Properties were included in the EDR report. Based on further review of available address/street location data, the forty-two listings were deemed unlikely to be an environmental concern to the Subject Property based on their distance.

7.0 SUMMARY OF FINDINGS AND OPINIONS

The findings of the Phase I ESA are summarized in the following sections:

7.1 Subject Property

The Subject Property comprises approximately 2,107 acres of agricultural and undeveloped land. The Subject Property is located at the intersection of Avenal Cutoff Road and Laurel Avenue, in the city of Stratford, Kings County, California. The Subject Property has been assigned the following Kings County

Assessor's Parcel Numbers (APNs): 026-010-028-000, 026-300-031-000, 026-300-032-000, 026-300-043-000, 026-300-044-000, 026-300-033-000, 026-320-002-000, 026-320-003-000, 026-010-027-000, 026-010-035-000, 026-010-043-000, 026-010-009-000, and 024-260-033-000.

At the time of the Subject Property reconnaissance, the Subject Property was primarily being used for agricultural purposes, with some areas consisting of vacant/undeveloped land. Multiple irrigation wells and fertigation systems, including pumps and fertilizer tanks, were observed throughout the Subject Property for fertilization of the crops. A fertigation system along the western edge of the Subject Property also had two (2) ASTs associated with it; one of the ASTs contained sulfuric acid and the other contained chlorine.

Based on Moore Twining's review of historical aerial photographs, topographic maps, and city directories, the Subject Property has historically been used for agricultural purposes since the 1950's.

The Subject Property was identified in documents from the RWQCB in association with the Westlands Water Quality Coalition, which is an intermediary between commercial farmers and the RWQCB. No other regulatory records were identified for the Subject Property

7.2 Off-Subject Property

Based on Moore Twining's review of historical aerial photographs, topographic maps and city directories, the Subject Property vicinity has primarily been agricultural since the 1950's. Since the 1950's, numerous small outbuildings have been present to the west-southwest of the Subject Property.

At the time of the Subject Property reconnaissance, the Subject Property was bordered to the north, south, east and west by agricultural land. Avenal Cutoff Road runs along the western edge of the Subject Property.

7.3 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.

Final responses have not been received from Kings County. This is considered a data gap This report may be updated upon receipt of any pursuant documents from Kings County.

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.

8.0 CONCLUSIONS

On behalf of Environmental Consulting Services, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for a Daylight Legacy Solar Project located at Avenal Cutoff Road and Laurel Avenue in Stratford, California. This assessment has revealed the following:

Recognized Environmental Conditions

No RECS have been identified during the course of this assessment.

Controlled Recognized Environmental Condition

No CRECs have been identified during the course of this assessment.

Historical Recognized Environmental Condition

No HRECs have been identified during the course of this assessment.

Proposed Additional Investigations

The legal application of agricultural chemicals is not considered a REC by the Comprehensive Environmental Response, Compensation and Liability (CERCLA) act of 1980. The exemption is noted in *(4) Application of Pesticides*—Section 107(i) of the ASTM E1527-21 standard. However, a clause is noted in the exemption stating, "The pesticide exemption also contains a "savings clause" that provides that the cost recovery prohibition does not alter or modify any obligations or liability under any other federal or state law for damages, injury or loss resulting from a release of hazardous substances, or for the costs of removal or remedial actions of such hazardous substances." It has been Moore Twining's experience that pesticides are persistent and can exist in soils long-term after use of agricultural chemicals. From the historical documents researched, no information was discovered that would indicate illegal agricultural activities occurred at the Subject Property. As the Subject Property has been used since the 1950's for agricultural purposes, the potential exists that persistent pesticides and other related agricultural chemicals may be present in the soils at the Subject Property. These constituents, even in low concentrations, can result in federal, state and local requirements for excavation, movement, disposal, assessment, and remediation. If present, costs could be incurred to address these conditions. Therefore, it is recommended that a systematic soil sampling and analysis program be conducted on the Subject Property to determine whether residual pesticides are present in the soil at concentrations exceeding the published human health screening levels. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

In addition to the pesticides, one of the fertigation systems utilizes sulfuric acid and chlorine. It is unknown how long these chemicals have been used on the Subject Property, but the potential exists for the chemicals to have been released to the subsurface during filling activities or leaks to have occurred around openings/connections to the fertigation system. The presence of sulfuric acid or chlorine could result in increased disposal fees and increased costs for remediations depending upon the concentrations

of sulfuric acid and/or chlorine in soils at the Subject Property. Therefore, it is recommended that a soil sampling and analysis program be conducted in the vicinity of the sulfuric acid and chlorine ASTs on the Subject Property to determine whether sulfuric acid or chlorine are present in the soil at concentrations exceeding the published human health screening levels. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

According to a review of historical aerial photographs and topographic maps, Avenal Cutoff Road has bordered the western edge of the Subject Property since at least the 1940s. There is a risk that soil along either side of the road has been contaminated by aerially deposited lead (ADL) generated by automobile traffic, prior to leaded gasoline being banned in California in 1992. The presence of lead in the soil could result in increased disposal fees, and costs for assessment and remediation depending on the concentration of lead in soils at the Subject Property. Therefore, it is recommended that soils along the Subject Property frontage road adjacent to Avenal Cutoff Road be sampled and analyzed for the presence of lead. If concentrations are reported above their respective published human health screening levels, recommendations for further action will be presented.

A small airstrip was identified in the EDR report, and can be observed on an adjacent property to the west, since the 1950s. The listing in the EDR report indicated that 30 gallons or more worth of empty pesticide containers were observed during a 'site screening'. The facility was given a 'low priority preliminary assessment' recommendation, and referred to another agency. No additional information was available. The airstrip is approximately 900 feet west and up-gradient of the Subject Property. If repeated/substantial spills of pesticides has occurred at the airstrip, the pesticides could have migrated to the water table and eventually migrated down-gradient to the Subject Property. Due to the close proximity to the Subject Property, the potential exists for contamination to have impacted the subsurface of the Subject Property.

Subsurface water distribution pipelines, owned and operated by Westlands Water District (WWD) traverse the Subject Property. Some segments of the on-Subject Property pipelines have been reported as asbestos containing. It should be noted that it was historically common for subsurface irrigation pipelines to contain asbestos (i.e., Transite pipe). Reportedly, these pipelines are contained in exclusive easements and would be avoided by the proposed project. In places where project conduit or internal driveways would need to cross the WWD easements, the construction contractor is required to follow WWD improvement standards and procedures for designing and building around the buried pipelines. Reportedly, this will reduce the potential that no asbestos-containing pipelines will be disturbed during project construction and operation. Therefore, no further investigation or action is recommended with respect to potential health hazards associated with asbestos-containing materials on the Subject Property. However, in the event that subsurface pipelines are encountered during future development or excavation on the Subject Property, care should be exercised in determining whether or not these pipelines contain asbestos. If they contain asbestos, they should be removed, handled, transported, and disposed of in accordance with applicable local, county, state and federal regulations.

9.0 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 Property. Any exceptions to, or deletions from, this practice are described in Section 6.3 of this report.

We appreciate the opportunity to be of service to ECS 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

Sara Bloom
Phase I Project Manager

Harry Moore PE, RCE, RGE, QSP
Principal Engineer

"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."

10.0 REFERENCES

American Society for Testing and Materials. (2021). *ASTM Standards of Environmental Site Assessments for Commercial Real Estate, E1527-13, 2nd ed. West Conshohocken, Pennsylvania.* ASTM International.

California Geologic Survey. (2010). *Geologic Map of California 1:750,000 Scale*.

Environmental Data Resources, Inc. (August 2, 2023). *Westland Solar Park, Avenel Cutoff Road & Laurel Ave, Stratford, CA 93266*. Environmental Data Resources, Inc.

Wagner, D. (2002). *Note 36: Geomorphic Map of California*. California Geologic Survey.

11.0 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
Harry Moore PE, RCE, RGE, QSP
Principal Engineer

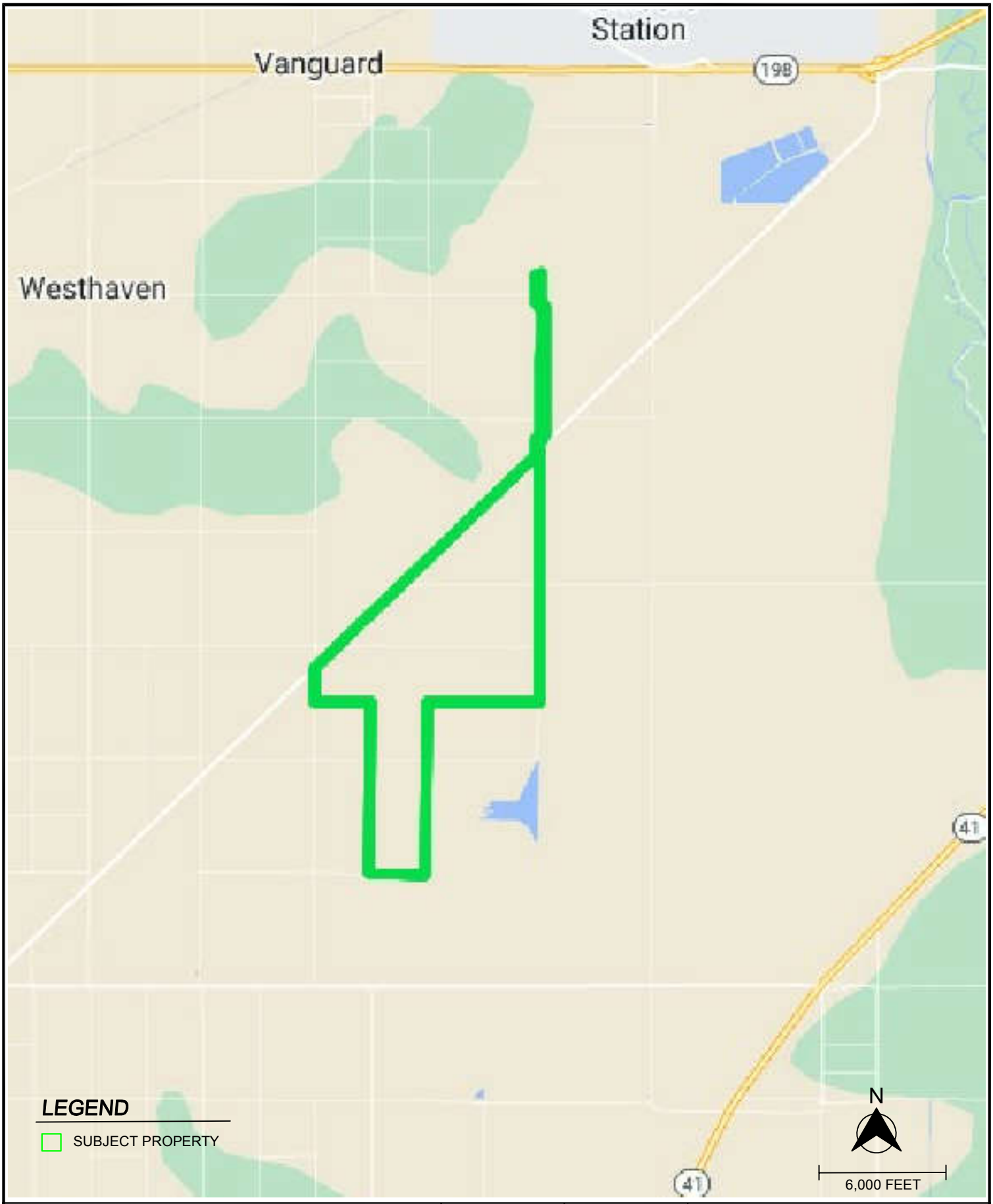
Mr. Moore has forty years of experience conducting Phase I Environmental Site Assessment, Phase II assessment work, and Phase II remediation. Mr. Moore is a Registered Civil Engineer, and a Registered Geotechnical Engineer. Mr. Moore has conducted environmental site assessments for a number of different project types including pesticide production facilities, shopping centers, gas stations, school sites, mines, large vacant properties, and agricultural sites.

Prepared by
Sara Bloom
Phase I Environmental Site Assessment Project Manager

Ms. Bloom has approximately eighteen years of experience conducting Phase I Environmental Site Assessments, Phase II assessment work, and Phase III remediation activities. Ms. Bloom has conducted environmental site assessments on a number of different project types including commercial office buildings, shopping centers, gas stations, industrial facilities, residential developments, large vacant properties, and agricultural sites.

APPENDIX A

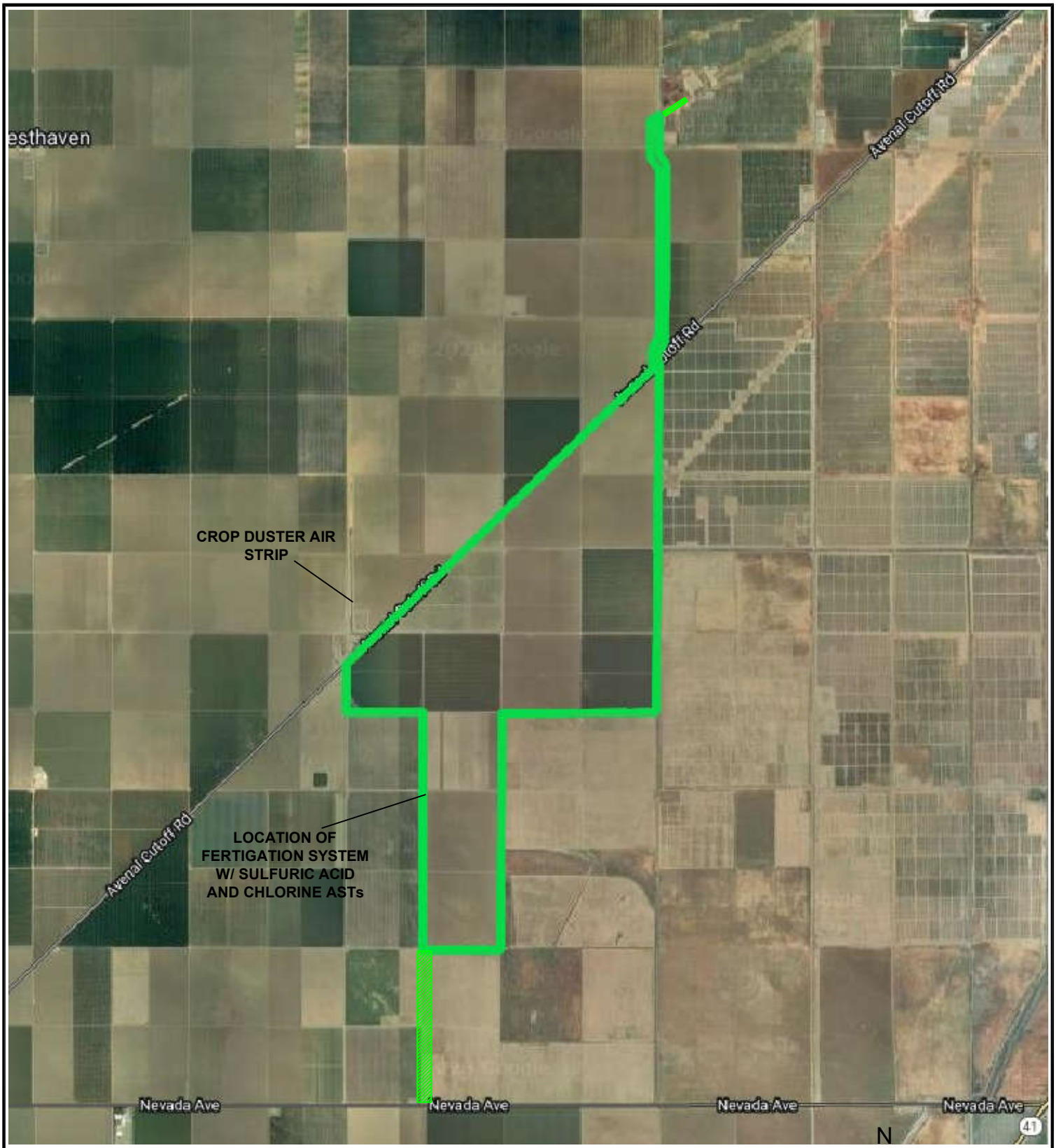
DRAWINGS



SITE LOCATION MAP
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAUREL AVENUE
STRATFORD, CA

FILE NO. Site Loc Map	DATE DRAWN: 08/02/23
DRAWN BY: SB	APPROVED BY:
PROJECT NO. C64411.05	DRAWING NO. 1

MOORE TWINING ASSOCIATES, INC.



N

0 4,500

APPROXIMATE SCALE IN FEET

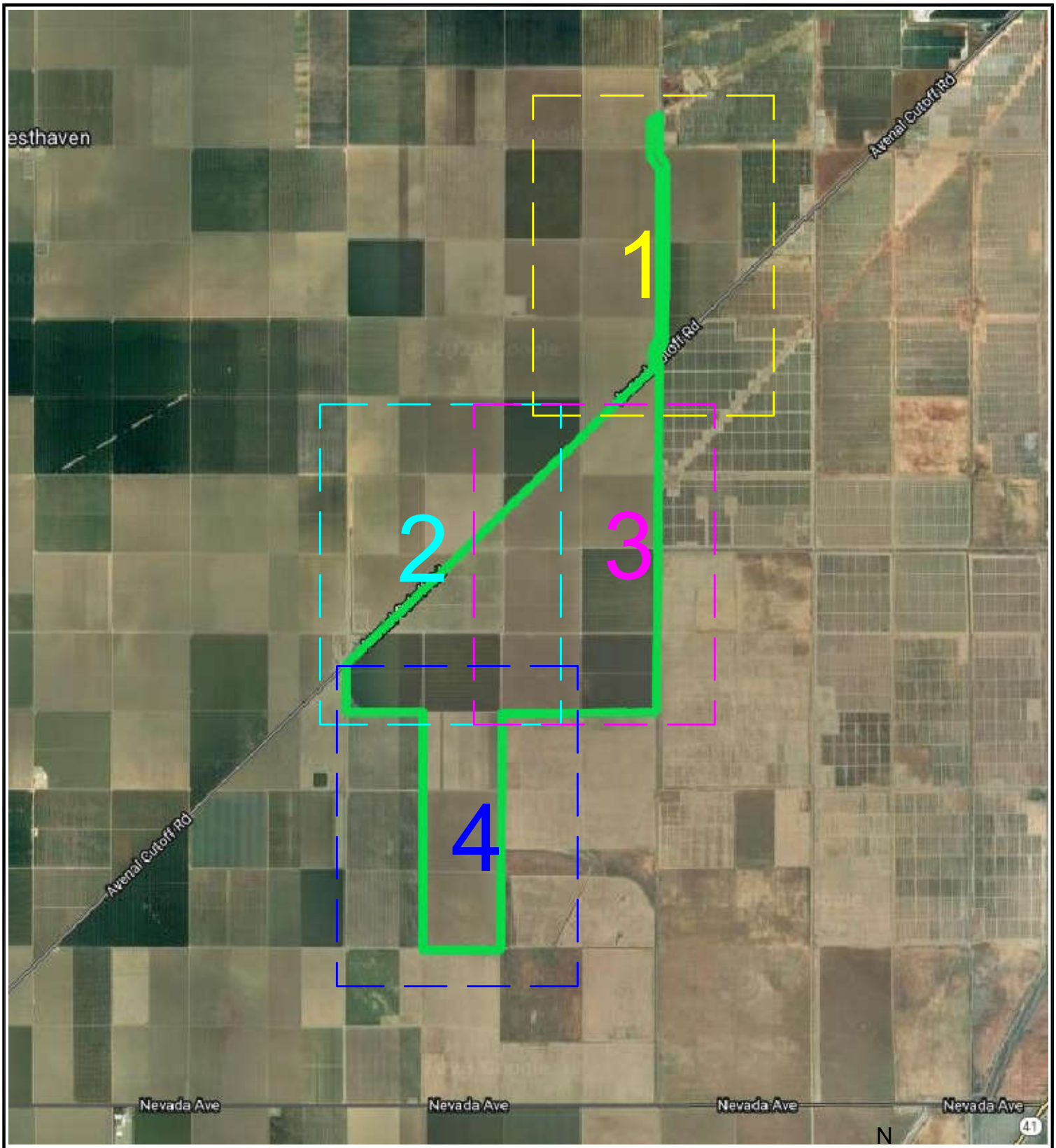
LEGEND

- SUBJECT PROPERTY
- ALTERNATE GEN-TIE IN LOCATIONS

SITE PLAN
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAURAL AVENUE
STRATFORD, CA

FILE NO. Site Map	DATE DRAWN: 08/02/23
DRAWN BY: SB	APPROVED BY:
PROJECT NO. C64411.05	DRAWING NO. 2

MOORE TWINING ASSOCIATES, INC.



N

0 4,500

APPROXIMATE SCALE IN FEET

LEGEND

SUBJECT PROPERTY

4 INDEXED QUADRANTS FOR HISTORICAL AERIALS

SITE PLAN
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAURAL AVENUE
STRATFORD, CA

FILE NO. Site Map	DATE DRAWN: 08/02/23
DRAWN BY: SB	APPROVED BY:
PROJECT NO. C64411.05	DRAWING NO. 3

MOORE TWINING ASSOCIATES, INC.

APPENDIX B

SITE PHOTOGRAPHS

Photo Album

by Sara Bloom

Looking northeast across the Subject Property

Looking east across the southern portion of the Subject Property.
One of multiple irrigation wells on the Subject Property.

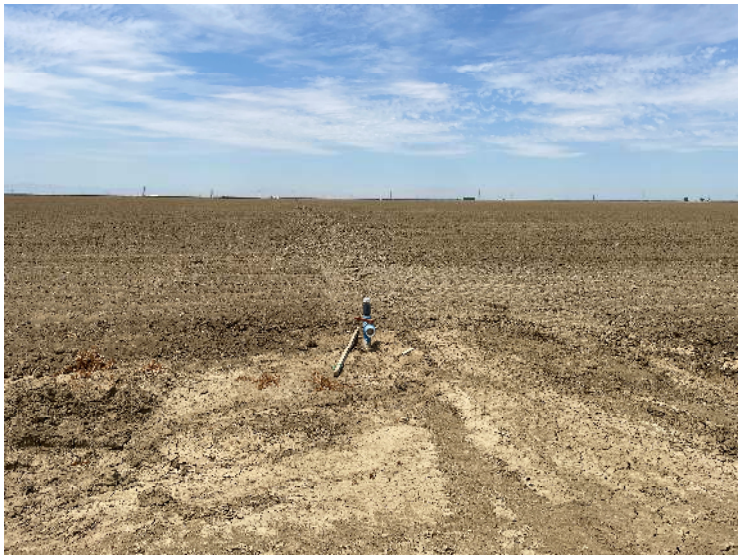
Looking northeast across the Subject Property from the southwesternmost corner.

Looking southwest along the eastern edge of the Subject Property. Typical fertigation system in foreground.

Looking north across the central portion of the Subject Property.

Looking west across the northern portion of the Subject Property.

Looking south along the overhead tie-in line of the Subject Property



Line of spigots running east/west along the northern portion of the Subject Property.

Irrigation pump located on the Subject Property.

Largest fertigation system located on western edge of the Subject Property.

Sulfuric Acid tank located on the Subject Property.

Chlorine tank located on the Subject Property.

Fertigation system on the Subject Property.

Typical setup of 55-gallon drum of lubricant for the irrigation pumps.

Orchard located to the west of the southern portion of the Subject Property.

Looking at the adjacent property to the south of the Subject Property.

Looking southeast from the central-eastern portion of the Subject Property.

Irrigation canal running east-west on the adjacent property to the east of the Subject Property.

Looking northeast from the eastern edge of the Subject Property at the adjacent solar field

Looking west at the adjacent property along the tie-in line.

APPENDIX C

REGULATORY AGENCY DOCUMENTATION

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Guijarral Hills field Fresno, Kings, Madera and Merced Countes	5
Former owner	**Date**
SUN EXPLORATION AND PRODUCTION COMPANY	August 18, 1989

Name and location of well(s)

All wells formerly under Sun Exploration and Production Company in Guijarral Hills field, Fresno, Kings, Madera and Merced Counties.

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
5/3/89	ORYX ENERGY COMPANY Address Four North Park East / P.O. Box 2880 5656 Blackwell Dallas, Texas 75221-2880	Corporation Telephone No.

Reported by
Memorandum from Sacramento dated 8/2/89 and Bond Rider dated 5/3/89 effective 5/3/89.

Confirmed by
also, copy of Certificate of Qualification submitted to California Secretary of State.

New operator new status (status abbreviation)	Request designation of agent
	on file
Old operator new status (status abbreviation)	**Remarks**
	Sec. 34, T. 20 S., R. 16 E. Original documents in well folder "Allison" 61-34, (019-04785)

Deputy Supervisor: Richard F. Curtin

Signature: Richard F. Curtin

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	JP	8/18/89	Map and book	Dwm	8/25/89
Form ODG148			Notice to be cancelled		
New well cards	✓	✓	Bond status		
Well records	✓	✓	EDP files		Sacto
Electric logs	✓	✓			
Production reports					

OGD156 (11/82/DWRR/2M)

DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Sun Exp. + Prod Well No. "Westhaven Farming" 1

API No. _____ Sec. 8, T. 20, R. 19, 10 B.&M.

County Kings Field _____

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs: 1" Comp. N. + Lith (2)	
1" Dil 300'-13819' (6) DHC	
5" Dil 300'-13819' (4) N Comp (2)	
2" Sonic 300'-13814 (2) Litho Den (2)	
5" Sonic 300'-13819 (3) Litho Comp Sonic (2)	
Mud Log 2	
13800 (2)	

STATUS		STATUS	
Producing - Oil	___	Water Disposal	___
Idle - Oil	___	Waterflood	___
Abandoned - Oil	___	Steamflood	___
Drilling - Idle	___	Fire Flood	___
Abandoned - Dry Hole	✓	Air Injection	___
Producing - Gas	___	Gas Injection	___
Idle - Gas	___	CO_2 Injection	___
Abandoned - Gas	___	LPG Injection	___
Gas-Open to Oil Zone	___	Observation	___
Gas Storage	___	Waterflood Source	___

DATE _____ "E" well Yes ☐ No ☐
RECOMPLETED _____
REMARKS _____

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.) ✓
2. Electric Log _____
3. Operator's Name _____
4. Signature ✓
5. Well Designation _____
6. Location ✓
7. Elevation ✓
8. Notices _____
9. "T" Reports ✓
10. Casing Record ✓
11. Plugs _____
12. Surface Inspection OK GLS 11-10-86
13. Production _____
14. E Well on Prod., enter EDP _____
15. Directional Survey _____

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165) _____
2. Elevation change ____ (F-OGD165) _____
3. Form OGD121 11/13/86
4. Form OG159 (Final Letter) 11/13/86
5. Form OGD150b (Release of Bond) —
6. Duplicate logs to archives _____
7. Notice of Records due (F-OGD170) _____
8. EDP (F-OGD42A-1, 2) _____

Surf Insp NG 11/5/86 TSB (still grading check 2nd in a week)

RECORDS NOT APPROVED
Reason: _____

RECORDS APPROVED TSB 11/6/86

RELEASE BOND n/a Blanket
Date Eligible _____
(Use date last needed records were received.)
MAP AND MAP BOOK ✓ (86-1323C) WS-1 6

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (2/85/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Coalinga, California

November 13, 1986

Mr. F. E. Armijo
SUN EXPLORATION AND PRODUCTION CO.
25322 W. Rye Canyon Road
Valenica, CA 91355

Your report of abandonment of well "Westhaven Farming" 1
(Name and number)
A.P.I. No. 031-20312, Section 8, T. 20S, R. 19E, M.D. B. & M.,
---------- field, Kings County,
dated 10/20/86, received 10/23/86, has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

Blanket Bond
TSB/jp
cc: Conservation Committee
Company Texas

M. G. MEFFERD
State Oil and Gas Supervisor
By W. E. Van Matre
(FOR) Richard F. Curtin
Deputy Supervisor

OG159 (11/82/GSR 1/8M)

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

RECEIVED
OCT 23 1986
DIVISION OF OIL & GAS
CCALINGA

API No. 031-20312

WELL SUMMARY REPORT

Operator	Well
SUN EXPLORATION & PRODUCTION COMPANY	Westhaven Farming #1

Field	County	Sec.	T.	R.	B.&M.
Tulago	Kings	8	20S	19E	MD

Location (Give surface location from property or section corner, street center line and/or California coordinates)
1980' N and 330' E of SW corner of Section 8.

Elevation of ground above sea level
241'

Commenced drilling (date)
8/13/86

Completed drilling (date) & P&A
9/24/86

Commenced producing (date)
Well P&A'd

☐ Flowing ☐ Pumping
☐ Gas lift

Name of producing zone(s)
Gatchell Sands

Total depth

(1st hole)	(2nd)	(3rd)
13,235'		

Present effective depth
P&A

Junk
No

Depth measurements taken from top of:
☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing
Which is 10' feet above ground

GEOLOGICAL MARKERS	DEPTH
Upper Temblor	9,635'
Lower Temblor	11,264'
Upper McAdams	12,714'
Gatchell	12,763'

Formation and age at total depth
Temblor (Miocene)/Gatchell (Eocene)

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
9-5/8"	Surface	3010'	36#	K55,STC	New	12¼"	1700 CF Cmt	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
N/A - Well P&A'

Was the well directionally drilled? If yes, show coordinates at total depth
☐ Yes ☒ No

Electrical log depths DILL-LSS-GR-CAL 3010-84'; LDT-CNL-NGT-CAL to 3000'
DIL-SFL-GR 13,227-3007'; Long Spaced SONIC-GR-CAL 13,214-3007;

Other surveys
None

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name	Title	
F. E. ARMIJO	OPERATIONS MANAGER	
Address	City	Zip Code
P.O. BO 55060	VALENCIA, CA	91355-0560
Telephone Number	Signature	Date
(805) 257-6200	F. E. Armijo	10-20-86

SUBMIT IN DUPLICATE

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

RECEIVED
NOV 14 1986
DIVISION OF OIL & GAS

History of Oil or Gas Well

Operator Sun Exploration and Production Company
Sun Production Division Field or County Kings
Well Westhaven Farming #1, Sec. 8, T 20S, R 19E, MD B. & M.
A.P.I. No. 031-20312 Name F. E. ARMIJO (Person submitting report) Title Agent (President, Secretary or Agent)
Date 11-11, 1986

Signature F. E. Armijo

Box 55060, Valencia, California 91355-0560 (Address) (805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1986	
8/13	13,000' M/EW/GATCHELL SANDS/MONTGOMERY/KINGS CA/16" @ 40'/LOC: 1980' N & 330' E OF SW COR, SEC.8, T20S, R19E, MDB&M/SPUD @ 4:00 AM 8-13-86/ 106'/D/SD-CLY/74'/MIRU MONTGOMERY DRLG CO RIG #4/RIG ON DAYWORK & SPUD @ 4 AM/DRLG 12¼" HOLE FRM 74-106'/
8/14	2035'/D/SD-CLY/1929/DRLG 12¼" HOLE FRM 106-2035/SURVEY @ 1601', 3/4°/MW 9.1/VIS 40/
8/15	3010'/LOGGING/SD-CLY/975/DRLG 12¼" HOLE FRM 2035-3010/MADE WIPER TRIP & CIRC HOLE CLN/STRAP OUT OF HOLE/RU SCHLUM & RAN DIL-LSS-GR-CAL FRM 3010-84/RUNNING LDT-CNL-NGT-CAL/SURVEY @ 3010', ½°/MW 9.1/VIS 38/
8/16	3010/NIPPLING UP/FINISHED RUNNING LDT-CNL-NGT-CAL/RIH TO 3000' (NO FILL) & CIRC CLN/POH/LD 8" DC's/RAN 76 JTS (3013') 9-5/8" 36# K55 STC/FLOAT CLR @ 2966/GUIDE SHOE @ 3010/CIRC CLN/HOWCO PMPD 1700 CF CMT/DISPL w DRLG MUD/BMPD PLUG @ 1500 PSI & BLED BK TO Ø/100 CF CMT RETNS/WOC/RD DIVERTER/CUT 9-3/4" CSG & WELD ON 5M CASINGHEAD/NIPPLING UP 5M BOP STACK/MW 9.1/VIS 39/
8/17	3144/D/SD-SH-CLY/134/INSTLD CLASS III 5M STACK, CHOKE & KILL LINES/RIH w BHA & TESTED BOPE TO 1500 PSI (WITNESSED BY D.O.G.)/DRL FLOAT & CMT TO 3000/TESTED CSG TO 2500 PSI, OK/DRL SHOE @ 3010 & 8-3/4" HOLE FRM 3010-3035/RAN LEAK-OFF TST (CALC FRAC GRAD = 13.8 PPG)/DRL 8-3/4" HOLE FRM 3035-3144/MW 8.8/VIS 36/
8/18	4350/D/SD-CLY/SH/1206/DRLG TO 4350/TRIP FOR BIT, HAD A LITTLE TIGHT HOLE/SURVEY @ 4043', ½°/MW 9.5/VIS 42/
8/19	5124'/D/SD-CLY/774/RIH, REAM SPOTS FRM 3500-4350/DRLG 8-3/4" HOLE FRM 4350-5124/ SURVEY @ 5041', ¼°/MW 9.61/VIS 48/
8/20	5780'/D/CLY-SD/656/DRLG TO 5564/TRIP FOR BIT, TIGHT HOLE FRM 5300-3866/CHG BIT, OPERATE BOP/RIH, REAM & WASH TIGHT HOLE FRM 4320-5300/DRLG TO 5780/SURVEY @ 5553' ½°/MW 9.7/VIS 48/

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DIVISION OF OIL & GAS

DIVISION OF OIL AND GAS
History of Oil or Gas Well

Westhaven Farming #1

1986

8/21 6765/TRIPPING/CLY-SD-SD/985/DRLG TO 6120/WIPE HOLE TO 5090, (TIGHT)/DRLG TO 6581/WIPE HOLE TO 4641', REAM TIGHT HOLE @ 6220-6241 & 6420-6442/DRLG TO 6765/ DROP SURVEY & TRIP FOR BIT/SURVEY @ 6550' ¼°/MW 9.6/VIS 45/

8/22 7540/D/SD-CH-CLY/775'/TRIP FOR BIT/WASH & REAM FRM 6385-6415/RIH TO 6765/DRLG & SURVEY TO 7260/WIPE HOLE TO 6323/RIH, REAM FRM 6849-6909/RIH, DRLG TO 7540/ SURVEY @ 7045' 0°/MW 9.7/VIS 45/

8/23 8132/D/SD-CLY-SLT/592/DRLG 8-3/4" HOLE TO 7816/DROP SURVEY, TRIP FOR BIT & CUT DRLG LINE/REAM FRM 7776-7816/DRLG FRM 7816-8132/SURVEY @ 7816' 1°/MW 9.9/VIS 44/

8/24 8441/D/SD-CLY-SH/309'/DRLG 8-3/4" HOLE FRM 8132-8213/WIPE HOLE TO 7250/DRLG TO 8338 & RAISE MUD WT TO 10.2/TRIP FOR BIT/DRLG TO 8441/MW 10.2/VIS 43/

8/25 8769/D/SD-CLY-SLT/328'/DRLG 8-3/4" HOLE FRM 8441-8525/WIPE HOLE TO 7466, HAD 24' FILL/DRLG TO 8689/WIPE HOLE TO 7745, HAD 2' BRIDGE @ 8670/DRLG TO 8766, CIRC FOR MUD LOGGERS, 41 UNITS OF GAS/DRLG BREAK 8685-8740/DRLG TO 8769/SURVEY @ 8525', 3/4°/MW 10.6/VIS 45/

8/26 8949/D/SD-SH/180'/DRLG FRM 8769-8787, LOST PMP PRES/CHECK SURFACE EQUIP/POH, FOUND WASHED OUT TOOL JT 19 JTS INTO HW DRL PIPE/CHG BIT, WRK BOP/RIH TO 8787/ DRLG TO 8949/MW 10.7/VIS 44/

8/27 9285/D/SD-SH-CLY/336/DRLG 8-3/4" HOLE FRM 8949-9285/MADE 2 WIPER TRIPS, OK/ SURVEY @ 9058', 3/4°/MW 10.7/VIS 41/

8/28 9568/TRIP FOR BIT/SD-SH-CLY/283/DRLG 8-3/4" HOLE FRM 9285-9568/MADE ONE 10 STD WIPER TRIP/POH FOR NEW BIT/MW 10.8/VIS 50/

8/29 9568/WORKING TIGHT PIPE/POH, CHG BIT/TIGHT HOLE FRM 7960-5431/TST BOPE & CHOKE TO 1500 PSI, OK/RIH TIGHT @ 6019/BROKE CIRC, CIRC BK @ 8143/TRY TO CIRC @ 9356, PACKD OFF/WRK PIPE OUT OF HOLE/TRY TO CIRC & JAR PIPE OUT/CANNOT CIRC @ 5000/MW 10.6/VIS 41/

8/30 9604/D/SD-SH-CLY/36/POH, FILL HOLE w KELLY SWAB TO SURF/CLN DC & STAB/CHECK BIT/RIH TO 3000/CHG JARS & CUT DRLG LINE/RIH TO 4259, COND MUD/RIH & STG TO 5834, PACKED OFF/POH TO 5093, CIRC/RIH TO 5554, 6108, 6757' CIRC, COND MUD/RIH & STG @ 8143-9418, CIRC COND MUD/CLND OUT & REAMED FRM 9418-9568/DRLG 8-3/4" HOLE FRM 9568-9604/SURVEY @ 9451' 3/4°/MW 11.3/VIS 47/

8/31 9954/D/SD-SH-CLY/350/DRLG 8-3/4" HOLE FRM 9604-9650/DRLG BREAK/COND MUD FOR LOGGERS/PU TO 9560, CIRC SAMPLE/RIH, HIT BRIDGE @ 9590/REAMED SAME/DRLG 8-3/4" HOLE FRM 9650-9799/WIPE HOLE FRM 9799-8809/HAD 10' FILL/DRLG 8-3/4" HOLE FRM 9799-9954/MW 11.4/VIS 40/

DIVISION OF OIL AND GAS
History of Oil or Gas Well

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DIVISION OF OIL & GAS
ALASKA

Westhaven Farming #1

1986

9/1 10,304/D/SD-SH-CLY/350/DRLG 8-3/4" HOLE FRM 9954-10,048/MAKE 10 STD WIPER RUN/ DRLG 8-3/4" HOLE FRM 10,048-10,304/SURVEY @ 10,017' 3/4°/MW 11.4/VIS 42/

9/2 10,381/REAMING TO BTM/SD-CLY-SH/77'/MADE 10 STD WIPER, OK/DRLG TO 10,381/POH, FIRST 27 STDS, OK/TIGHT HOLE FRM 7281-4601/RIH TO 10,325, UNABL TO CIRC/PULL TO 8456, CIRC OUT THICK MUD/RIH TO 9356, CIRC/RIH, HIT BRIDGE @ 9852/CLN OUT FRM 9852-10,098/MW 11.4/VIS 48/

9/3 10,704/D/SLTST-CLY/323/DRLG 8-3/4" HOLE FRM 10,381-10,574/WIDE HOLE FRM 10,574-9634/NO FILL/DRLG 8-3/4" HOLE FRM 10,574-10,704/MW 11.4/VIS 46/

9/4 10,914/D/SD-CLY-SLTST/210/DRLG 8-3/4" HOLE FRM 10,704-10,790/WIPE HOLE FRM 10,790-9822/DRLG 8-3/4" HOLE FRM 10,790-10,905/6' DRLG BREAK FRM 10,899-10,905/ CIRC BTMS UP/DRLG 8-3/4" HOLE FRM 10,905-10,914/SURVEY @ 10,822',¼°/MW 11.4/VIS 43/

9/5 10,925/RIH/SD-CLY-SLT/11'/DRLG FRM 10,914-10,925/POH w BIT, HOLE TIGHT FRM 7837-7374/RIH TO 4414, LOST POWER, REPAIR RIG FOR 4 HRS/RIH TO 8019, UNABL TO CIRC/ PULL TO 6159 CIRC OUT THICK MUD/RIH TO 7096 CIRC/RIH TO 8019, BREAK CIRC/MW 11.4/VIS 45/

9/6 11,144/DRLG/SD-CLY-SLT/219/STAGE IN HOLE & BREAK CIRC EVERY 10 STDS FRM 8019-10,925/WASH & REAM 50' TO BTM/DRLG 8-3/4" HOLE FRM 10,925-11,144/CIRC FOR MUD LOGGER @ 10,938-10,944 (NO SHOW) & 11,001-11,015 (NO SHOW)/MW 11.8/VIS 43/

9/7 11,256/DRLG/SD-CLY-SLT/112/DRLG 8-3/4" HOLE FRM 11,144-11,167/TRIP FOR BIT/STG IN HOLE & BREAK CIRCULATION @ 5062 & 7540/REAM 40' TO BTM (NO FILL)/DRLG 8-3/4" HOLE FRM 11,167-11,256/MW 12.0 PPG/VIS 47/

9/8 11,520/D/SD-SLTST-CLY/264/DRLG 8-3/4" HOLE FRM 11,256-11,520/MW 12.0/VIS 48/

9/9 11,785/D/SD-SLTST-CLY/265/DRLG 8-3/4" HOLE FRM 11,520 TO 11,785/MW 11.9/VIS 47/

9/10 11,934/D/SD-CLY-SLTST/149/DRLG 8-3/4" HOLE FRM 11,785-11,878/PU TO 11,365, DROP SURVEY/POH/TIGHT SPOTS FRM 7806-6511 & FRM 5772-5492/STAB CLN/RIH w 8-3/4" BIT TO SHOE @ 3010/CUT DRLG LINE 100', SLIP 70'/RIH w 8-3/4" BIT TO 5032, BREAK CIRC/RIH w 8-3/4" BIT TO 11,878 NO RESTRICTIONS/BREAK CIRC, LARGE CHUNKS MUD COMING BK/DRLG 8-3/4" HOLE FRM 11,878-11,934/MW 11.9/VIS 44/

9/11 12,223/D/SD-CLY-SLTST-SH/289/DRLG 8-3/4" HOLE FRM 11,934-12,223/SURVEY @ 12,027', 1/4°/MW 11.9/VIS 45/

9/13 12,423/D/SD-CLY-SLTST-SH/200'/DRLG 8-3/4" HOLE FRM 12,223-12,423/MW 12.1/VIS 43/

RECEIVED
NOV 14 1986
DIVISION OF OIL & GAS

DIVISION OF OIL AND GAS
History of Oil or Gas Well

Westhaven Farming #1

1986

9/13 12,557/D/SD-SH/134/WIPE HOLE FRM 12,380-12,165, VERY TIGHT/REAM FRM 12,380-12,423/DRLG FRM 12,423-12,557/MW 12.1/VIS 43/

9/14 12,616/D/SHALE-CLAY/59/DRLG FRM 12,557-12,616/TRIP FOR BIT, HOLE TIGHT COMING OUT @ 12,593-12,389 & 9174-6632/CIRC @ 5032, PIPE STOPPED @ 9448/WASH FRM 9448-9478/RIH, WASH FRM 12,563-12,593/DRLG TO 12,616/SURVEY @ 12,593', ¼°/MW 12.1+/VIS 48/

9/15 12,755/D/SD-SH-CLY/139/DRLG 8-3/4" HOLE FRM 12,616-12,755/MW 12.1/VIS 42/

9/16 12,982/D/SD-SH-CLY/227/DRLG 8-3/4" HOLE FRM 12,755-12,982/MW 12.1/VIS 40/

9/17 13,108/D/SDSTN-SLTSTN-CLY/126/DRLG 8-3/4" HOLE FRM 12,982-13,108/SURVEY @ 13,087', 1/2°/MW 12.1/VIS 40/

9/18 13,235 TD/PREPNG TO LOG/SD-SLTST-CLY/127/DRLG 8-3/4" HOLE FRM 13,108-13,235/CIRC COND HOLE FOR LOGS/MAKE WIPER TRIP FOR LOGS/PU TO SURF, CSG @ 3010/MW 12.1/VIS 45/

9/19 13,235 TD/COND WELLBORE/MADE WIPER TRIP TO 3010 w TIGHT HOLE FRM 12,400-4849/RIH, BREAK CIRC @ 3010, HIT BRIDGE @ 5867/RIH TO 7004, CIRC/RIH, HIT BRIDGE @ 8519, WASH & REAM TO 8621/RIH TO 10,037 UNABLE TO CIRC/PULL TO 9851, TIGHT UNABLE TO CIRC/PULL TO 8924, CIRC BTM UP/RIH TO 9427 & BREAK CIRC/RIH TO 9857 & BREAK CIRC/RIH TO 10,687 & BREAK CIRC/RIH TO 12,088 & BREAK CIRC/RIH TO 13,202 & CO 32' OF FILL FRM 13,202-13,235/CIRC & CONDITION HOLE FOR LOGGING/RAISING MW TO 12.6 PPG/MW 12.6/VIS 51/

9/20 13,235 TD/CONDITIONING WELLBORE FOR LOGS/CIRC & CONDITION HOLE FOR 5 HRS/POH TO CSG SHOE @ 3010 (WIPER TRIP #2)/TIGHT HOLE FRM 10,362-10,440, 7374-8205 & 6720-6813/SLIP & CUT DRLG LINE/RIH TO 13,235' (NO FILL) WHILE BREAKING CIRC @ 6049', 8082, 10,038 AND 11,615'/CIRC & CONDITION HOLE FOR 6 HRS & RAISE MW FRM 12.6 TO 13.0 PPG/POH TO CSG SHOE @ 3010 (WIPER TRIP #3)/MW 13.0/VIS 53/

9/21 13,235 TD/LOGGING/BIT PLUGGED ON WIPER TRIP @ 3010/POH & UNPLUGGED BIT/RIH TO 13,235 (NO FILL)) WHILE BREAKING CIRC @ 7065 & 10,037/CIRCULATE & COND HOLE FOR 3 HRS/STRAP OUT OF HOLE/NO DRAG ON TOH/RU SCHLUM & RAN DIL-SFL-GR FRM 13,227-3007/RUNNING LONG SPACED SONIC-GR/MW 12.9/VIS 46/

9/22 13,235 TD/LOGGING/SCHLUM RAN LONG SPACED SONIC-GR-CAL FRM 13,214-3007/RIH TO 13,235, CIRC COND HOLE/POH, RAN VELOCITY SURVEY FRM 13,200-500'/RD LOGGERS/MW 12.8/VIS 43/

9/23 2342 PBTD/PLUGGING WELL/RIH TO 10,749, RU LAY DN MACHINE/LD 279 JTS 5" DP/RIH w 20 JTS OF 2-7/8" TBG ON 5" DP TO 3083/PMP 300 CF CL 'G' CMT w 2% $CaCl_2$ & DISP/PULL TO 2220, CIRC OUT/TRIP FOR 8½" BIT, TAG CMT @ 2342, OK BY D.O.G./MW 12.8/VIS 43/

DIVISION OF OIL AND GAS
History of Oil or Gas Well

RECEIVED
NOV 14 1986
DIVISION OF OIL & GAS

Westhaven Farming #1

1986

9/24 P & A WELL/LAY DN D.P. AND KELLY/RAN 96' OF 2 7/8" TBG., PMP 19 CF CL. "G" CMT TO 6' OF SURFACE, OK BY D.O.G./PULL BOPE, CUT OFF CSG 5' BELOW GROUND LEVEL AND WELD ON PLATE/ALL OK BY D.O.G./CLEAN MUD TANKS/RELEASE RIG @ 12:00 MIDNIGHT/DROP FROM REPORT PENDING SURFACE CLEAN UP AND ABANDONMENT/

11/11 THIS WELL WAS DROPPED FRM REPORT ON 9-24-86/SURFACE CLEAN UP & ALL ABANDONMENT HAS BEEN COMPLETED & APPROVED BY GLEN MUGGELBURG OF THE D.O.G. AND THE LAND OWNER/ FINAL REPORT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 586-136

DIVISION OF OIL AND GAS

Report on Operations

CONFIDENTIAL WELL

Stanley W. Blossom
SUN EXPLORATION AND PRODUCTION CO.
25322 W. Rye Canyon Rd
Valencia, CA 91355

Coalinga, Calif.
September 24, 1986

Your operations at well "Westhaven Farming" 1, API No. 031-20312
Sec. 8, T. 20S, R. 19E M.D. B.& M. ------- Field, in Kings County,
were witnessed on 9/23/86. Mr. G. Muggelberg, representative of
the supervisor, was present from 0605 to 0620. There were also present Joe Incardone
for Sun.
Present condition of well: 16" cem. 75'; 9 5/8" cem. 3010'. TD. 13,225'. Plugged w/cem.
3083' to 2342' & 60' to 5'.

The operations were performed for the purpose of abandonment.

DECISION: THE PLUGGING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

DEFICIENCIES TO BE CORRECTED: NONE

CONTRACTOR: MONTGOMERY DRILLING

GWM/jp
cc: Co., Texas

M. G. MEFFERD
STATE OIL AND GAS SUPERVISOR

BY: Richard F. Curtin
RICHARD F. CURTIN
DEPUTY SUPERVISOR

OG109 (9/83/GSR1/15M)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

586-186

Operator Sun Exploration and Prod Well No. "Westhaven Farming" 1
API No. 03-20312 Sec. 8, T. 30S, R. 19E, MD B&M
Field -, County Kings. On September 29, 1986,
Mr. G. Muggelberg, representative of the supervisor was present from 0605 to 0620.
There were also present Joe Incardine for Sun
Casing record of well: 16" cem 75'; 7⅝" cem 3010', TD 13,235'
Plugged w/cem 3086' to 2342' & 60' to 5'.

The operations were performed for the purpose of abandonment.

☒ The plugging/cementing operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @_____' is approved.

Hole size: 8¾" fr. 3010' to 13235', _____" to _____' & _____" to _____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered: _____" shot/cut at _____', _____', _____' pulled fr. _____';
_____" shot/cut at _____', _____', _____' pulled fr. _____'.

Junk (in hole): _____

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
9-23	300 cf	Tagged 3083'	-	Rpt by J. Incardine	2342'	10,000#	9-23 610	G. Muggelberg
9-23	19 cf	DP @ 60'	-	Rpt by J. Incardine	5'	Visual	-	Rpt by J. Incardine

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 586-386

(field code)
--
(area code)
--
(new pool code)
--
(old pool code)

PERMIT TO CONDUCT WELL OPERATIONS

CONFIDENTIAL WELL

Stanley W. Blossom, Agent
SUN EXPLORATION AND PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Coalinga, California
September 29, 1986

Your proposal to ABANDON well "Westhaven Farming" 1,
A.P.I. No. 031-20312, Section 8, T. 20S, R. 19E, M.D. B. & M.,
---------- field, ---------- area, ---------- pool,
Kings County, dated 9/23/86, received 9/25/86 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THIS DIVISION SHALL BE NOTIFIED WHEN THE WELLSITE HAS BEEN RESTORED TO A CONDITION THAT WILL PASS ENVIRONMENTAL INSPECTION.

NOTE: To contact this Division call (209) 935-2941.

Blanket Bond
TSB/bcm

M. G. MEFFERD, State Oil and Gas Supervisor

By V. E Van Mathe
Deputy Supervisor
(FOR) RICHARD F. CURTIN

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (6/85/DWRR/5M)

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

RECEIVED
SEP 25 1986
DIVISION OF OIL & GAS
COALINGA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS OGD114	FORMS OGD121
	B	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well Westhaven Farming #1, API No. 031-20312, Sec. 8, T. 20S, R. 19E, MD B. & M., - Field, Kings County, commencing work on September 22, 19 86.

The present condition of the well is:

1. Total depth: 13,235'

2. Complete casing record, including plugs and perforations:
   9-5/8" 36#/ft K55 STC @ 3010'
   - Cemented with 1700 CF to Surface

3. Last produced N/A
   (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

4. Last injected N/A
   (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths)

5. Oil or gas shows No shows.

6. Stratigraphic markers:
   U. Temblor @ 9635'
   Red Beds @ 10905'
   L. Temblor @ 11400'
   Kreyenhagen @ 12135'
   Gatchell @ 13072'
   Base of Gatchell @ 13124'

7. Formation and age at total depth: Eocene 2750'

8. Base of fresh water sands: _____

The proposed work is as follows:

1. RIH with 2-7/8" OE tubing on 5" drill pipe to 3060' (50' below casing shoe).
2. Halliburton to pump a Class 'G' cement plug from 3060' to 2600' (a minimum of 100' above the base of fresh water @ 2750').
3. Displace with 12.8 PPG drilling fluid. POH and WOC.
4. DOG representative will witness tagging plug #1.
5. Halliburton to pump a Class 'G' cement plug from 30' to 5'.
6. DOG representative will witness TOC of plug #2.
7. POH and lay down 2-7/8" tubing.
8. Nipple down BOPE and wellhead.
9. Cut off 9-5/8" surface casing 5' below ground level.
10. Weld on steel abandonment marker, with well name and date identified.
11. The DOG will be notified to inspect the wellsite restoration for final approval of abandonment.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 West Rye Canyon Road (Street)
Valencia (City) CA (State) 91355-0560 (Zip)
Telephone Number (805) (Area Code) 257-6200 (Number)

SUN EXPLORATION & PRODUCTION CO (Name of Operator)
By STANLEY W. BLOSSOM (Print Name)
Stanley W. Blossom (Signature) 9-23-86 (Date)
By T.E.N.

OG108 (11-78-GSRI-5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 586-129

DIVISION OF OIL AND GAS

Report on Operations

CONFIDENTIAL WELL

Stanley W. Blossom, Agent
SUN EXPLORATION & PRODUCTION COMPANY
P. O. Box 55060
Valencia, CA 91355

Coalinga, Calif.
August 20, 1986

Your operations at well "Westhaven Farming" 1, API No. 031-20312,
Sec. 8, T. 20S, R. 19E, MD B.& M. ---------- Field, in Kings County,
were witnessed on 8/16/86. G. Muggelberg, representative of
the supervisor, was present from 2240 to 2400. There were also present Jeff Dakken, Driller
Present condition of well: 16" cem. 75'; 9-5/8" cem. 3010'. T.D. 3010' (standing cemented).

The operations were performed for the purpose of testing the blowout prevention equipment and installation

DECISION: THE BLOWOUT PREVENTION EQUIPMENT AND ITS INSTALLATION ON THE 9-5/8" CASING ARE APPROVED.

DEFICIENCIES CORRECTED: Inaccurate driller's gauge

DEFICIENCIES TO BE CORRECTED: NONE

CONTRACTOR: Montgomery Drilling, Inc.

GWM/bcm

M.G. Mefferd, State Oil & Gas Supervisor

Richard F. Curtin

Richard F. Curtin, Deputy Supervisor

OG109 (9/83/GSR1/15M)

DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

T 586-129

Operator Sun Exploration & Prod. Well "Westhaven Farming" 1 Field - County Kings

VISITS:	Date	Engineer	Time		Operator's Rep.	Title
1st	8-16-86	G. Muggelberg	224	to 410		Driller
2nd				to		

Casing record of well: 16" cem. 75'; 9⅝" cem. 3010'; TD 3015' (Cat. Mtg. cmtd.)

OPERATION: Testing ~~(inspecting)~~ the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 9⅝" casing are approved.

REQUIRED
BOPE CLASS: III 5M

Proposed Well Opns: drill MPSP: ____ psi
Hole size: 12¼" fr. 0 ' to 1310 ' , ____" to ____ ' & ____" to ____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus
9⅝"	36#	K-55	3010'		1500 sx lead 200 sx tail + 2% CaCl2 Bumped plug w/1500 #	2970	Returns

BOP STACK

API Symb.	Ram Sz.	Mfr.	Model or Type	Size (in.)	Press. Rtg.	Date Last Overhaul	a Gal. to Close	b Rec.Time (Min.)	a/b Calc. GPM Output
A	10	Hydril		10	5000				
R/I	5	Shaffer	LWS	10	5000				
R/I	CSO	Shaffer	LWS	10	5000				

TEST DATA

psi Drop to Close	Secs. to Close	Test Date	Test Press.
		8-16	1500
		8-16	1500
	R/I by S. Dahlgren	8-16	2500

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 3000 psi
Total Rated Pump Output ____ gpm
Distance From Well Bore 20 ft.

	Mfr.	Accum. Cap.	Precharge
1	Koomey	160 gal.	1000 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
✓ Manif. at accum. unit		✓
✓ Remote at Drlr's. stn.		✓ phen
Other:		

EMERG. BACKUP SYST.	Press.	Wkg. Fl.
✓ N2 Cyl No:3 Type:	1 2000	gal.
Other:	2 2000	gal.
	3 2000	gal.
	4 2000	gal.
	5	gal.
	6	gal.

AUXILIARY EQUIPMENT

		No.	Sz. (in.)	Rated Press.	Connections Weld	Flan.	Thrd.	
✓	Fill-Up Line							
✓	Kill Line		3	5000	✓	✓		1500
✓	Control Valve(s)	3		"		✓		1500
✓	Check Valve(s)	1		"		✓		1500
✓	Auxil. Pump Connec.			"		✓		1500
✓	Choke Line		3	"	✓	✓		1500
✓	Control Valve(s)	12		"		✓		1500
✓	Pressure Gauge					✓		
✓	Adjustable Choke(s)	2	3	5000		✓		1500
✓	Bleed Line		3			✓	✓	
✓	Upper Kelly Cock							-
✓	Lower Kelly Cock		3	5000				1500
✓	Standpipe Valve							1500
✓	Standpipe Pressure Ga.							
✓	Pipe Safety Valve		3	5000				-
✓	Internal Preventer		3	5000				-

HOLE FLUID MONITORING EQUIPMENT	Alarm Aud.	Alarm Vis.	Class
✓ Calibrated Mud Pit	✓	✓	A
✓ Pit Level Indicator	✓	✓	B
✓ Pump Stroke Counter		✓	
Pit Level Recorder			
✓ Flow Sensor	✓	✓	C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

REMARKS: Drillers gauge inaccurate

Hole Fluid Type	Weight	Storage Pits
Clay base	9.3	3 mud pits

OGD9 (12-83-DWRR-3M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 586-125

DIVISION OF OIL AND GAS

Report on Operations

CONFIDENTIAL WELL

Stanley W. Blossom, Agent
SUN EXPLORATION & PRODUCTION COMPANY
P. O. Box 55060
Valencia, CA 91355

Coalinga, Calif.
August 12, 1986

Your operations at well "Westhaven Farming" 1, API No. 031-20312, Sec. 8, T20S, R19E, MD B.& M. -------- Field, in Kings County, were witnessed on 8/12/86. G. Muggelberg, representative of the supervisor, was present from 1020 to 1040. There were also present Jeff Dokken, Driller

Present condition of well: 16" cem. 75'.

The operations were performed for the purpose of inspecting the blowout prevention equipment and installation

DECISION: THE BLOWOUT PREVENTION EQUIPMENT AND ITS INSTALLATION ON THE 16" CASING ARE APPROVED.

GWM/bcm

M. G. MEFFERD, State Oil and Gas Supervisor

Richard F. Curtin

Richard F. Curtin, Deputy Supervisor

DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

T 586-12S

Operator Sun Exploration & Prod Well "Westhaven Farming" 1 Field _____ County Kings

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	8-12-86	G. Muggelberg	1020 to 1040	Jeff Dohman	Driller
2nd			to		

Casing record of well: 16" csg 75'

OPERATION: ~~Testing~~ (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 16 "casing are approved.

REQUIRED BOPE CLASS: -

Proposed Well Opns: drill MPSP: _____ psi
Hole size: _____ " fr. _____ ' to _____ ' , _____ " to _____ ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus
16"			75'		-		

BOP STACK

API Symb.	Ram Sz.	Mfr.	Model or Type	Size (in.)	Press. Rtg.	Date Last Overhaul	a Gal. to Close	b Rec.Time (Min.)	a/b Calc. GPM Output	TEST DATA psi Drop to Close	Secs. to Close	Test Date	Test Press.
A	12	Hyd.	6K	12	3000	-							

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 3000 psi
Total Rated Pump Output _____ gpm
Distance From Well Bore 70 ft.

	Mfr.	Accum. Cap.	Precharge
1	Koomey	160 gal.	1000 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
✓ Manif. at accum. unit		✓
✓ Remote at Drlr's. stn.		Pneu
Other:		

EMERG. BACKUP SYST.	Press.	Wkg. Fl.
N2 Cyl No: Type:	1	gal.
Other:	2	gal.
	3	gal.
	4	gal.
	5	gal.
	6	gal.

AUXILIARY EQUIPMENT

		No.	Sz. (in.)	Rated Press.	Connections Weld	Flan.	Thrd.
✓	Fill-Up Line						
	Kill Line						
	Control Valve(s)						
	Check Valve(s)						
	Auxil. Pump Connec.						
✓	Choke Line		4	2000	✓	✓	
✓	Control Valve(s)	1		2000		✓	
	Pressure Gauge						
	Adjustable Choke(s)						
✓	Bleed Line		4		✓		
✓	Upper Kelly Cock						
✓	Lower Kelly Cock		4½	5000			
✓	Standpipe Valve						
	Standpipe Pressure Ga.						
✓	Pipe Safety Valve		4½	5000			
✓	Internal Preventer		4½	5000			

HOLE FLUID MONITORING EQUIPMENT

		Alarm Aud.	Alarm Vis.	Class
✓	Calibrated Mud Pit			A
	Pit Level Indicator			B
	Pump Stroke Counter			
	Pit Level Recorder			
	Flow Sensor			C
	Mud Totalizer			
	Calibrated Trip Tank			
	Other:			

REMARKS: Diverter line too short

Hole Fluid Type	Weight	Storage Pits

OGD9 (12-83-DWRR-3M)

Form OG123 (11/80/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	

DIVISION OF OIL AND GAS

COALINGA Calif.

A notice to you dated NOVEMBER 13, 1985, stating the intention to

DRILL, (Drill, rework, abandon) WESTHAVEN FRAMING #1 (Well name and number), API No. _____,

Sec. 8, T. 205, R. 19E, MD B. & M., TULAGO Field,

KINGS County, should be amended because of changed conditions.

The present condition of the well is as follows: NOT YET DRILLED

Total depth

Complete casing record including plugs and perforations

RECEIVED
NOV 25 1985
DIVISION OF OIL & GAS
COALINGA

We now propose To correct the name of this well to read as follows:
"WESTHAVEN FARMING # 1"

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. Rye Canyon Rd (Street)
Valencia, California 91355-0560 (City) (State) (Zip)
Telephone Number (805)257-6200

SUN EXPLORATION AND PRODUCTION CO. (Name of Operator)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)
By STANLEY W. BLOSSOM (Name) (Date)
Signature Stanley W. Blossom 11/21/85

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 585-647

PERMIT TO CONDUCT WELL OPERATIONS

CONFIDENTIAL WELL

--- (field code)
-- (area code)
-- (new pool code)
-- (old pool code)

Stanley W. Blossom, Agent
SUN EXPLORATION & PRODUCTION COMPANY
P. O. Box 55060
Valencia, CA 91355

Coalinga, California
November 18, 1985

Your proposal to DRILL well "Westhaven Farming" 1,
A.P.I. No. 031-20312, Section 8, T. 20S, R. 19E, M.D. B. & M.,
--- field, ---------- area, --- pool,
Kings County, dated 11/13/85, received 11/14/85 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. A diverter system capable of transporting formation fluids at least 50 feet horizontally from the outer edge of the rig floor shall be installed on the conductor pipe.
2. Sufficient cement shall be pumped back of the 9-5/8" casing to fill to the surface.
3. Mud fluid of sufficient weight and proper consistency to prevent blowouts shall be used in drilling, and the column of mud fluid shall be maintained to the surface at all times, particularly while pulling the drill pipe.
4. Blowout prevention equipment conforming to Division of Oil and Gas Class III A 5M is installed on the 9-5/8" casing and maintained ready for use at all times.
5. Blowout-prevention practice drills are conducted at least weekly and recorded in the log book.
6. Sufficient cement shall be used to fill behind the 5-1/2" casing to at least 500' above oil and gas zones and excessive pressure intervals.
7. THIS DIVISION SHALL BE NOTIFIED:
   a. TO INSPECT the diverter system prior to commencing downhole operations.
   b. TO WITNESS a pressure test of the blowout-prevention equipment prior to drilling out the shoe of the 9-5/8" casing.
   c. TO WITNESS a test of each possible water shut off.

NOTE: To contact this Division call (209) 935-2941.

Blanket Bond
TSB/bcm

M. G. MEFFERD, State Oil and Gas Supervisor
By V. E. Van Matre (for)
Richard F. Curtin - Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or this operation has been suspended.

ATTN: RICH CURTAIN

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

CONFIDENTIAL STATUS REQUESTED

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☐ S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☒
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
WS-1	11-14-85 CP	✓	B	✓	✓

PER: BILL ZUMWALT

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well "FARMING" * WESTHAVEN ~~FRAMING~~ #1, API No. 031-20312 (Assigned by Division),

Sec. 8, T. 20S, R. 19E, MD B. & M., ~~TULAGO~~ Field, KINGS County.

Legal description of mineral-right lease, consisting of ~~479.96~~ 120 * acres, is as follows: (Attach map or plat to scale)

SEE LEGAL DESCRIPTION ATTACHED. * Per Telcon Curtin - Terry Carter 14NOV85

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Do mineral and surface leases coincide? Yes X No____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 1980 feet NORTH (Direction) along section/property line and 330 feet EAST (Direction)

(Cross out one)

at right angles to said line from the SW corner of section/~~property~~ (Cross out one) ____ or

8, T20S, R19E, MD., B&M.

Is this a critical well according to the definition on the reverse side of this form? Yes ☐ No ☒

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

N/A feet (Direction) ____ and ____ feet (Direction) ____

Elevation of ground above sea level 240.9 feet.

All depth measurements taken from top of KELLY BUSHING (Derrick Floor, Rotary Table, or Kelly Bushing) that is ±15 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
9-5/8"	36#	K-55, ST & C	SURF.	3000'	0 to 3000'	1400 CF. = 150% CALC. VOL. TO SURF.
5-1/2"	17# & 20#	N-80, LT & C	SURF.	13000'	8500 to 13000'	1400 CF. = 125% CALC. VOL.

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion UPPER TEMBLOR-9497', 4400 PSI/GATCHELL-12771, 5930 PSI LOWER TEMBLOR-11250', 5230 PSI (Name, depth, and expected pressure) Estimated total depth 13,500 MD.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN EXPLORATION AND PRODUCTION	CORPORATION	
Address	**City**	**Zip Code**
25322 W. RYE CANYON ROAD.	VALENCIA, CALIFORNIA	91355-0560
Telephone Number / **Name of Person Filing Notice**	**Signature**	**Date**
(805) 257-6200 STANLEY W. BLOSSOM	Stanley W. Blossom by TWC	11-13-85

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information.

Lead Agency: _____

Contact Person: _____

Address: _____

_____

Phone: ( ) _____

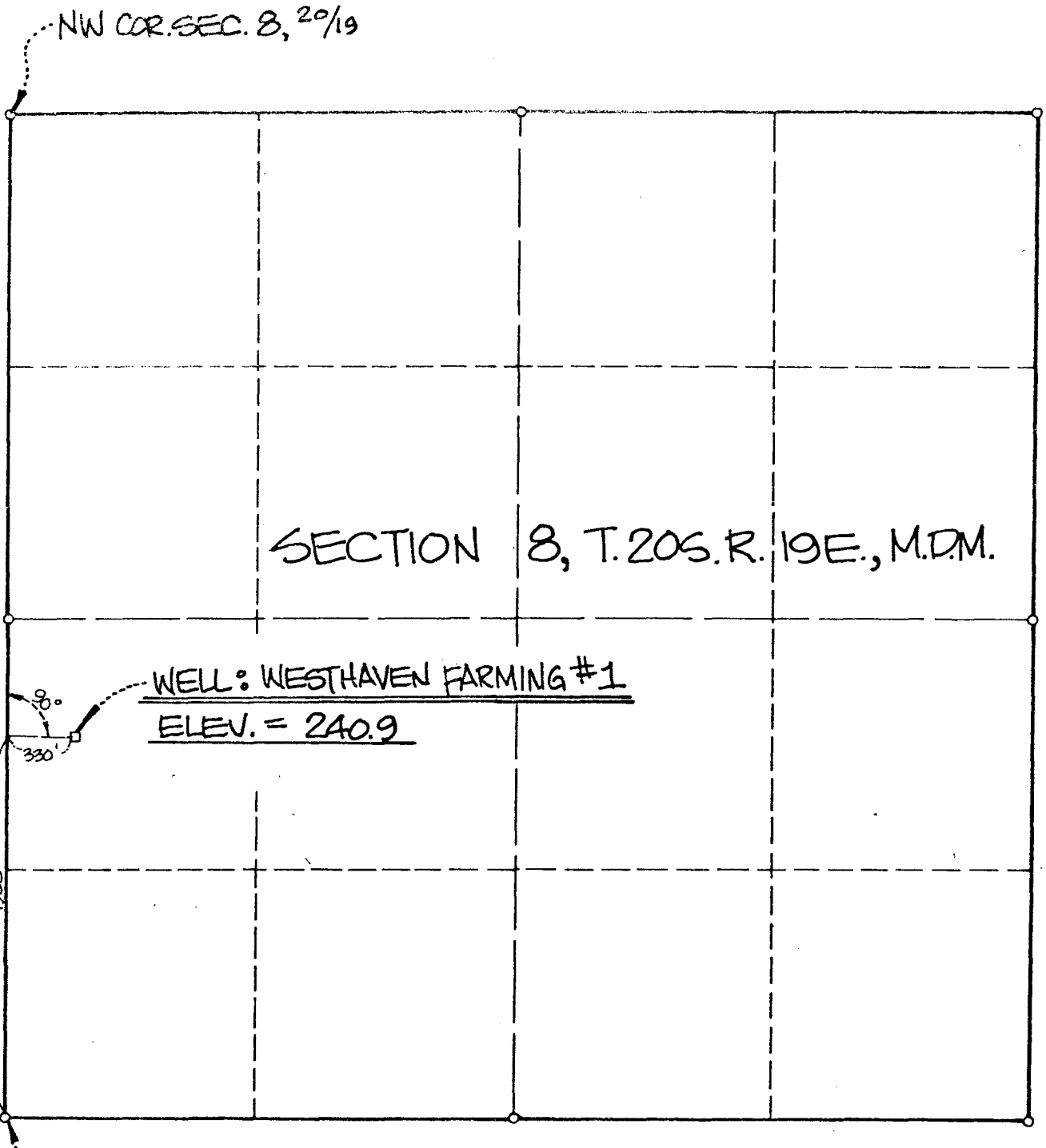
FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks: _____

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), "Critical well" means a well within:

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.



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Set Reference Points		
distance	dir.	elevation
150'	W.	241.6
100'	W.	241.2
100'	N.	241.3
150'	N.	241.0

COMPANY: SUN EXPLORATION & PRODUCTION CO.
Well Designation: WESTHAVEN FARMING #1 Elev. 240.9
Coordinates: 1980'N. and 330'E. of SOUTHWEST CORNER
Section 8 Twp 20S. Range 19E. M.D.M. KINGS Co.
B.M. Used U.S.D.I. B.R. DISK 35'N. & 110'E. OF SW COR SEC 8, 20/19 ELEV. = 244.84

date: 11-8-85 | job no.: 11873
drawn by: WD | appr.:

RICKETT, WARD & DELMARTER
Civil Engineers & Surveyors
2901 "H" Street Bakersfield, Cal.
Phone: 805-327-1486 Zip 93301

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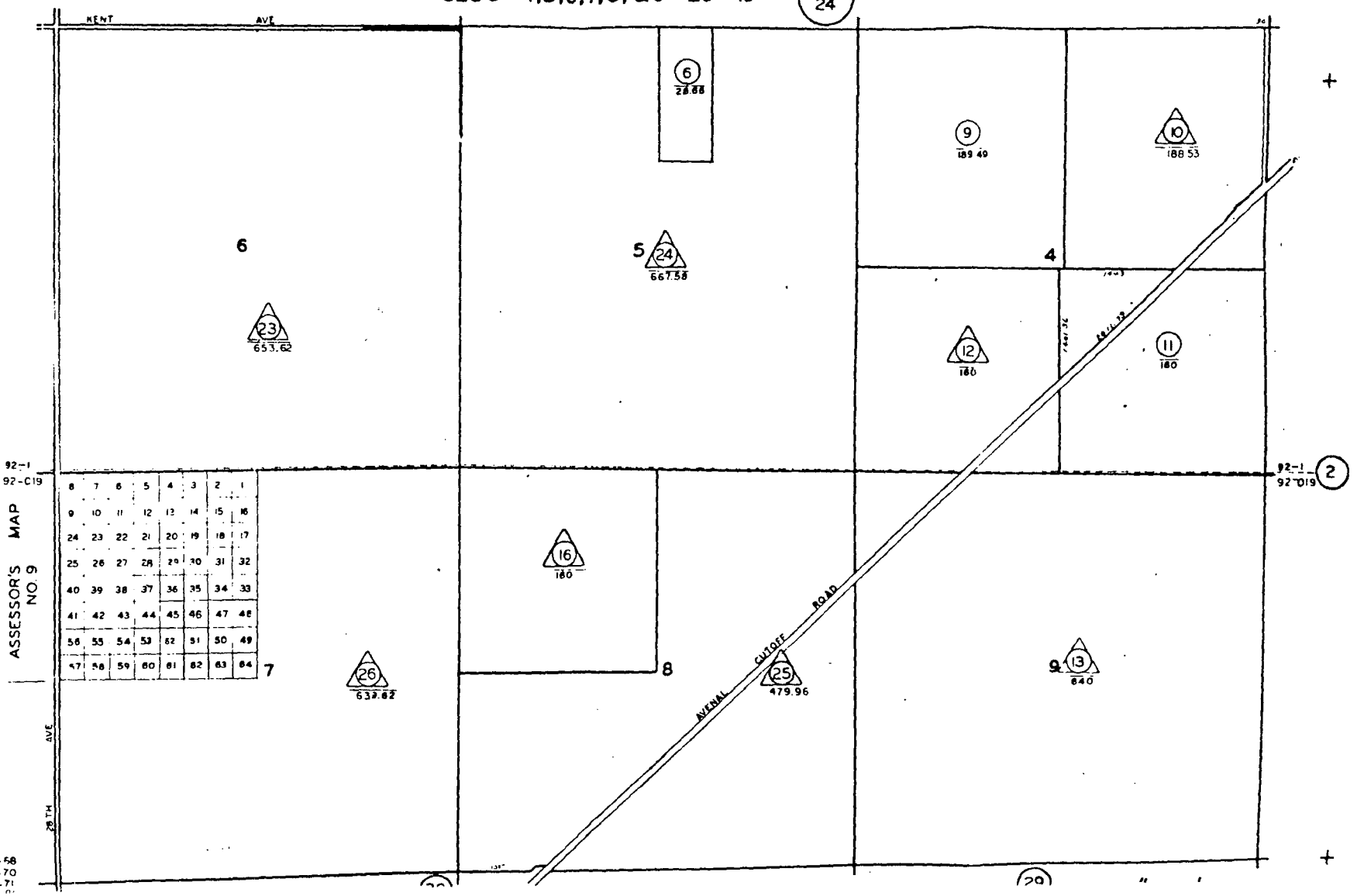
It is not to be presumed as portraying legal ownership or divisions of land for purposes of zoning or subdivision law.

KINGS COUNTY ASSESSOR'S MAP

26-01

SEC'S 4,5,6,7,8, & 9-20-19

BK 24



Allen Heirs		Net Acres
Township 20 South, Range 19 East		
Section 6:	N/2SW/4, SW/4SW/4	119.20
Section 7:	SW/4NE/4, NW/4SE/4, SW/4	240.00
Section 8:	N/2SW/4, SW/4SW/4	120.00
Township 20 South, Range 18 East		
Section 1:	N/2, SW/4	533.20
Section 11:	N/2, SW/4	480.00
Section 12:	N/2, SW/4	480.00
	Total Acres	1,972.40
GRAND TOTAL ACRES		26,951.05

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NOV 14 1985
DIVISION OF OIL & GAS
COALINGA

MOORE TWINING ASSOCIATES, INC.

Public Records Request

July 19, 2023

Requestor Information:

Name: Sara Bloom
Company: Moore Twining Associates, Inc.
Telephone: 559-970-6454
Email: sarab@mooretwining.com

Dear Sir/Ma'am,

Moore Twining Associates, Inc. (MTA) is performing a Phase I Environmental Site Assessment (ESA) on a property in Stratford, CA. We would like to review records dating as far back as 1940 for the following property/properties relating to: hazardous material/waste handling, industrial wastewater disposal/sewerage permitting, code compliance violations and inspections, building, demolition, occupancy, grading and utility permits, underground storage tanks (USTs) and above ground storage tanks (ASTs), pipelines, industrial wastewater sumps, emergency fire/spill response post-incident cleanup permits and/or environmental impacts for the following property/properties:

Facility/Site ID	Facility/Site Name	Parcel Number (APN)	Address	City, State, Zip Code
Daylight Legacy Solar Project	Daylight Legacy Solar Project	026-010-028-000 026-300-031-000 026-300-032-000 026-300-043-000 026-300-044-000 026-300-033-000 026-320-002-000 026-320-003-000 026-010-027-000 026-010-035-000 026-010-043-000 026-010-009-000 024-026-033-000	Avenal Cutoff Road & Laurel Avenue	Stratford, California 93266

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
1515 Tollhouse Road
Clovis, California 93611

Yana Garcia
Secretary for
Environmental Protection

Gavin Newsom
Governor

July 26, 2023

Sara Bloom
Moore Twining Associates, Inc.
sarab@mooretwining.com

Public Records Request Number: 5-071923-01
Location(s): Daylight Legacy Solar Project
Avenal Cutoff Road & Laurel Avenue
Stratford, California 93266
APN's: 026-010-028-000, 026-300-031-000, 026-300-032-000
026-300-043-000, 026-300-044-000, 026-300-033-000
026-320-002-000, 026-320-003-000, 026-010-027-000
026-010-035-000, 026-010-043-000, 026-010-009-000
024-026-033-000

Dear Requestor:

On July 19, 2023 the Department of Toxic Substances Control (DTSC) received your email of July 19, 2023 requesting records under the Public Records Act. After a thorough review of our files, no site records were found pertaining to the sites/facilities referenced above.

A large number of our records are available on EnviroStor, an online database that provides non-confidential, public access to DTSCs data management system. It tracks our cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues. EnviroStor is available 24/7, 365 days a year. The data reflects the latest updates as they are entered in the system. Access it from your computer or smartphone, the local library – anywhere Internet access is available. Just go to www.envirostor.dtsc.ca.gov. You'll find a step-by-step tour of EnviroStor under the "How to Use EnviroStor" menu on the website.

If you have any questions or would like further information regarding your request, please contact me at 559-578-8175 or via email at ClovisFileRoom@dtsc.ca.gov.

Sincerely,
Shelly Combs
Shelly Combs
Regional Records Coordinator

Kings County
Department of Public Health
A Healthy Place to Live, Work, & Play

Rose Mary Rahn
Director

Milton Teske, M.D.
Health Officer

To promote and protect the health and well-being of Kings County residents through education, prevention, and intervention.

REQUEST FOR PUBLIC RECORDS

I, the undersigned, request to view certain specified records in the possession of this agency which is described below. I understand that some records are exempted from disclosure in accordance with various Federal and State laws, including the California Public Records Act. Examples of some exempted records include trade secrets, personnel and medical files, and records of complaints to or investigations by this agency such as names of confidential informants.

Describe records and specify copies requested in as much detail as possible: (i.e., business name, address, type of record desired, etc.)

Sara Bloom	Moore Twining Associates
Name (Please Print)	**Organization**
2527 Fresno Street, Fresno, CA 93721	559-268-7021
Address/City/Zip	**Phone Number/Fax**
sarab@mooretwining.com	07/19/23
Email	**Date**
Date of Arrival	**Signature** Sara Bloom

****

OFFICE USE ONLY

Notes:_____

No. of Copies:_____ Fee Paid:$_____ Receipt No:_____ Authorized By & Date:_____

H:\AWEHS\FORMS\APPLICATIONS\Request for public records 10/23/2019

COUNTY OF KINGS
Office of the County Counsel

KINGS COUNTY
GOVERNMENT CENTER
1400 W. LACEY BLVD.
LAW BLDG. NO. 4
HANFORD, CA 93230
TEL: (559) 852-2445
FAX: (559) 584-0865

DIANE FREEMAN
County Counsel

Deputies:
RISÉ A. DONLON
FRANK A. RUIZ
THOMAS Y. LIN
CINDY CROSE KLIEVER
SUSAN M. FISHER

August 1, 2023

Via Electronic Mail:
sarab@mooretwining.com

Sara Bloom
Moore Twining Associates, Inc.
2527 Fresno St.
Fresno, CA 93721

Re: California Public Records Act Request Dated July 19, 2023

Dear Ms. Bloom:

The County of Kings ("County"), has received your California Public Records Act ("CPRA") request dated July 19, 2023.

The County requires an additional 14 days to determine whether, and to what extent, it possesses records responsive to your request. A determination is anticipated to be made by: **August 15, 2023**.

If you have any questions, you may contact this office at the telephone number and/or address above, or via e-mail at Diane.Freeman@co.kings.ca.us. Thank you.

Sincerely,

Diane Freeman

DIANE FREEMAN
County Counsel

2023-33-1008 [503659]

Sara Bloom

From: WB-RB5F-Records <RB5F-Records@Waterboards.ca.gov>
Sent: Friday, July 28, 2023 2:31 PM
To: Sara Bloom
Subject: Public Records Request Response, Central Valley Water Board
Attachments: PRA_755_ILRP_Data.xlsx

Hello,

Regarding you 19 July 2023 Public Records Request for,

Daylight Legacy Solar Project- Avenal Cutoff Road & Laurel Avenue Stratford, California
026-010-028-000, 026-300-031-000, 026-300-032-000, 026-300-043-000, 026-300-044-000, 026-300-033-000, 026-320-002-000, 026-320-003-000, 026-010-027-000, 026-010-035-000, 026-010-043-000, 026-010-009-000, 024-026-033-000

Ryan West provided you with Irrigated Lands Regulatory Program data directly on 7/21/23.

No additional records were found by any of our other units/programs.

Thank you,

Nicholas Handcock, Staff Services Analyst
Central Valley Regional Water Quality Control Board
Fresno, CA
Phone: 559-445-6542
Nicholas.Handcock@waterboards.ca.gov

CALIFORNIA Water Boards

From: West, Ryan@Waterboards <Ryan.West@waterboards.ca.gov>
Sent: Friday, July 21, 2023 12:36 PM
To: WB-RB5F-Records <RB5F-Records@Waterboards.ca.gov>; sarab@mooretwining.com
Subject: PRA Request #755

In regard to your request for information for the parcels listed below:

Daylight Legacy Solar Project - Avenal Cutoff Road & Laurel Avenue Stratford, California

026-010-028-000
026-300-031-000
026-300-032-000
026-300-043-000
026-300-044-000
026-300-033-000
026-320-002-000
026-320-003-000
026-010-027-000

026-010-035-000
026-010-043-000
026-010-009-000
024-026-033-000

These properties are farmed commercially and are subject to regulation under the Central Valley Water Board's Irrigated Lands Regulatory Program (ILRP) General Order R5-2014-0001. The properties are currently enrolled under multiple member IDs with the Westlands Water Quality Coalition which is an intermediary between commercial farmers and the Central Valley Water Board.

Central Valley Water Board staff have identified the following information which may be responsive:

(1) Member enrollment information from the referenced Coalition's annual Membership List submittal (see attached).

Groundwater quality data, if available, can be accessed via the GeoTracker portal (https://geotracker.waterboards.ca.gov/). In the GeoTracker Map, select "choose more sites" from the map legend, and then choose permitted facilities, then select Irrigated Lands Regulatory Program Sites. For assistance please contact Ryan West (contact information below).

Thank you,
Ryan K. West
Engineering Geologist
Irrigated Lands Regulatory Program
Central Valley Regional Water Quality Control Board
1685 E Street
Fresno, CA 93706
(559) 445-6188
ryan.west@waterboards.ca.gov

Sara Bloom

From: West, Ryan@Waterboards <Ryan.West@waterboards.ca.gov>
Sent: Friday, July 21, 2023 12:36 PM
To: WB-RB5F-Records; Sara Bloom
Subject: PRA Request #755
Attachments: PRA_755_ILRP_Data.xlsx; RR#755_7-19-23_Moore Twining.pdf

In regard to your request for information for the parcels listed below:

Daylight Legacy Solar Project - Avenal Cutoff Road & Laurel Avenue Stratford, California

026-010-028-000
026-300-031-000
026-300-032-000
026-300-043-000
026-300-044-000
026-300-033-000
026-320-002-000
026-320-003-000
026-010-027-000
026-010-035-000
026-010-043-000
026-010-009-000
024-026-033-000

These properties are farmed commercially and are subject to regulation under the Central Valley Water Board's Irrigated Lands Regulatory Program (ILRP) General Order R5-2014-0001. The properties are currently enrolled under multiple member IDs with the Westlands Water Quality Coalition which is an intermediary between commercial farmers and the Central Valley Water Board.

Central Valley Water Board staff have identified the following information which may be responsive:

(1) Member enrollment information from the referenced Coalition's annual Membership List submittal (see attached).

Groundwater quality data, if available, can be accessed via the GeoTracker portal (https://geotracker.waterboards.ca.gov/). In the GeoTracker Map, select "choose more sites" from the map legend, and then choose permitted facilities, then select Irrigated Lands Regulatory Program Sites. For assistance please contact Ryan West (contact information below).

Thank you,
Ryan K. West
Engineering Geologist
Irrigated Lands Regulatory Program
Central Valley Regional Water Quality Control Board
1685 E Street
Fresno, CA 93706
(559) 445-6188

ryan.west@waterboards.ca.gov

APPENDIX D

EDR REPORT

Westland Solar Park
Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266

Inquiry Number: 07385289.10r
August 02, 2023

EDR Area / Corridor Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Mapped Sites Summary	2
Key Map	2
Map Findings Summary	3
Focus Maps	8
Map Findings	36
Orphan Summary	OR-1
Government Records Searched/Data Currency Tracking	GR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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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.

SUBJECT PROPERTY INFORMATION

ADDRESS

AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/24/2023 has revealed that there is 1 ENVIROSTOR site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
AVENAL AND LINCOLN A Facility Id: 16450007 Status: Refer: Other Agency	28TH AVE AND LINCOLN	NW 1/8 - 1/4 (0.134 mi.)	5 / 6	45

EXECUTIVE SUMMARY

Lists of state and tribal registered storage tanks

AST: Aboveground Petroleum Storage Tank Facilities

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SHAMROCK FARMING	***28088 AVENAL CUT-OFF***	***NW 0 - 1/8 (0.032 mi.)***	***A1 / 6***	***35***
Database: AST, Date of Government Version: 07/06/2016				
AZCAL MANAGEMENT COM	28088 AVENAL CUTOFF	NW 0 - 1/8 (0.032 mi.)	A3 / 6	39
Database: AST, Date of Government Version: 07/06/2016				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: California Environmental Reporting System Hazardous Waste

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/17/2023 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
AZCAL MANAGEMENT COM	***28088 AVENAL CUTOFF***	***NW 0 - 1/8 (0.032 mi.)***	***A4 / 6***	***40***
ESAJIAN FARMING COMP	***AVENAL CUT-OFF RD &***	***NW 1/8 - 1/4 (0.190 mi.)***	***6 / 6***	***46***

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SHAMROCK FARMING	***28088 AVENAL CUT-OFF***	***NW 0 - 1/8 (0.032 mi.)***	***A1 / 6***	***35***
Status: A				
Tank Status: A				
Comp Number: 205000				

CERS TANKS: California Environmental Reporting System (CERS) Tanks

A review of the CERS TANKS list, as provided by EDR, and dated 04/17/2023 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
AZCAL MANAGEMENT COM	***28088 AVENAL CUTOFF***	***NW 0 - 1/8 (0.032 mi.)***	***A4 / 6***	***40***

EXECUTIVE SUMMARY

CA FID UST: Facility Inventory Database

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SHAMROCK FARMING	***28088 AVENAL CUT-OFF***	***NW 0 - 1/8 (0.032 mi.)***	***A1 / 6***	***35***
Facility Id: 16000665				
Status: A				

Other Ascertainable Records

FUDS: Formerly Used Defense Sites

A review of the FUDS list, as provided by EDR, and dated 05/08/2023 has revealed that there is 1 FUDS site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
LEMOORE AUXILIARY FI		S 1/2 - 1 (0.706 mi.)	7 / 13	51

CUPA Listings: CUPA Resources List

A review of the CUPA Listings list, as provided by EDR, has revealed that there is 1 CUPA Listings site within approximately 0.25 miles of the requested target property.

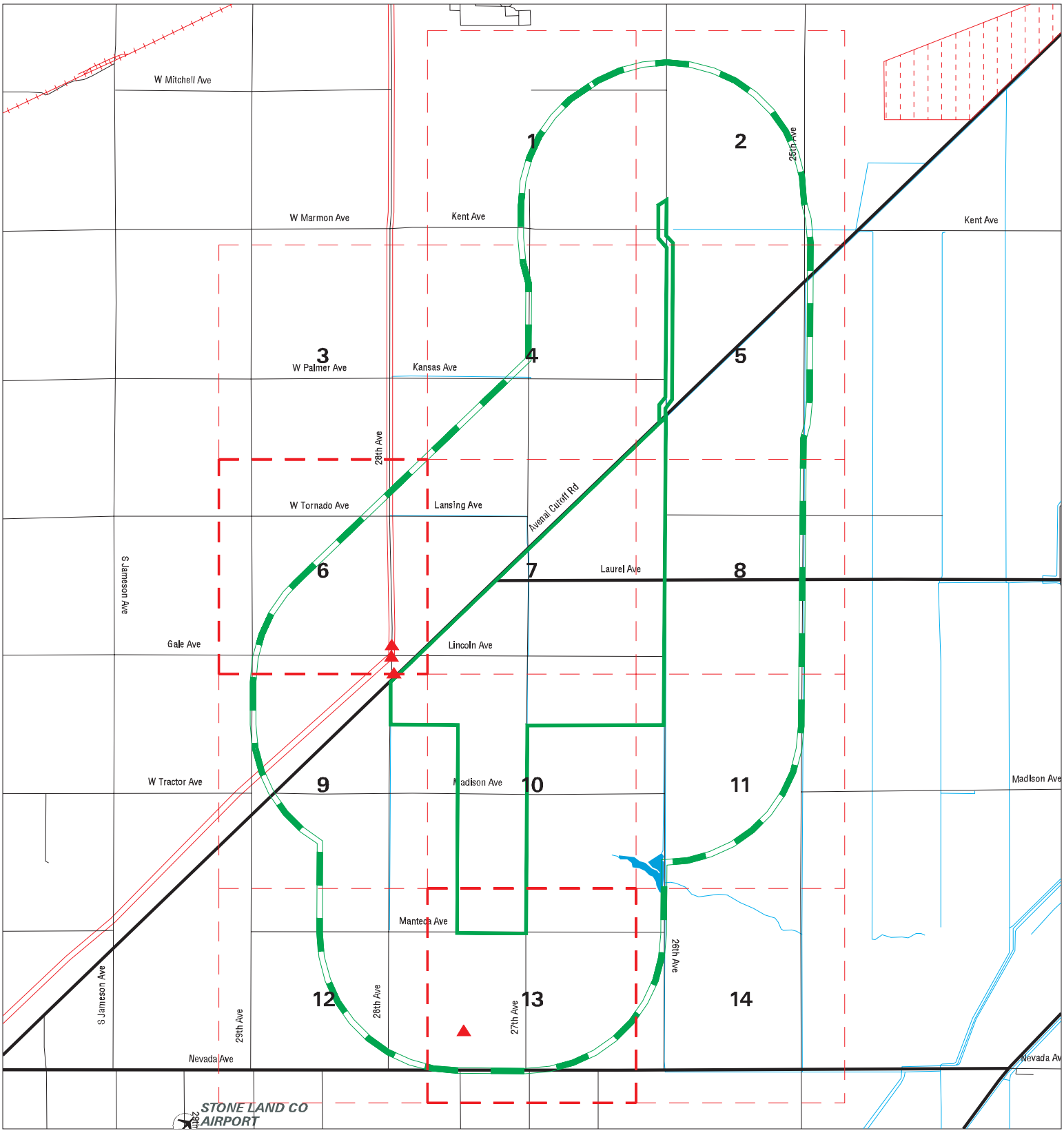
Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
SHAMROCK FARMING	28088 AVENAL CUTOFF	NW 0 - 1/8 (0.032 mi.)	A2 / 6	36
Database: CUPA KINGS, Date of Government Version: 12/03/2020				
Status: I				
Status: A				
Facility Id: FA0000849				
Facility Id: FA0001504				

MAPPED SITES SUMMARY

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 6	SHAMROCK FARMING	28088 AVENAL CUT-OFF	AST, SWEEPS UST, CA FID UST	170 0.032 NW
A2 / 6	SHAMROCK FARMING	28088 AVENAL CUTOFF	CUPA Listings	170 0.032 NW
A3 / 6	AZCAL MANAGEMENT COM	28088 AVENAL CUTOFF	AST	170 0.032 NW
A4 / 6	AZCAL MANAGEMENT COM	28088 AVENAL CUTOFF	CERS HAZ WASTE, CERS TANKS, CERS	170 0.032 NW
5 / 6	AVENAL AND LINCOLN A	28TH AVE AND LINCOLN	ENVIROSTOR	705 0.134 NW
6 / 6	ESAJIAN FARMING COMP	AVENAL CUT-OFF RD &	CERS HAZ WASTE, CERS	1004 0.190 NW
7 / 13	LEMOORE AUXILIARY FI		FUDS	3730 0.706 South

Key Map - 07385289.10r



SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23 4:37 PM

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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								
Lists of Federal NPL (Superfund) sites								
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
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
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
Federal institutional controls / engineering controls registries								
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
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	1	0	0	NR	1
Lists of state and tribal landfills and solid waste disposal facilities								
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
Lists of state and tribal leaking storage tanks								
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
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		2	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	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	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		1	1	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	TP		NR	NR	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
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	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	1	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	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	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	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	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TSCA	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
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAINING	0.250		0	0	NR	NR	NR	0
PFAS PART 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		1	0	NR	NR	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
HAZMAT	0.250		0	0	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	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
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	7	2	0	1	0	10

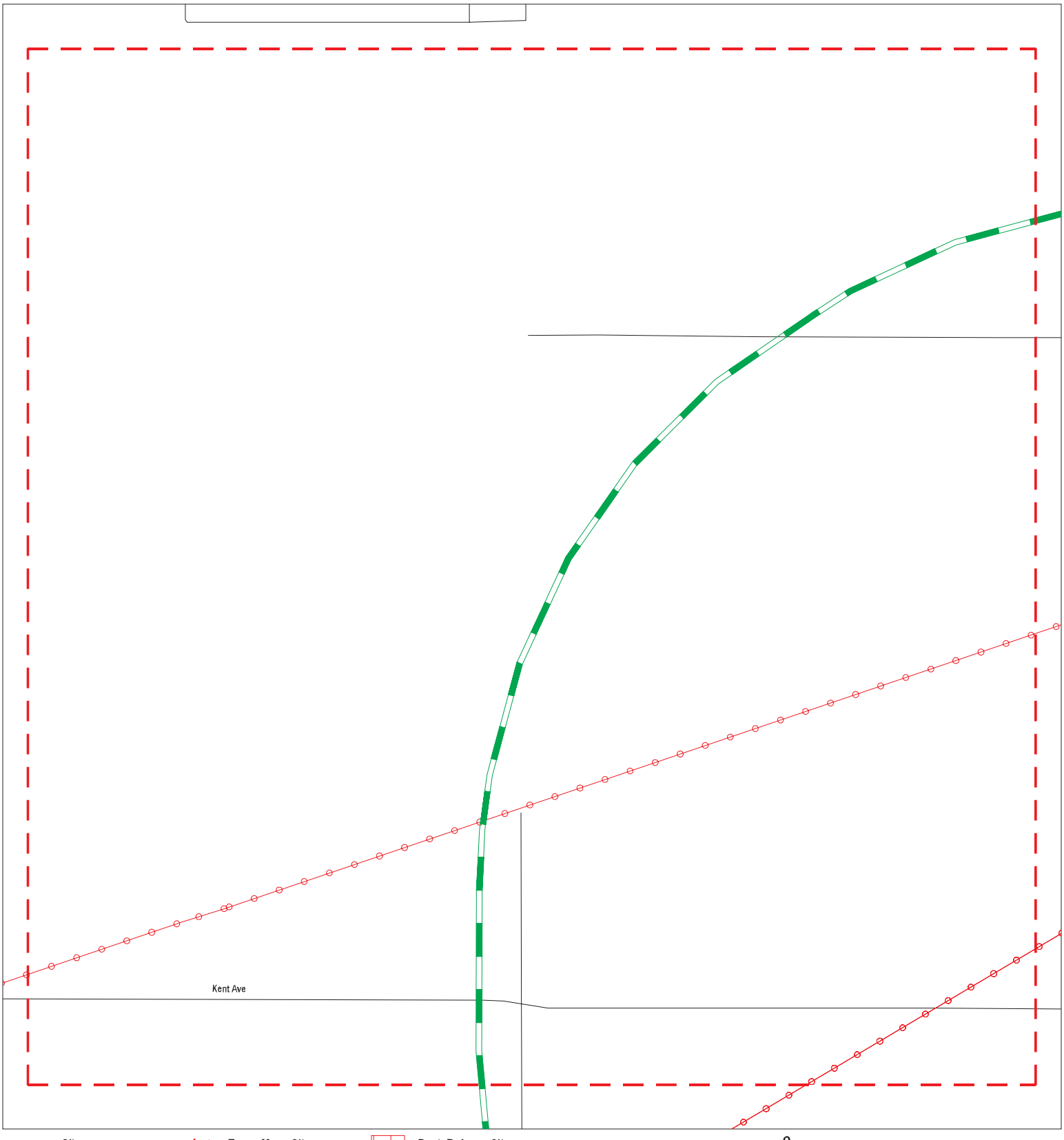
NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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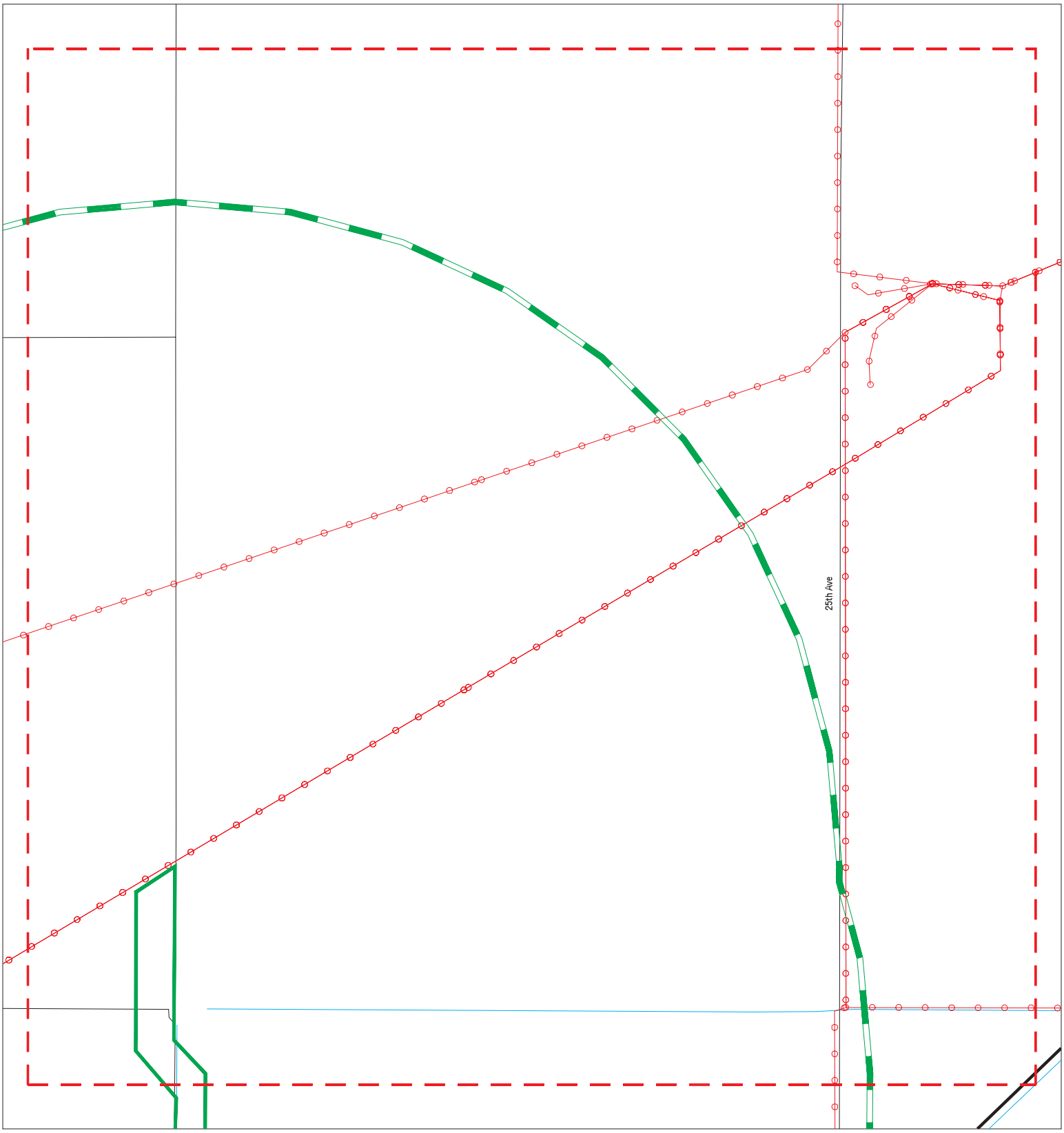
MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 2 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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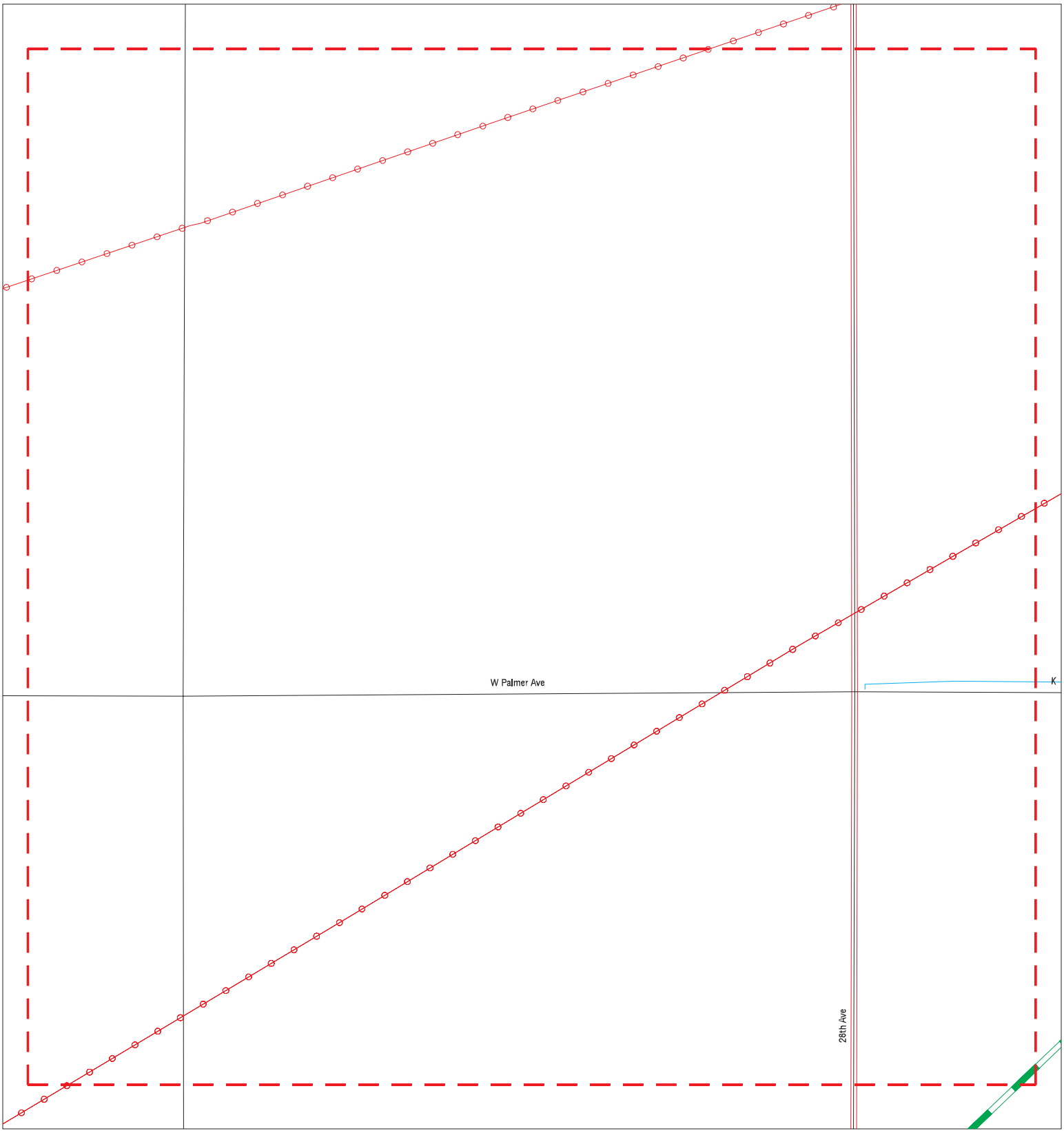
MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 3 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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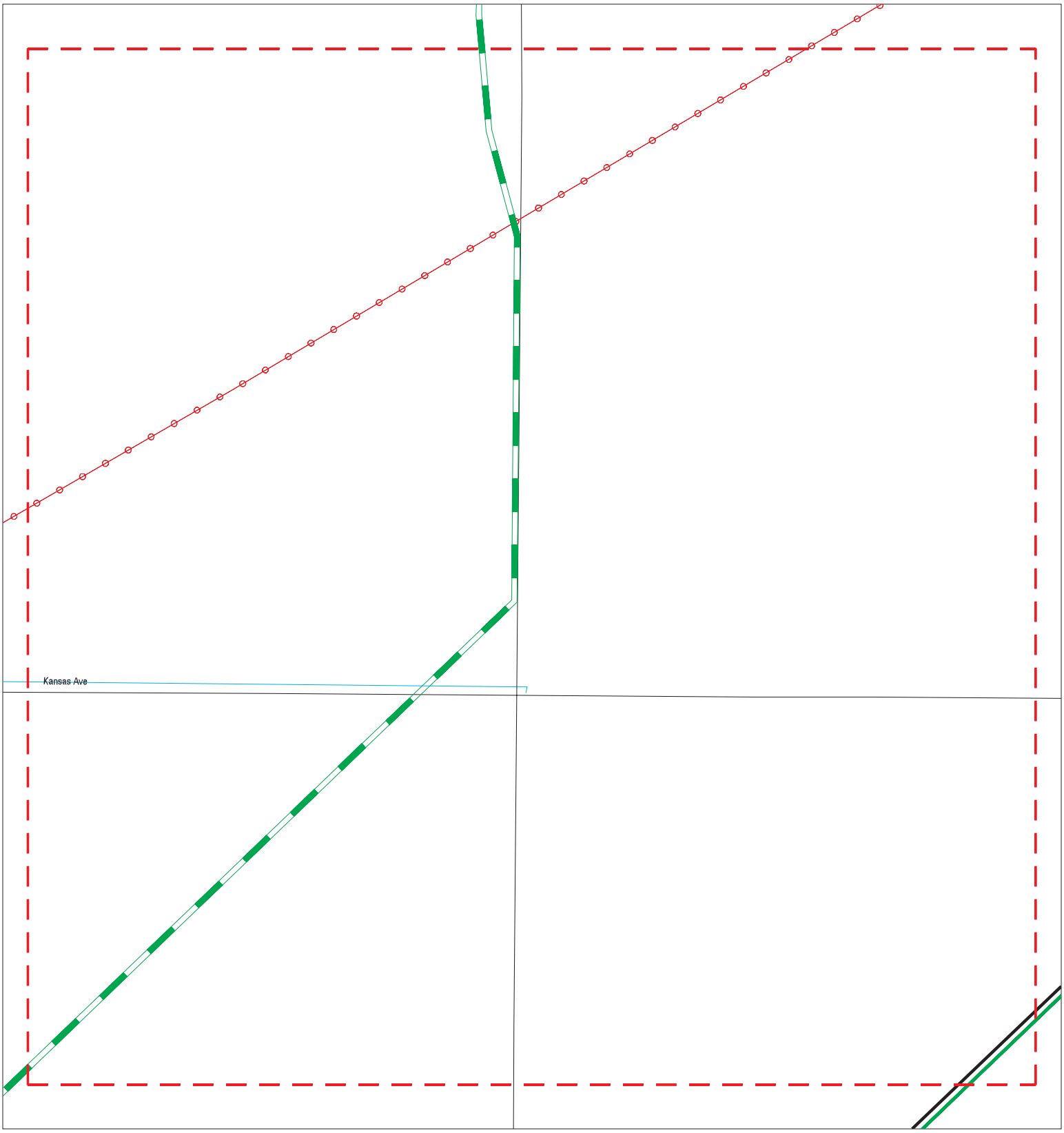
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 4 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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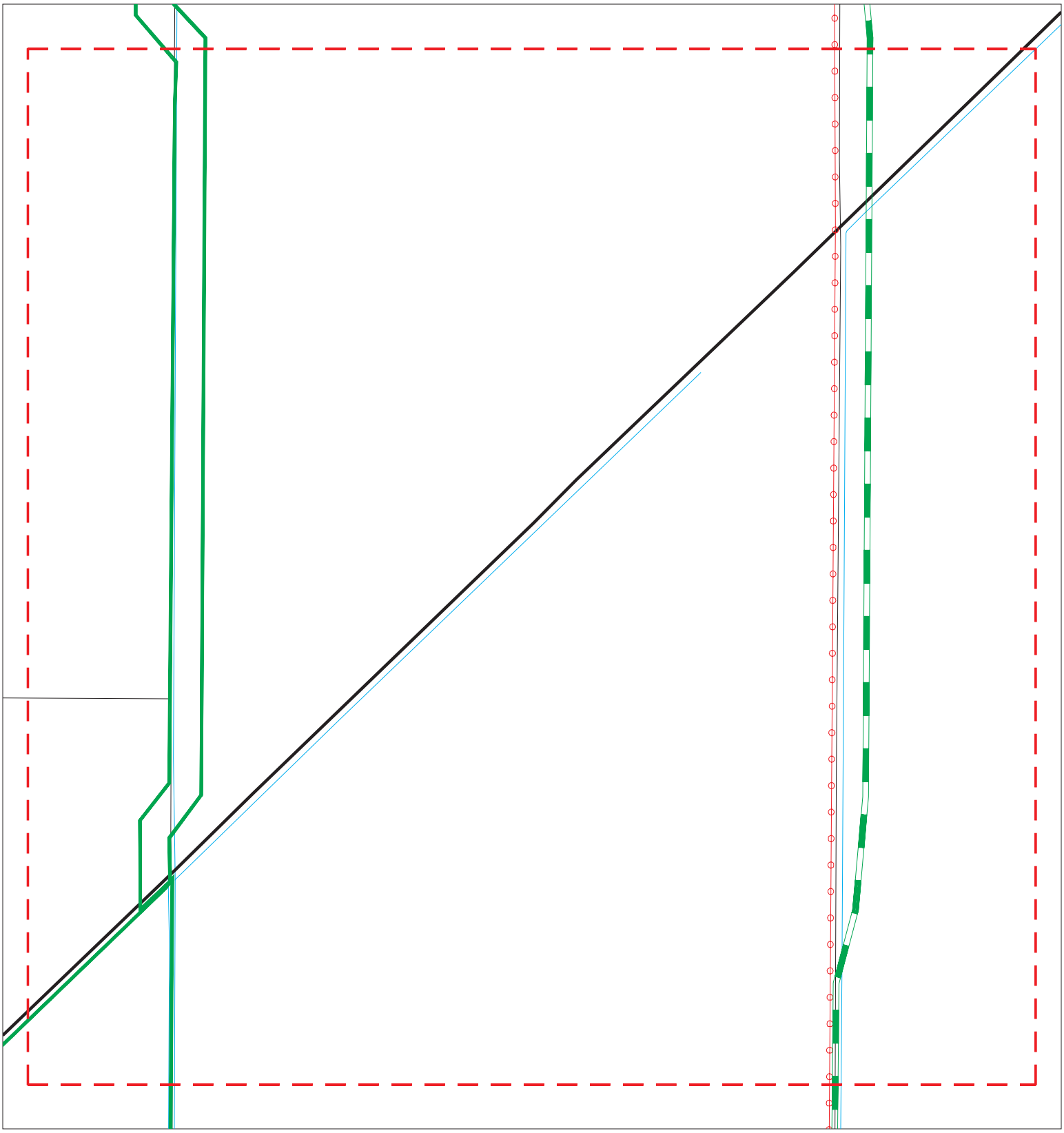
MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 5 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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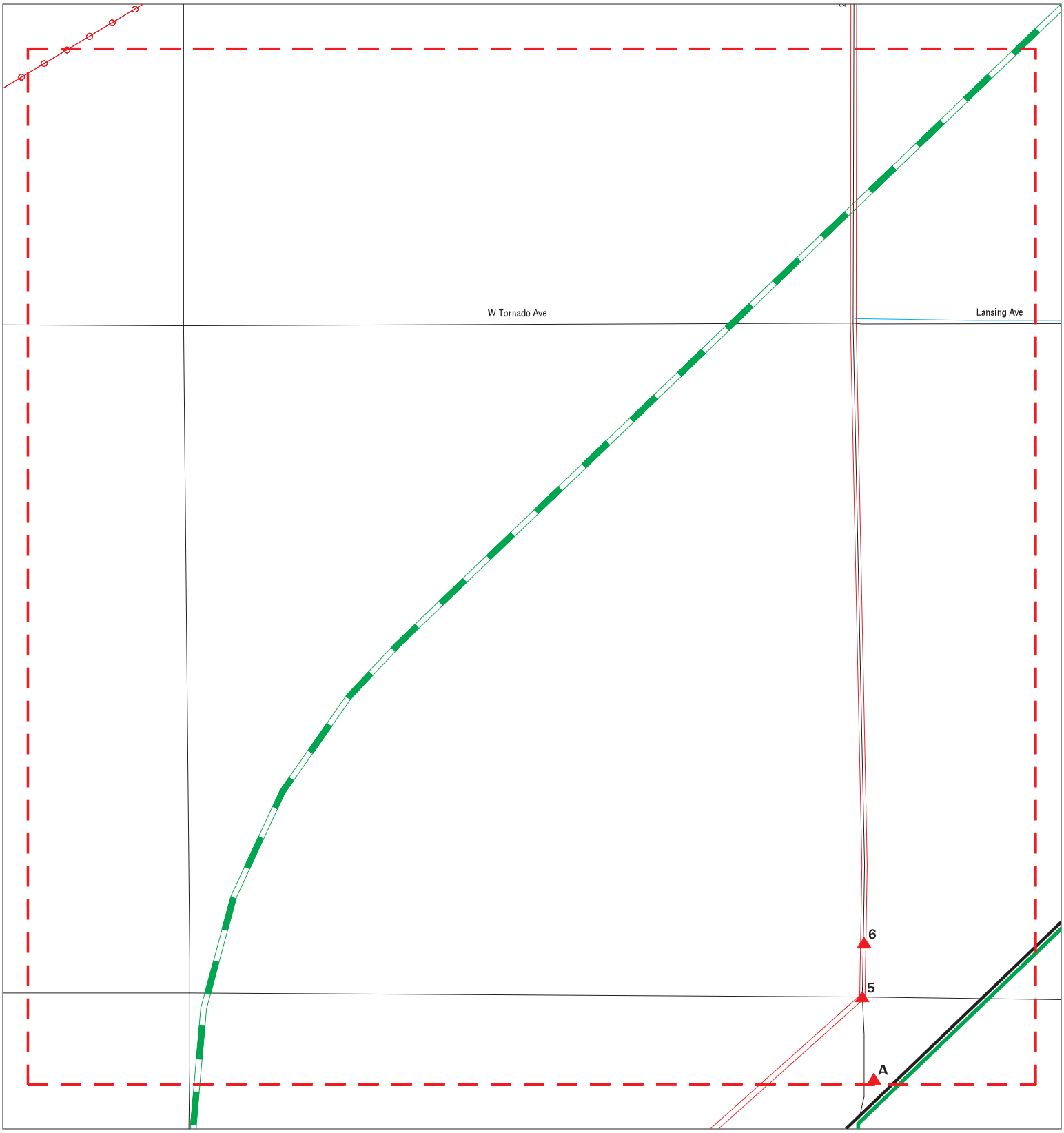
MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 6 - 07385289.10r



SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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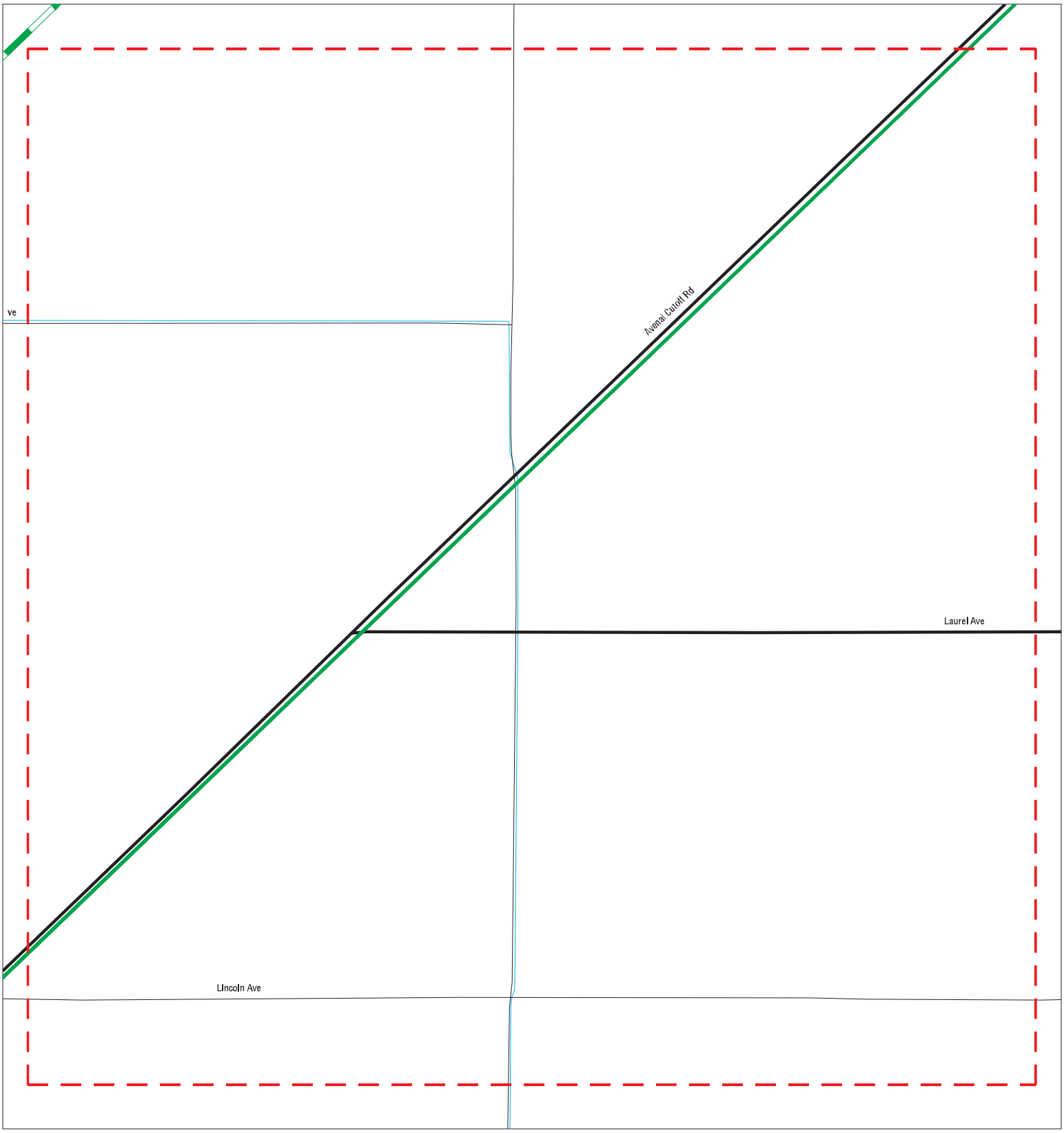
MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
A1 / 6	SHAMROCK FARMING	28088 AVENAL CUT-OFF	AST, SWEEPS UST, CA FID UST	170	0.032	NW
A2 / 6	SHAMROCK FARMING	28088 AVENAL CUTOFF	CUPA Listings	170	0.032	NW
A3 / 6	AZCAL MANAGEMENT COM	28088 AVENAL CUTOFF	AST	170	0.032	NW
A4 / 6	AZCAL MANAGEMENT COM	28088 AVENAL CUTOFF	CERS HAZ WASTE, CERS TANKS, CERS	170	0.032	NW
5 / 6	AVENAL AND LINCOLN A	28TH AVE AND LINCOLN	ENVIROSTOR	705	0.134	NW
6 / 6	ESAJIAN FARMING COMP	AVENAL CUT-OFF RD &	CERS HAZ WASTE, CERS	1004	0.190	NW

Focus Map - 7 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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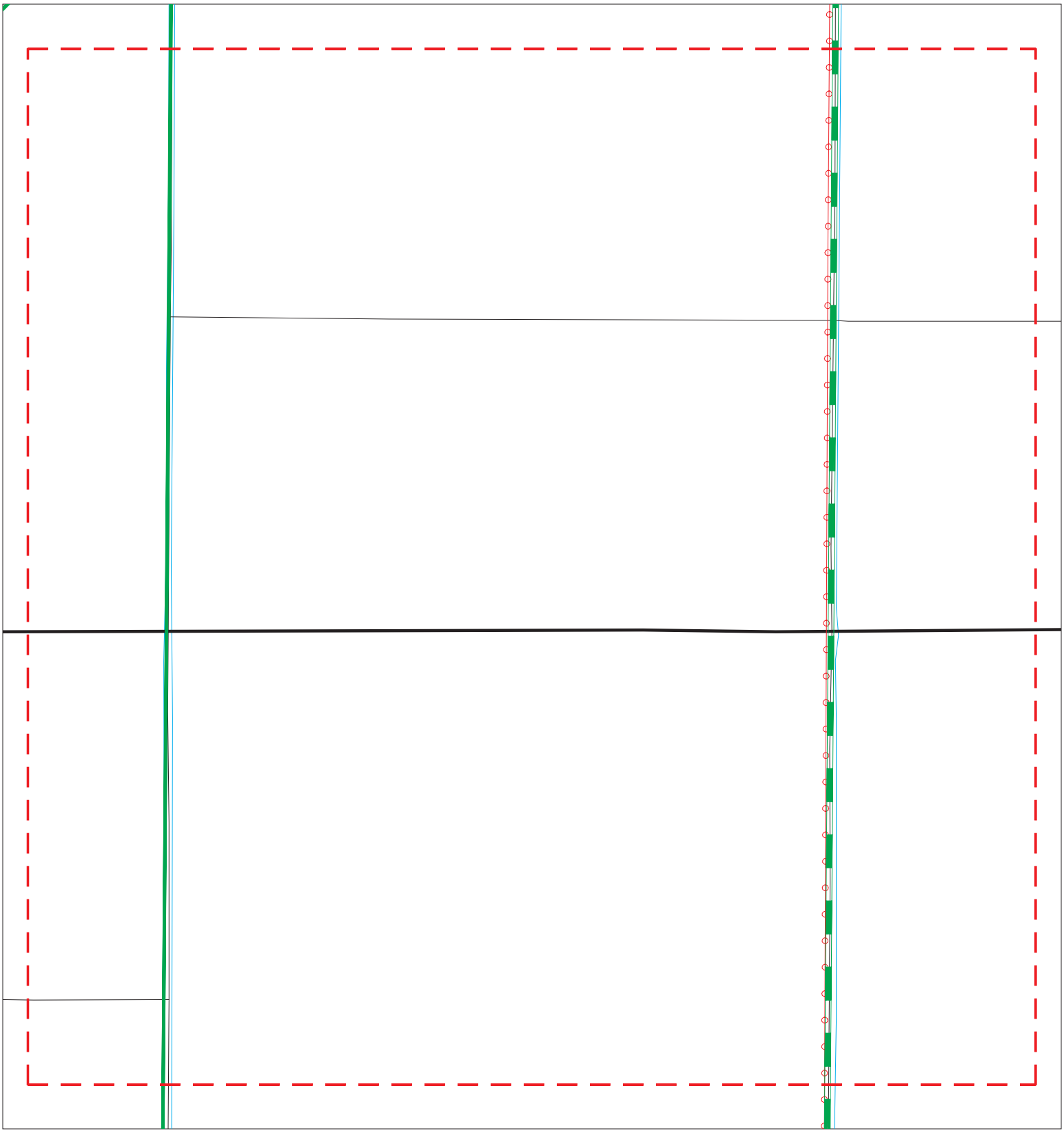
MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 8 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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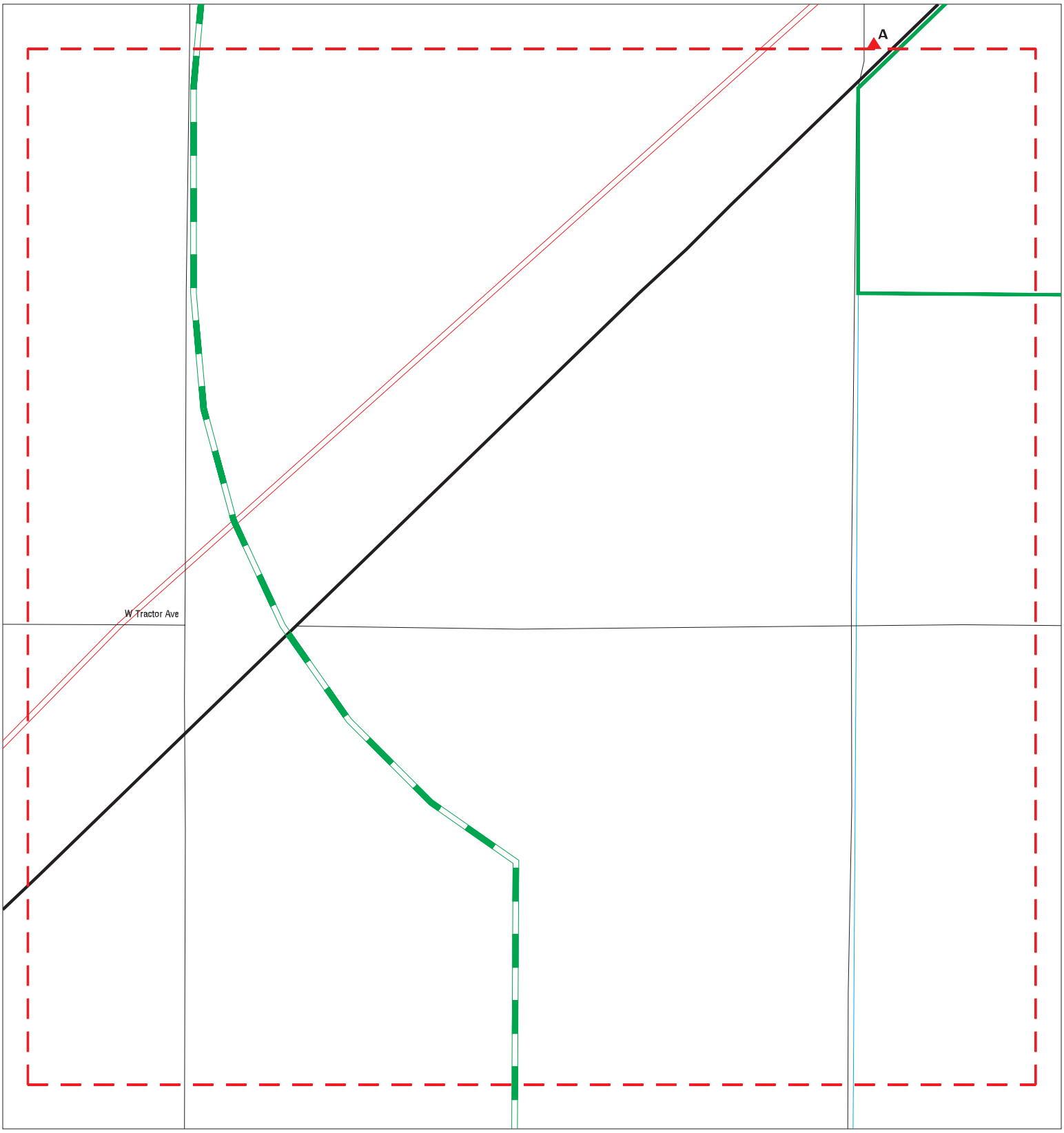
MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 9 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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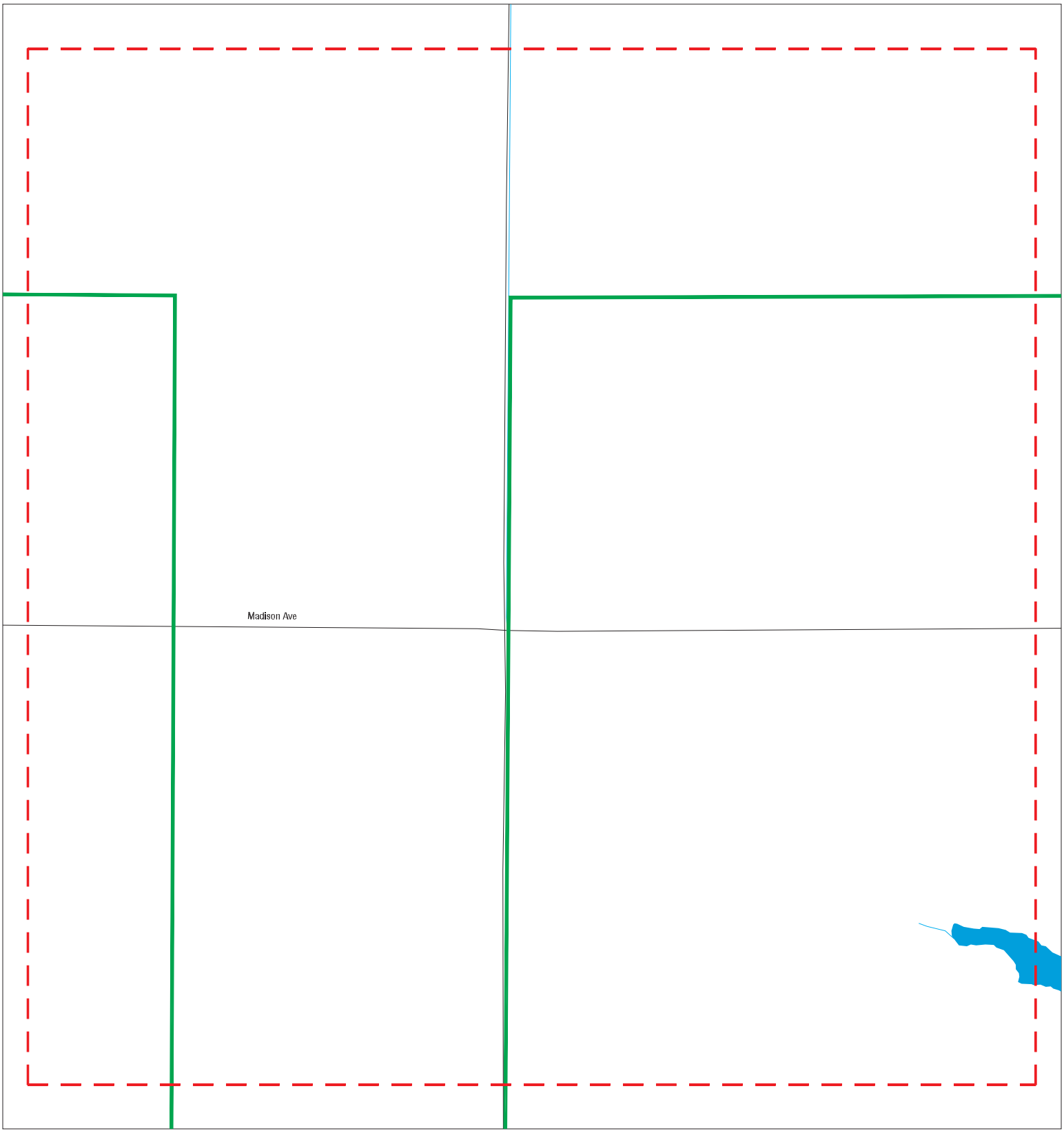
MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 10 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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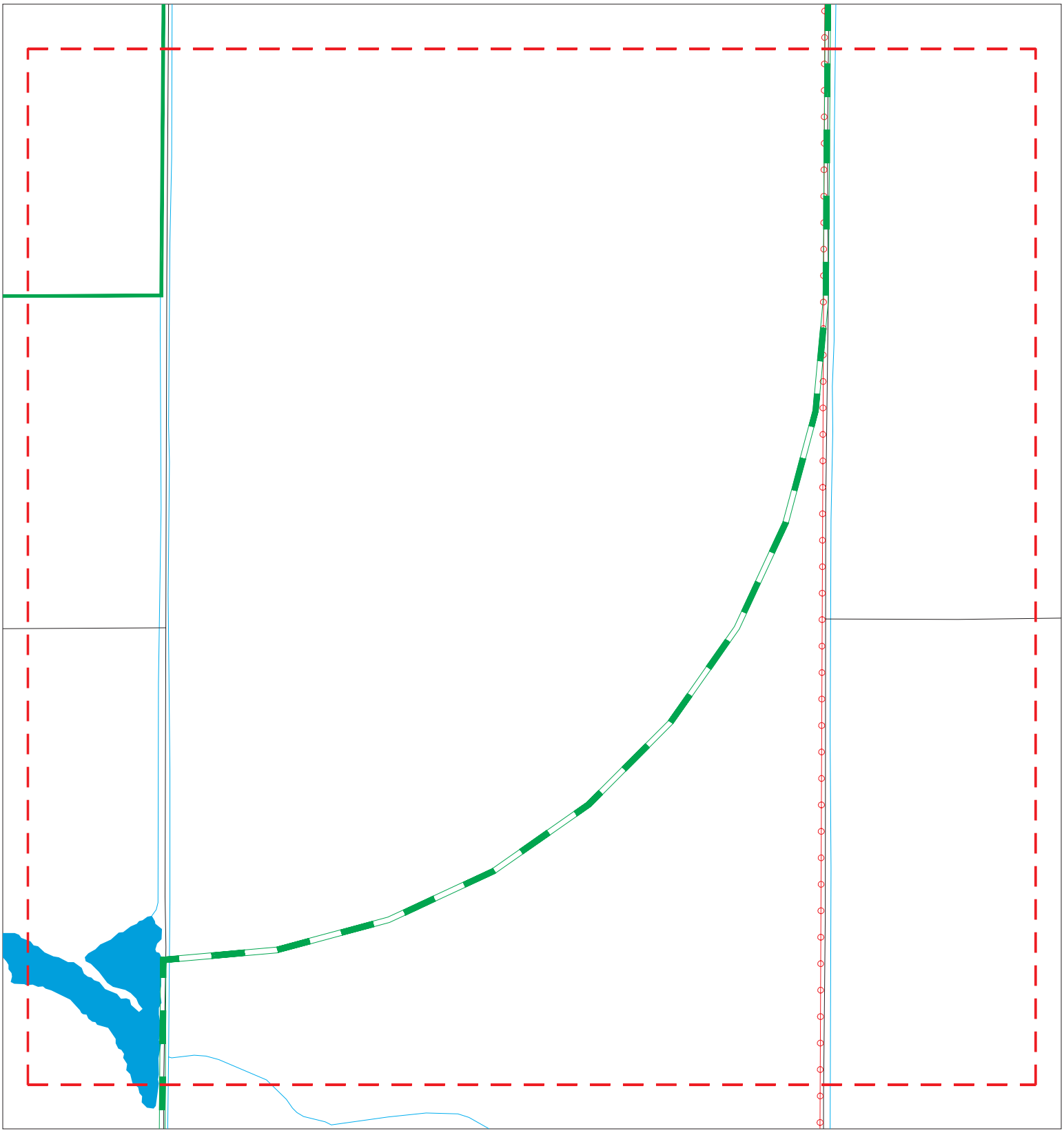
MAPPED SITES SUMMARY - FOCUS MAP 10

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 11 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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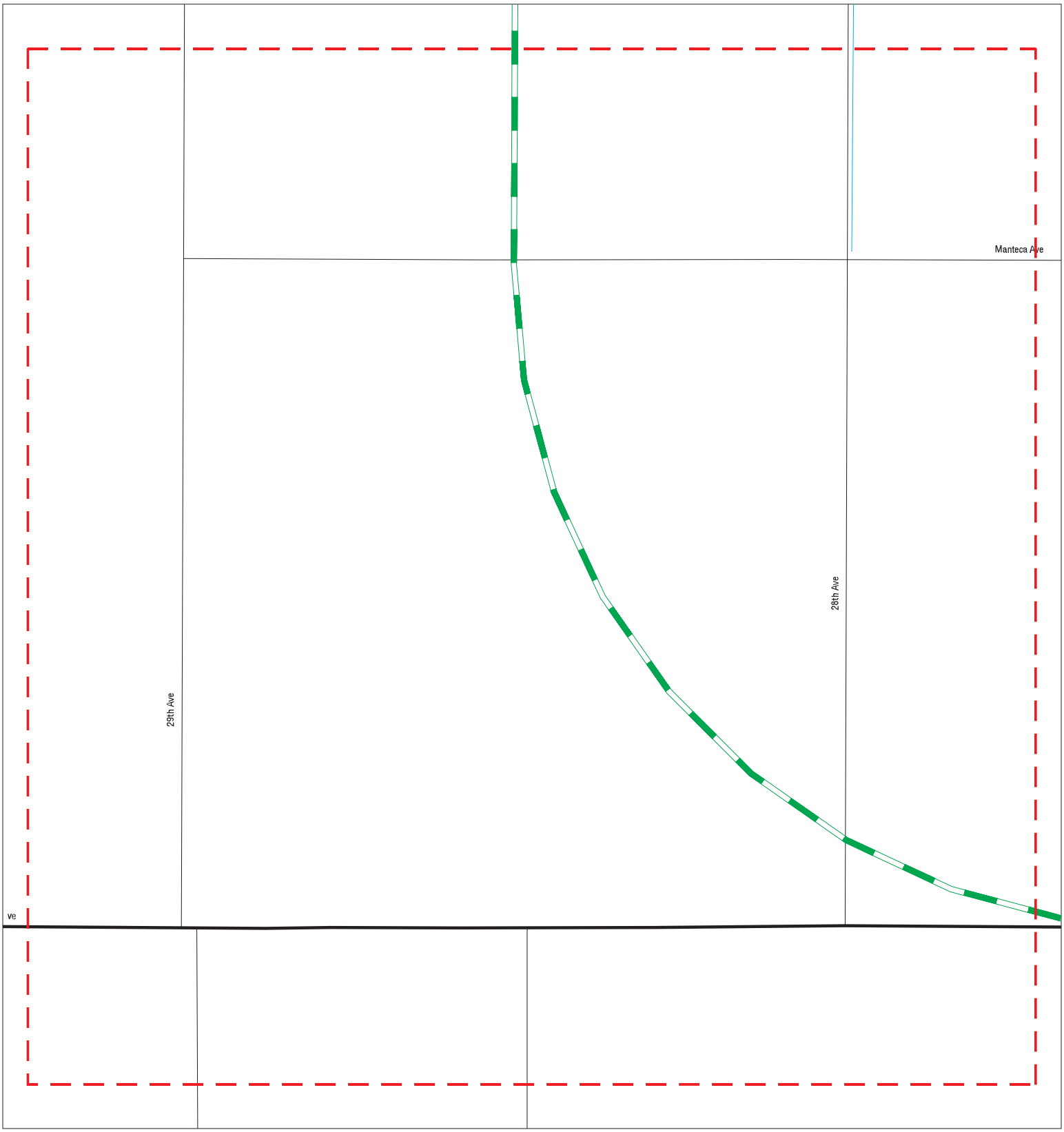
MAPPED SITES SUMMARY - FOCUS MAP 11

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 12 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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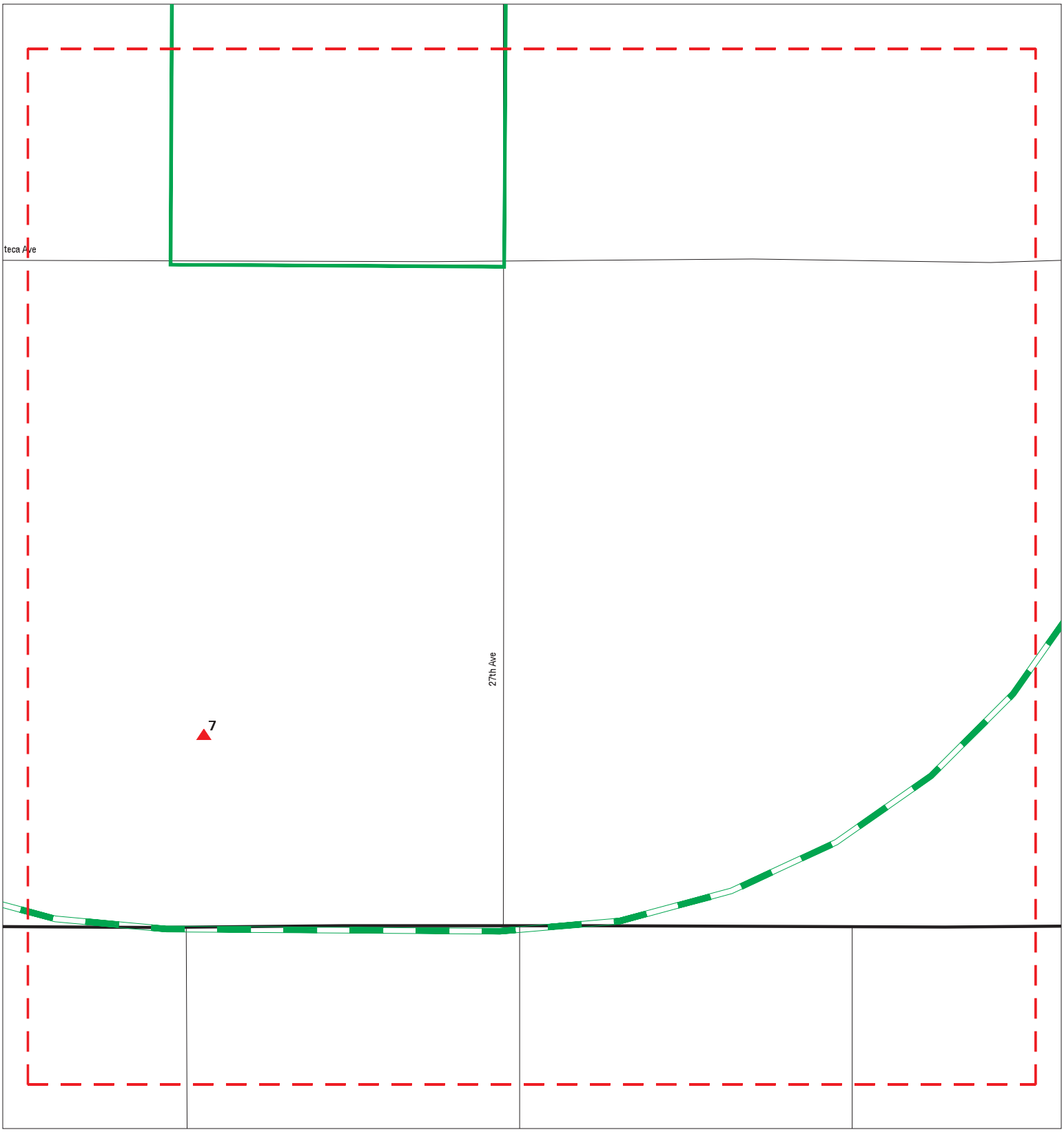
MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 13 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: Westland Solar Park	CLIENT: MooreTwining Associates, Inc.
ADDRESS: Avenal Cutoff Road & Laurel Ave	CONTACT: Sara Bloom
CITY/STATE: Stratford CA	INQUIRY #: 07385289.10r
ZIP: 93266	DATE: 08/02/23

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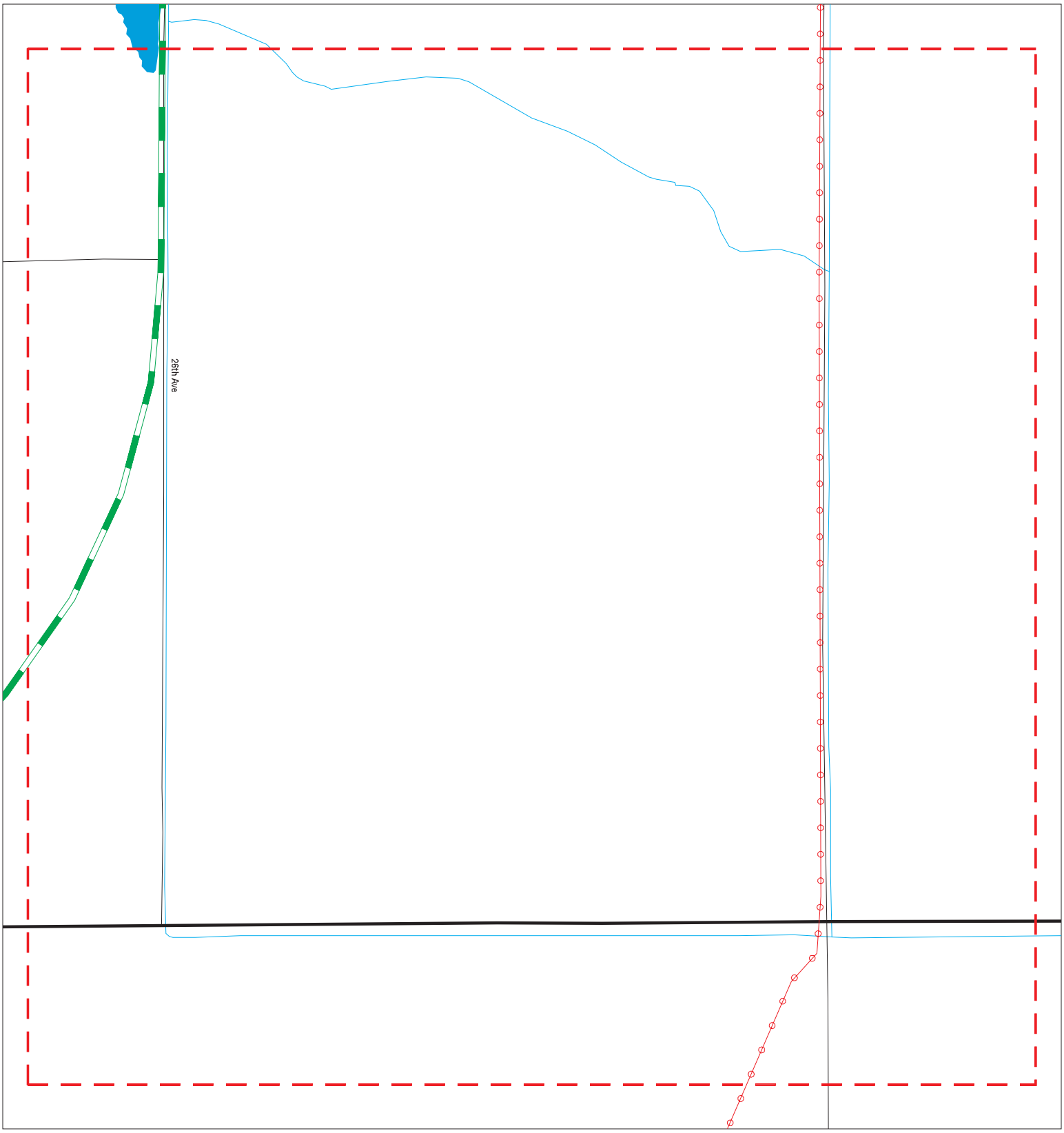
MAPPED SITES SUMMARY - FOCUS MAP 13

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
7 / 13	LEMOORE AUXILIARY FI		FUDS	3730 0.706 South

Focus Map - 14 - 07385289.10r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Areas of Concern
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME:	Westland Solar Park	CLIENT:	MooreTwining Associates, Inc.
ADDRESS:	Avenal Cutoff Road & Laurel Ave	CONTACT:	Sara Bloom
CITY/STATE:	Stratford CA	INQUIRY #:	07385289.10r
ZIP:	93266	DATE:	08/02/23

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MAPPED SITES SUMMARY - FOCUS MAP 14

Target Property:
AVENAL CUTOFF ROAD & LAUREL AVE
STRATFORD, CA 93266

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

A1
NW
< 1/8
0.032 mi.
170 ft.

SHAMROCK FARMING
28088 AVENAL CUT-OFF RD
LEMOORE, CA 93245

Site 1 of 4 in cluster A

AST
SWEEPS UST
CA FID UST

S101582563
N/A

Actual:
256 ft.

Focus Map:
6

AST:

Name:	SHAMROCK FARMING
Address:	28088 AVENAL CUTOFF
City/Zip:	LEMOORE,
Certified Unified Program Agencies:	Kings
Owner:	SHAMROCK FARMING
Total Gallons:	36,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

SWEEPS UST:

Name:	SHAMROCK FARMING CO
Address:	28088 AVENAL CUT-OFF RD
City:	LEMOORE
Status:	Active
Comp Number:	205000
Number:	2
Board Of Equalization:	44-006681
Referral Date:	04-16-93
Action Date:	06-10-93
Created Date:	01-05-90
Owner Tank Id:	1
SWRCB Tank Id:	16-000-205000-000001
Tank Status:	A
Capacity:	12000
Active Date:	04-16-93
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

SHAMROCK FARMING (Continued) **S101582563**

Name:	SHAMROCK FARMING CO
Address:	28088 AVENAL CUT-OFF RD
City:	LEMOORE
Status:	Active
Comp Number:	205000
Number:	2
Board Of Equalization:	44-006681
Referral Date:	04-16-93
Action Date:	06-10-93
Created Date:	01-05-90
Owner Tank Id:	2
SWRCB Tank Id:	16-000-205000-000002
Tank Status:	A
Capacity:	12000
Active Date:	04-16-93
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	16000665
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2099473374
Mail To:	Not reported
Mailing Address:	28088 AVENAL CUT-OFF RD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LEMOORE 93245
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

A2 **SHAMROCK FARMING** **CUPA Listings** **S110761523**
NW **28088 AVENAL CUTOFF RD** **N/A**
< 1/8 **LEMOORE, CA 93245**
0.032 mi.
170 ft. **Site 2 of 4 in cluster A**

Actual:
256 ft.

Focus Map:
6

CUPA KINGS:

Name:	SHAMROCK FARMING
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93245
Region:	KING
Facility Id:	FA0000849
Status:	I
PE:	1901
Mailing Address 1:	STAR ROUTE 2, BOX 125
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	InActive

SHAMROCK FARMING (Continued) **S110761523**

Mailing Name: PATRICK T SHANNON

Name: SHAMROCK FARMING
Address: 28088 AVENAL CUTOFF RD
City,State,Zip: LEMOORE, CA 93245
Region: KING
Facility Id: FA0000849
Status: I
PE: 2110
Mailing Address 1: STAR ROUTE 2, BOX 125
Mailing State: CA
Mailing Zip: 93245
Decode of Fstatus: InActive
Mailing Name: PATRICK T SHANNON

Name: SHAMROCK FARMING
Address: 28088 AVENAL CUTOFF RD
City,State,Zip: LEMOORE, CA 93245
Region: KING
Facility Id: FA0000849
Status: I
PE: 2112
Mailing Address 1: STAR ROUTE 2, BOX 125
Mailing State: CA
Mailing Zip: 93245
Decode of Fstatus: InActive
Mailing Name: PATRICK T SHANNON

Name: SHAMROCK FARMING
Address: 28088 AVENAL CUTOFF RD
City,State,Zip: LEMOORE, CA 93245
Region: KING
Facility Id: FA0000849
Status: I
PE: 2113
Mailing Address 1: STAR ROUTE 2, BOX 125
Mailing State: CA
Mailing Zip: 93245
Decode of Fstatus: InActive
Mailing Name: PATRICK T SHANNON

Name: SHAMROCK FARMING
Address: 28088 AVENAL CUTOFF RD
City,State,Zip: LEMOORE, CA 93245
Region: KING
Facility Id: FA0000849
Status: I
PE: 2230
Mailing Address 1: STAR ROUTE 2, BOX 125
Mailing State: CA
Mailing Zip: 93245
Decode of Fstatus: InActive
Mailing Name: PATRICK T SHANNON

Name: SHAMROCK FARMING
Address: 28088 AVENAL CUTOFF RD
City,State,Zip: LEMOORE, CA 93245

SHAMROCK FARMING (Continued) **S110761523**

Region:	KING
Facility Id:	FA0000849
Status:	I
PE:	2300
Mailing Address 1:	STAR ROUTE 2, BOX 125
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	InActive
Mailing Name:	PATRICK T SHANNON

Name:	AZCAL MANAGEMENT CO
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93266
Region:	KING
Facility Id:	FA0001504
Status:	I
PE:	1901
Mailing Address 1:	555 PHILAN CIRCLE
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	InActive
Mailing Name:	AZCAL MANAGEMENT CO

Name:	AZCAL MANAGEMENT CO
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93266
Region:	KING
Facility Id:	FA0001504
Status:	A
PE:	2110
Mailing Address 1:	555 PHILAN CIRCLE
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	Active
Mailing Name:	AZCAL MANAGEMENT CO

Name:	AZCAL MANAGEMENT CO
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93266
Region:	KING
Facility Id:	FA0001504
Status:	A
PE:	2112
Mailing Address 1:	555 PHILAN CIRCLE
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	Active
Mailing Name:	AZCAL MANAGEMENT CO

Name:	AZCAL MANAGEMENT CO
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93266
Region:	KING
Facility Id:	FA0001504
Status:	I
PE:	2113
Mailing Address 1:	555 PHILAN CIRCLE

SHAMROCK FARMING (Continued) **S110761523**

Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	InActive
Mailing Name:	AZCAL MANAGEMENT CO
Name:	AZCAL MANAGEMENT CO
Address:	28088 AVENAL CUTOFF RD
City,State,Zip:	LEMOORE, CA 93266
Region:	KING
Facility Id:	FA0001504
Status:	A
PE:	2230
Mailing Address 1:	555 PHILAN CIRCLE
Mailing State:	CA
Mailing Zip:	93245
Decode of Fstatus:	Active
Mailing Name:	AZCAL MANAGEMENT CO

A3 **AZCAL MANAGEMENT COMPANY** **AST** **A100417417**
NW **28088 AVENAL CUTOFF** **N/A**
< 1/8 **STRATFORD, CA 93266**
0.032 mi.
170 ft. **Site 3 of 4 in cluster A**

Actual:
256 ft.

Focus Map:
6

AST:

Name:	AZCAL MANAGEMENT COMPANY
Address:	28088 AVENAL CUTOFF
City/Zip:	STRATFORD,93266
Certified Unified Program Agencies:	Not reported
Owner:	Ted Sheely
Total Gallons:	Not reported
CERSID:	10470970
Facility ID:	FA0001504
Business Name:	Azcal Management Company
Phone:	559-947-3355
Fax:	559-947-3356
Mailing Address:	555 Philan Cir.
Mailing Address City:	Lemoore
Mailing Address State:	CA
Mailing Address Zip Code:	93245
Operator Name:	Ted Sheely
Operator Phone:	559-816-1201
Owner Phone:	559-816-1201
Owner Mail Address:	555 Philan Cir.
Owner State:	CA
Owner Zip Code:	93245
Owner Country:	United States
Property Owner Name:	Ted Sheely
Property Owner Phone:	559-947-3355
Property Owner Mailing Address:	555 Philan Cir.
Property Owner City:	Lemmore
Property Owner Stat :	CA
Property Owner Zip Code:	93245
Property Owner Country:	United States
EPAID:	248590

A4 **AZCAL MANAGEMENT COMPANY** **CERS HAZ WASTE** **S121771353**
NW **28088 AVENAL CUTOFF** **CERS TANKS** **N/A**
< 1/8 **STRATFORD, CA 93266** **CERS**
0.032 mi.
170 ft. **Site 4 of 4 in cluster A**

Actual:
256 ft.

Focus Map:
6

CERS HAZ WASTE:

Name:	AZCAL MANAGEMENT COMPANY
Address:	28088 AVENAL CUTOFF
City,State,Zip:	STRATFORD, CA 93266
Site ID:	387377
CERS ID:	10470970
CERS Description:	Hazardous Chemical Management

Name:	AZCAL MANAGEMENT COMPANY
Address:	28088 AVENAL CUTOFF
City,State,Zip:	STRATFORD, CA 93266
Site ID:	387377
CERS ID:	10470970
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	AZCAL MANAGEMENT COMPANY
Address:	28088 AVENAL CUTOFF
City,State,Zip:	STRATFORD, CA 93266
Site ID:	387377
CERS ID:	10470970
CERS Description:	Aboveground Petroleum Storage

CERS:

Name:	AZCAL MANAGEMENT COMPANY
Address:	28088 AVENAL CUTOFF
City,State,Zip:	STRATFORD, CA 93266
Site ID:	387377
CERS ID:	10470970
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	387377
Site Name:	Azcal Management Company
Violation Date:	04-24-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 04/26/2018. The hazardous materials inventory must be updated to properly reflect the each petroleum lubricant (e.g. motor oil, hydraulic fluid, and pump oil) all 200 gallons each. In addition, anti-freeze (300 gallons), compressed gas NOS - 280 CF, acetylene (5 x 125 CF), oxygen - 3 x 250 CF, 500 gal. waste oil, and used oil filters (2 x 100 lbs.) must be included on the chemical inventory and site map.
Violation Division:	Kings County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	387377
Site Name:	Azcal Management Company

AZCAL MANAGEMENT COMPANY (Continued) **S121771353**

Violation Date: 04-24-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 04/26/2018. The facility site map requires updating to properly reflect the hazardous materials inventory.
Violation Division: Kings County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 03-06-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: An audit/insection of this program two CalARP program for one ton chlorine cylinders used in remote agricultural locations as a irrigation water additive occurred today. The systems are relatively simple and discharge chlorine only under vacuum demand. Regulators and key components are rebuilt annually prior to the start of the season. Tanks are typically deployed with regulators from March to October only. Sites are unmanned and secured with locked fencing. Warning signs are posted and an eye wash bottle is on site...(See pdf on file for full text)
Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-24-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: An audit/inspection was done with Erik Balling (CWS) and Marty Rhodes for the program 2 Cal Arp for this facility. There are one ton cylinders around the county in remote areas for the irrigation of water. CWS maintains and trains the employees (6-7) for the chlorine cylinders. The tanks are fenced up and observed with eye wash bottle and safety signs. CWS maintains all tank before the start of the season (March). Last training for the employees occurred on 5-5-16. The compliance audit was submitted by email on March 2017. No incidents occurred in the past 5 years. The full 5 year RMP review, Hazard analysis and any change in operating procedures will be due in Nov 2017. The new RMP should include the office as well. Thank you
Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Hazardous waste storage was observed to be satisfactory at this time. Safety-Kleen is the operator’s current hazardous waste hauler. Hazardous waste is being routinely collected every 90 days.
Eval Division: Kings County Environmental Health
Eval Program: HW

AZCAL MANAGEMENT COMPANY (Continued) **S121771353**

Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Aboveground storage tank storage of petroleum based products is satisfactory at this time. No storage tank release issues were observed.
Eval Division: Kings County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-06-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Fuel and oil tanks and hoses appear in good condition. Except for used oil, the tanks are not contained.
Eval Division: Kings County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-06-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Used oil is contained and is collected by Evergreen. Housekeeping was satisfactory and records are maintained.
Eval Division: Kings County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-06-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Plan is generally current in CERS. Please resubmit the inventory and map, filling in the location field with chemical locations, and changing the location of the office on the map.
Eval Division: Kings County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-24-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Safety Kleen picks up waste oil every 4 -6 months. Tank was on secondary containment and well labeled. Be sure to keep manifests for 3 years. Thank you
Eval Division: Kings County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-24-2017

AZCAL MANAGEMENT COMPANY (Continued) **S121771353**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: This facility has 2 10,000 gallon diesel tank and 1 5000g gasoline tank on site. No SPCC plan is required due to it being a farming company. Tanks were observed on secondary containment. Thank you
Eval Division: Kings County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-24-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: All information is submitted on CERS. Employee training is performed annually. CWS joins annual company and employee training to incorporate chlorine tank safety. Kings County Fire is the local emergency response team. Thank you
Eval Division: Kings County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-24-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: The chemical inventory listed on CERS is not accurate at this time. Update the chemical inventory and site map within the next 30 days.
Eval Division: Kings County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-27-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: An inspection/audit was conducted with Erik Balling from CWS for the program 2 chlorine sites for the facility. There are 5-6 remote sites in which the chlorine tanks (1 ton) each are used for irrigation purposes. The tanks are maintained by CWS and switched out 1-2 times a year depending on use. The site is equipped with eye wash bottles and all sites visited had the wind direction ribbons. The tanks are fenced up and locked and have access by trained staff only. Last training was done 5-17-2020 for 5 employees. The compliance audit is also done May 2020. No incidents were reported in the past 5 years. The next RMP due is Nov 2020. On field signature was not taken due to COVID-19. The inspection was also delayed due to Shelter-in-Place orders by the state.
Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Enforcement Action:
Site ID: 387377
Site Name: Azcal Management Company
Site Address: 28088 AVENAL CUTOFF
Site City: STRATFORD
Site Zip: 93266

AZCAL MANAGEMENT COMPANY (Continued) **S121771353**

Enf Action Date:	04-24-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Kings County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS,

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Marty Rhoads
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jeanette Hanes
Entity Title:	Not reported
Affiliation Address:	555 Philan Cir.
Affiliation City:	Lemoore
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93245
Affiliation Phone:	,

Affiliation Type Desc:	Operator
Entity Name:	Ted Sheely
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 816-1201,

Affiliation Type Desc:	Property Owner
Entity Name:	Ted Sheely
Entity Title:	Not reported
Affiliation Address:	555 Philan Cir.
Affiliation City:	Lemmore
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93245
Affiliation Phone:	(559) 947-3355,

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	555 Philan Cir.
Affiliation City:	Lemoore
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93245

AZCAL MANAGEMENT COMPANY (Continued) **S121771353**

Affiliation Phone: ,

Affiliation Type Desc: CUPA District
Entity Name: Kings County Env Health
Entity Title: Not reported
Affiliation Address: 330 Campus Drive
Affiliation City: Hanford
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93230
Affiliation Phone: (559) 584-1411,

Affiliation Type Desc: Identification Signer
Entity Name: Marty Rhoads
Entity Title: Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: Ted Sheely
Entity Title: Not reported
Affiliation Address: 555 Philan Cir.
Affiliation City: Lemoore
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93245
Affiliation Phone: (559) 816-1201,

Affiliation Type Desc: Parent Corporation
Entity Name: Azcal Management Company
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

5
NW
1/8-1/4
0.134 mi.
705 ft.

AVENAL AND LINCOLN AIRSTRIP **ENVIROSTOR** **S101480510**
28TH AVE AND LINCOLN AVE **N/A**
STRATFORD, CA 93266

Actual:
257 ft.

Focus Map:
6

ENVIROSTOR:
Name: AVENAL AND LINCOLN AIRSTRIP
Address: 28TH AVE AND LINCOLN AVE
City,State,Zip: STRATFORD, CA 93266
Facility ID: 16450007
Status: Refer: Other Agency
Status Date: 10/11/1995
Site Code: Not reported
Site Type: Historical

AVENAL AND LINCOLN AIRSTRIP (Continued) **S101480510**

Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Sacramento
Assembly:	27
Senate:	14
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	36.18111
Longitude:	-119.9608
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* EMPTY PESTICIDE CONTAINERS, 30 GALLONS OR MORE
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	16450007
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	03/20/1989
Comments:	SITE SCREENING DONE. LOW PRIORITY PRELIMINARY ASSESSMENT RECOMMENDED TO DETERMINE WASTE MANAGE- MENT PRACTICES.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	02/24/1983
Comments:	FACILITY IDENTIFIED FROM HONEYCUTT MAP.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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6 **ESAJIAN FARMING COMPANY** **CERS HAZ WASTE** **S121759760**
NW **AVENAL CUT-OFF RD & GALE AVE** **CERS** **N/A**
1/8-1/4 **STRATFORD, CA 93266**
0.190 mi.
1004 ft.

Actual:
256 ft.

Focus Map:
6

CERS HAZ WASTE:

Name:	ESAJIAN FARMING COMPANY
Address:	AVENAL CUT-OFF RD & GALE AVE
City,State,Zip:	STRATFORD, CA 93266

ESAJIAN FARMING COMPANY (Continued) **S121759760**

Site ID: 28634
CERS ID: 10479043
CERS Description: Hazardous Chemical Management

CERS:
Name: ESAJIAN FARMING COMPANY
Address: AVENAL CUT-OFF RD & GALE AVE
City,State,Zip: STRATFORD, CA 93266
Site ID: 28634
CERS ID: 10479043
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 28634
Site Name: Esajian Farming Company
Violation Date: 02-25-2020
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Please fill out the emergency contingency plan on CERS website. Use the template. All information required can be found in the Cal Arp RMP submittal. Also, change the status of "exempt" for the training requirement to "stored on site". The facility does have an emergency plan and training but is not uploaded.
Violation Division: Kings County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-01-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: An audit/Inspection was conducted with CWS (Erik Balling) for the program 2 Cal Arp site. This facility has several remote areas with Chlorine tanks around the area (Kings and Fresno County). The systems discharge chlorine under vacuum. CWS services and maintains all the systems. Only simple operations are done by employees. Employees of Esajian Farms and CWS operators are trained annually. Sites are unmanned. Eye wash bottles shall be kept in good condition at all times. CWS maintains and replaces them on a monthly basis. Hazard Review was last done in Jan 2017 with a "What if" situation. Employee training documents were reviewed. The annual audit report was done on 5/5/2016. No 5 year accident history. All full RMP submittal will be due in Sep 2017.
Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Please correct above and resubmit on CERS. Thank you.
Eval Division: Kings County Environmental Health

ESAJIAN FARMING COMPANY (Continued) **S121759760**

Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-28-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Plan is current and in CERS. Please update maps once new installations are in the reflect recent additions and deletions.
Eval Division: Kings County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-28-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Tanks at air strip no longer hold fuel. Please label as "empty" with date, and email photo to our office for confirmation.
Eval Division: Kings County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-28-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Used oil is no longer stored at this site.
Eval Division: Kings County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 04-28-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: An audit/insection of this program two CalARP program for one ton chlorine cylinders used in remote agricultural locations as an irrigation water additive occurred today. The systems are relatively simple and discharge chlorine only under vacuum demand. Regulators and key components are rebuilt annually prior to the start of the season...(see pdf on file for full comments)
Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-25-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: An audit/Inspection was conducted with CWS (Erik Balling & Tony) for the chlorine cylinders that are located through out the county for irrigation purposes. The cylinders are located inside a fenced area with eye wash observed in the three site visits that were inspected. This department recommends securing access to general public by locking the fence. Locks are provided but operators sometimes leave them unlocked. This department recommends adding this safety procedure

ESAJIAN FARMING COMPANY (Continued) **S121759760**

in the annual training session for both CWS employees and Esajian Farm employees. All maintenance and upkeep is done by CWS. CWS also trains the 2-3 employees who are responsible to handle the tanks. No emergency response would be done by this facility. It will be handed to the local Fire department. Eye wash stations were stocked. Please be sure to keep all training documentation on site. Next RMP will be due in Jan of 2022. The Hazard Review was done in Jan of 2017. It will be also [Truncated]

Eval Division: Kings County Environmental Health
Eval Program: CalARP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-01-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: CERS submittal must be done annually. Also, please see changes to inventory and capacity. Update as needed. Re-submit CERS after changing diesel capacity. Thank you All training documents and SOP's is handled by CWS.
Eval Division: Kings County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Enforcement Action:
Site ID: 28634
Site Name: Esajian Farming Company
Site Address: AVENAL CUT-OFF RD & GALE AVE
Site City: STRATFORD
Site Zip: 93266
Enf Action Date: 02-25-2020
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Kings County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS,

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: PO Box 100
Affiliation City: Lemoore
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93245
Affiliation Phone: ,

Affiliation Type Desc: Document Preparer
Entity Name: Lorenzo Contreras
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

ESAJIAN FARMING COMPANY (Continued) **S121759760**

Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Environmental Contact
Entity Name: Gary Esajian
Entity Title: Not reported
Affiliation Address: PO Box 100
Affiliation City: Lemoore
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93245
Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: Gary Esajian
Entity Title: Proprietor
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: Gary Esajian
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (559) 779-1000,

Affiliation Type Desc: CUPA District
Entity Name: Kings County Env Health
Entity Title: Not reported
Affiliation Address: 330 Campus Drive
Affiliation City: Hanford
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93230
Affiliation Phone: (559) 584-1411,

Affiliation Type Desc: Legal Owner
Entity Name: Gary Esajian
Entity Title: Not reported
Affiliation Address: PO Box 100
Affiliation City: Lemoore
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93245
Affiliation Phone: (559) 945-7850,

Affiliation Type Desc: Parent Corporation
Entity Name: Esajian Farming Company
Entity Title: Not reported
Affiliation Address: Not reported

ESAJIAN FARMING COMPANY (Continued) **S121759760**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

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7 **LEMOORE AUXILIARY FIELD NO. 4** **FUDS** **1024903754**
South **N/A**
1/2-1 **LEMOORE, CA**
0.706 mi.
3730 ft.

Actual:
244 ft.

Focus Map:
13

FUDS:

EPA Region:	09
Installation ID:	CA99799F577800
Congressional District Number:	22
Name:	LEMOORE AUXILIARY FIELD NO. 4
FUDS Number:	J09CA0848
City:	LEMOORE
State:	CA
County:	KINGS
Object ID:	1146
USACE Division:	SPD
USACE District:	Sacramento District (SPK)
Status:	Properties without projects
Current Owner:	OTHER: OTHER
EMS Map Link:	https://fudsportal.usace.army.mil/ems/inventory/map?id=61268
Eligibility:	Ineligible
Has Projects:	No
NPL Status:	Not reported
Project Required:	No
Feature Description:	In 1942, the Army acquired by fee 621.76 acres of agricultural land from Charles C. Newport Et Ux and Gertrude M.
Latitude:	36.14194444
Longitude:	-119.94944444

Count: 42 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AVENAL	1016788976	VERIZON WIRELESS (HIGHWAY 269 & I-5)	34 1/2 AVENAL CUT OFF RD	93239	FINDS
HURON	S126982963	HURON DISPOSAL SITE (CLOSED)	37777 S BUTTE @ GALE	93234	SWF/LF
HURON	S119782954		36.12982 / 120.03059, JAYNE AND AVENAL CUTOFF ROAD		CHMIRS
HURON	1023359564	HURON GREASE TRAP DISPOSAL SITE	AVENAL CUTOFF & REPUBLIC IND	93239	FINDS
KETTLEMAN CITY	S128723841	KOCHERGEN FARMS COMPOSTING, INC.	33915 AVENAL CUTOFF ROAD	93239	HAULERS
KETTLEMAN CITY	1016433369	AMERICAN TOWERS, I-5 AVENAL CA #8329	8329 AVENAL CUTOFF RD	93239	FINDS
KINGS COUNTY	S105637038		S/B 41 1/2 MILE SOUTH LAUREL		CHMIRS
LEMOORE	S129490468	LOPEZ TRUCKING	28060 AVENAL CT OFF RD	93245	HWTS
LEMOORE	S117742808		27TH AVE, .5 MILES FROM S KENT AVE	93245	CHMIRS
LEMOORE	S110982276		MURPHY RANCH ROAD 600 FEET WEST OF AVENAL CUTOFF ROAD		CHMIRS
LEMOORE	1027202825	DH BLATTNER	17189 AVENAL CUTOFF RD	93245	RCRA NonGen / NLR
LEMOORE	1026164619	MUSTANG 2 SOLAR	17189 AVENAL CUTOFF RD	93245	RCRA NonGen / NLR
LEMOORE	1026096047	MUSTANG 2 SOLAR	17189 AVENAL CUTOFF ROAD	93245	FINDS
LEMOORE	1024607631	WESTSIDE SOLAR POWER PV1	17315 AVENAL CUTOFF ROAD	93245	FINDS
LEMOORE	1027174266	DH BLATTNER	17189 AVENAL CUTOFF RD	93245	FINDS
LEMOORE	1027188607	DH BLATTNER	17189 AVENAL CUTOFF RD	93245	ECHO
LEMOORE	1026180869	MUSTANG 2 SOLAR	17189 AVENAL CUTOFF ROAD	93245	ECHO
LEMOORE	S122338944	WESTHAVEN AGRIBUSINESS	AVENAL CUT-OFF RD. & GALE AVE	93266	CUPA Listings
LEMOORE	S129996444	KINGS CSG 3 LLC SOLAR PROJECT	WEST OF MURPHY RANCH RD AND AVENAL CUTOFF RD	93245	NPDES
STRATFORD	A100323703	ESAJIAN FARMING CO.	AVENAL CUT-OFF RD. & GALE		AST
STRATFORD	S108723895		ON 14 1/2 AVE, AND LAUREL AVE	93266	CDL
STRATFORD	U001582661	TEXACO SS STRATFORD	MAIN & EMPIRE	93266	HIST UST
STRATFORD	U001582662	WESTFARMERS	CORNER OF AVENAL CUTOFF RD AND	93266	HIST UST
STRATFORD	S105668122		LAUREL AVE		CHMIRS
STRATFORD	S120833893		24TH AVENUE AND LAUREL AVENUE		CHMIRS
STRATFORD	1026722311	AK CORAL CAY TRUST DBA LAKESHORE DAIRY	15978 MANTECA AVE	93266	RCRA NonGen / NLR
STRATFORD	1027218842	AQUAMARINE WESTSIDE LLC	24999 LAUREL AVE	93266	RCRA NonGen / NLR
STRATFORD	1027070419	IGNACIO	24999 LAUREL AV	93266	RCRA NonGen / NLR
STRATFORD	1026717453	SWINERTON BUILDERS	24999 LAUREL AV	93266	RCRA NonGen / NLR
STRATFORD	1026813836	IGNACIO	24999 WEST LAUREL AV	93266	RCRA NonGen / NLR
STRATFORD	1023229446	LAKESHORE DAIRY	15978 MANTECA AVE	93266	FINDS
STRATFORD	1023328867	CHEVRON LAUREL AVENUENA STRATFORDNA KING CO.	XXX LAUREL AVENUE AND 17TH AVENUE	93266	FINDS
STRATFORD	1027284663	AQUAMARINE WESTSIDE LLC	24999 LAUREL AVE	93266	FINDS
STRATFORD	1027006311	SWINERTON BUILDERS	24999 LAUREL AV	93266	FINDS
STRATFORD	1023226125	STRATFORD WWTF	LINCOLN	93266	FINDS
STRATFORD	1026697999	SLATE HYBRID	16829 AVENAL CUTOFF ROAD	93266	FINDS
STRATFORD	1023312258	ESAJIAN FARMING COMPANY	AVENAL CUT-OFF RD & GALE AVE	93266	FINDS
STRATFORD	1026741524	AK CORAL CAY TRUST DBA LAKESHORE DAIRY	15978 MANTECA AVE	93266	ECHO
STRATFORD	1026910857	IGNACIO	24999 LAUREL AV	93266	ECHO
STRATFORD	1027244615	AQUAMARINE WESTSIDE LLC	24999 LAUREL AVE	93266	ECHO
STRATFORD	1026762439	SWINERTON BUILDERS	24999 LAUREL AV	93266	ECHO
STRATFORD	S106920681	COUNTY OF KINGS	NE CORNER LAUREL & EMPIRE	93266	EMI

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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
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.

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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
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: 03/26/2023
Date Data Arrived at EDR: 03/28/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/23/2023
Next Scheduled EDR Contact: 10/09/2023
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 know 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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 05/25/2023
Date Data Arrived at EDR: 05/31/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 54

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 08/21/2023
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: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 62

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
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: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 62

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

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: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
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: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 11/06/2023
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 identifes 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: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 11/06/2023
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 inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/08/2023
Date Data Arrived at EDR: 05/08/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 84

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

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.

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 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 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 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: 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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/30/2023
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

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 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 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

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 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

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

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: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/09/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

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: 04/14/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/26/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

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

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: 03/08/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 82
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Semi-Annually

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.

Date of Government Version: 02/23/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/26/2023
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

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: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
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: 04/26/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/14/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/25/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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.

Date of Government Version: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

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: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds 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: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
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: 04/06/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 04/19/2023
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/08/2023
Next Scheduled EDR Contact: 09/25/2023
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.

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: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/16/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/13/2023
Number of Days to Update: 83

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/31/2023
Next Scheduled EDR Contact: 08/21/2023
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: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

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

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: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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 Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/27/2023
Next Scheduled EDR Contact: 11/13/2023
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: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
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
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
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: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 11/06/2023
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: 12/31/2020
Date Data Arrived at EDR: 11/30/2022
Date Made Active in Reports: 02/09/2023
Number of Days to Update: 71

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

CERS HAZ WASTE: California Environmental Reporting System Hazardous 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: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/11/2023
Number of Days to Update: 84

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
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.

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: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Quarterly

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

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

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

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: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79
Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

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: 02/23/2023
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 03/23/2023
Number of Days to Update: 27
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/11/2023
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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing
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: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
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: 03/19/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
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: 04/15/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/30/2023
Number of Days to Update: 23

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
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: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 05/08/2023
Date Data Arrived at EDR: 05/16/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 55
Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
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
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239
Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/10/2023
Next Scheduled EDR Contact: 10/23/2023
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
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574
Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
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.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/21/2023
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: 03/13/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
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: 07/31/2023
Next Scheduled EDR Contact: 11/13/2023
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: 05/04/2023
Next Scheduled EDR Contact: 08/14/2023
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: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/16/2023
Next Scheduled EDR Contact: 09/25/2023
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.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 02/16/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 75

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/19/2023
Next Scheduled EDR Contact: 08/28/2023
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: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 83

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
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: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 09/11/2023
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: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 06/12/2023
Next Scheduled EDR Contact: 10/30/2023
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

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 08/14/2023
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: 03/20/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 66

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
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
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
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: 03/15/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/12/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 04/14/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 87
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
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
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
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
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/04/2023
Next Scheduled EDR Contact: 08/14/2023
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
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/09/2023
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
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: 12/17/2007
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.

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 Transporation, 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 Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 11/06/2023
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: 03/31/2023
Date Data Arrived at EDR: 04/20/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 81

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
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: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 10/02/2023
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: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
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: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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.

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: 05/24/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/22/2023
Date Data Arrived at EDR: 07/06/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 18

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
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 1931and 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: 04/03/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 66

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 09/11/2023
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.

Date of Government Version: 05/01/2023
Date Data Arrived at EDR: 05/24/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 61

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/24/2023
Next Scheduled EDR Contact: 09/04/2023
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: 01/07/2022
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 82

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
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: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
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: 03/17/2023
Date Data Arrived at EDR: 03/17/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 74

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 09/18/2023
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: 05/04/2023
Date Data Arrived at EDR: 05/25/2023
Date Made Active in Reports: 07/24/2023
Number of Days to Update: 60

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/25/2023
Date Data Arrived at EDR: 03/31/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 10/20/2022
Date Made Active in Reports: 01/10/2023
Number of Days to Update: 82

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

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: 05/15/2023
Date Data Arrived at EDR: 05/17/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 54

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO FIRE TRAINING: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS PART 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/16/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/05/2023
Number of Days to Update: 59

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/23/2023
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
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: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
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: 03/31/2023
Date Data Arrived at EDR: 05/08/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 84
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
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: 07/19/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Annually

DRYCLEAN VENTURA CO DIST: Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Ventura County Air Pollution Control District.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475
Source: Ventura County Air Pollution Control District
Telephone: 805-645-1421
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 09/11/2023
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: 02/17/2023
Date Data Arrived at EDR: 02/17/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 81
Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
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.

Date of Government Version: 02/23/2023
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 05/15/2023
Number of Days to Update: 80
Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO SONOMA CO DIST: Norther Sonoma County County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Northern Sonoma County Air Pollution Control District.,

Date of Government Version: 04/17/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475
Source: Santa Barbara County Air Pollution Control District
Telephone: 707-433-5911
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN PLACER CO DIST: Placer County Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Placer County Air Quality Management District.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1473

Source: Placer County Air Quality Management District
Telephone: 530-745-2335
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN EAST KERN DIST: Eastern Kern Air Pollution Control District District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Eastern Kern Air Pollution Control District.

Date of Government Version: 01/12/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Eastern Kern Air Pollution Control District
Telephone: 661-862-9684
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN BAY AREA DIST: Bay Area Air Quality Management District Drycleaner Facility Listing
Bay Area Air Quality Management District Drycleaner Facility Listing.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1432

Source: Bay Area Air Quality Management District
Telephone: 415-516-1916
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN BUTTE CO DIST: Butte County Air Quality Management DistrictDrycleaner Facility Listing
Butte County Air Quality Management DistrictDrycleaner Facility Listing.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1469

Source: Butte County Air Quality Management District
Telephone: 530-332-9400
Last EDR Contact: 07/13/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN CALAVERAS CO DIST: Calaveras County Environmental Management Agency Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Calaveras County Environmental Management Agency.

Date of Government Version: 06/17/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1412

Source: Calaveras County Environmental Management Agency
Telephone: 209-754-6399
Last EDR Contact: 04/24/2023
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

DRYCLEAN IMPERIAL CO DIST: Imperial County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Imperial County Air Pollution Control District

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Imperial County Air Pollution Control District
Telephone: 442-265-1800
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN MENDO CO DIST: Mendocino County Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Mendocino County Air Quality Management District.

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: Mendocino County Air Quality Management District
Telephone: 707-463-4354
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN GRANT: Grant Recipients List

Assembly Bill 998 (AB 998) established the Non-Toxic Dry Cleaning Incentive Program to provide financial assistance to the dry cleaning industry to switch from systems using perchloroethylene (Perc), an identified toxic air contaminant and potential human carcinogen, to non-toxic and non-smog forming alternatives.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 816

Source: California Air Resources Board
Telephone: 916-323-0006
Last EDR Contact: 07/24/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

DRYCLEAN MOJAVE DESERT DIST: Mojave Desert Air Quality Management District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Mojave Desert Air Quality Management District.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Mojave Desert Air Quality Management District
Telephone: 760-245-1661
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN LAKE CO DIST: Lake County Air Quality Management District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Lake County Air Quality Management District,

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1455

Source: Lake County Air Quality Management District
Telephone: 707-263-7000
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN MONTEREY BAY DIST: Monterey Bay Air Quality Management District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Monterey Bay Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Monterey Bay Air Quality Management District
Telephone: 831-647-9411
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SHASTA CO DIST: Shasta County Air Quality Management District District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Shasta County Air Quality Management District.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Shasta County Air Quality Management District
Telephone: 530-225-5674
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO COAST UNIFIED DIST: North Coast Unified Air Quality Management District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the North Coast Unified Air Quality Management District.

Date of Government Version: 11/30/2016
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1473

Source: North Coast Unified Air Quality Management District
Telephone: 707-443-3093
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN YOLO-SOLANO DIST: Yolo-Solano Air Quality Management District Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Yolo-Solano Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Yolo-Solano Air Quality Management District
Telephone: 530-757-3650
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO SIERRA DIST: Northern Sierra Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Northern Sierra Air Quality Management District,

Date of Government Version: 05/07/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1455
Source: Northern Sierra Air Quality Management District
Telephone: 530-274-9350
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN DIEGO CO DIST: San Diego County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Diego County Air Pollution Control District.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1461
Source: San Diego County Air Pollution Control District
Telephone: 858-586-2616
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SACRAMENTO METO DIST: Sacramento Metropolitan Air Quality Management DistrictDrycleaner Facility Listing
A listing of drycleaner facility locations, for the Sacramento Metropolitan Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/19/2023
Number of Days to Update: 82
Source: Sacramento Metropolitan Air Quality Management District
Telephone: 916-874-3958
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN GLENN CO DIST: Glenn County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Glenn County Air Pollution Control District.

Date of Government Version: 05/02/2023
Date Data Arrived at EDR: 05/03/2023
Date Made Active in Reports: 07/25/2023
Number of Days to Update: 83
Source: Glenn County Air Pollution Control District
Telephone: 530-934-6500
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SANTA BARB CO DIST: Santa Barbara County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Santa Barbara County Air Pollution Control District.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475
Source: Santa Barbara County Air Pollution Control District
Telephone: 805-961-8867
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN JOAQ VAL DIST: San Joaquin Valley Air Pollution Control District District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Joaquin Valley Air Pollution Control District.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/03/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1459
Source: San Joaquin Valley Air Pollution Control District
Telephone: 559-230-6001
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN LUIS OB CO DIST: San Luis Obispo County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Luis Obispo County Air Pollution Control District.

Date of Government Version: 04/23/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1467
Source: San Luis Obispo County Air Pollution Control District
Telephone: 805-781-5756
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN TEHAMA CO DIST: Tehama County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Tehama County Air Pollution Control District.

Date of Government Version: 04/24/2019
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1468
Source: Tehama County Air Pollution Control District
Telephone: 530-527-3717
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN AMADOR: Amador Air District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Amador Air Quality Management District

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 77
Source: Amador Air Quality Management District
Telephone: 209-257-0112
Last EDR Contact: 04/24/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN FEATHER RIVER DIST: Feather River Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Feather River Air Quality Management District.

Date of Government Version: 03/08/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 06/05/2023
Number of Days to Update: 88
Source: Feather River Air Quality Management District
Telephone: 530-634-7659
Last EDR Contact: 06/08/2023
Next Scheduled EDR Contact: 06/12/2023
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/30/2022
Number of Days to Update: 78
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/09/2023
Next Scheduled EDR Contact: 09/25/2023
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: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/11/2023
Date Data Arrived at EDR: 01/17/2023
Date Made Active in Reports: 04/04/2023
Number of Days to Update: 77
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 06/28/2023
Next Scheduled EDR Contact: 10/30/2023
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.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/15/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 83

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

ICE: Inspection, Compliance and Enforcement
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/13/2023
Date Data Arrived at EDR: 02/14/2023
Date Made Active in Reports: 05/08/2023
Number of Days to Update: 83

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
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: 02/13/2023
Date Data Arrived at EDR: 02/14/2023
Date Made Active in Reports: 05/08/2023
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
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: 04/03/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/27/2023
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

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: 12/31/2021
Date Data Arrived at EDR: 07/05/2022
Date Made Active in Reports: 09/19/2022
Number of Days to Update: 76

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Annually

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/23/2023
Number of Days to Update: 77
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
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: 01/09/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/08/2023
Date Data Arrived at EDR: 05/08/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 84
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
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: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/22/2023
Number of Days to Update: 83
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
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: 03/09/2023
Date Data Arrived at EDR: 03/10/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 75
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
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: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Annually

SANTA CRUZ CO SITE MITI: Site Mitigation Listing
Sites may become contaminated with toxic chemicals through illegal dumping or disposal, from leaking underground storage tanks, or through industrial or commercial activities.The goal of the site mitigation program is to protect the public health and the environment while facilitating completion of contaminated site clean-up projects in a timely manner.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 20
Source: Santa Cruz Environmental Health Services
Telephone: 831-454-2761
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
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
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
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: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
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: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)
Non-Case Information sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)
Other Oil & Gas Projects sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
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: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
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: 04/13/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
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: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
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: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: No Update Planned

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
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: 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
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 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.

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 03/29/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 75

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 77

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/17/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/02/2023
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: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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: 04/03/2023
Date Data Arrived at EDR: 04/20/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 81

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 05/10/2023
Date Data Arrived at EDR: 05/10/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 82

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/09/2022
Date Made Active in Reports: 09/01/2022
Number of Days to Update: 23

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
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: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
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: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/12/2023
Date Data Arrived at EDR: 04/14/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 75

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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: 01/30/2023
Date Data Arrived at EDR: 02/01/2023
Date Made Active in Reports: 04/19/2023
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/04/2023
Date Data Arrived at EDR: 05/11/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 05/31/2023
Number of Days to Update: 34

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
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: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/06/2023
Date Made Active in Reports: 06/26/2023
Number of Days to Update: 81

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/11/2023
Date Made Active in Reports: 06/26/2023
Number of Days to Update: 76

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/10/2023
Next Scheduled EDR Contact: 10/23/2023
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: 12/31/2022
Date Data Arrived at EDR: 01/12/2023
Date Made Active in Reports: 03/29/2023
Number of Days to Update: 76

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
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: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/13/2023
Next Scheduled EDR Contact: 10/23/2023
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: 11/01/2022
Date Data Arrived at EDR: 12/14/2022
Date Made Active in Reports: 03/07/2023
Number of Days to Update: 83

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/02/2023
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: 11/01/2022
Date Data Arrived at EDR: 12/14/2022
Date Made Active in Reports: 03/07/2023
Number of Days to Update: 83
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/02/2023
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: 03/02/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/07/2023
Number of Days to Update: 80
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/20/2023
Next Scheduled EDR Contact: 10/30/2023
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
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: No Update Planned

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
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 04/12/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 42
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
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
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 07/25/2023
Next Scheduled EDR Contact: 08/28/2023
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: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
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: 07/19/2023
Next Scheduled EDR Contact: 10/09/2023
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: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
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: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/04/2023
Date Data Arrived at EDR: 05/05/2023
Date Made Active in Reports: 07/25/2023
Number of Days to Update: 81

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 89

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/04/2023
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/01/2023
Date Data Arrived at EDR: 05/18/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/14/2023
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: 08/26/2022
Date Data Arrived at EDR: 08/29/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 78
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 07/31/2023
Next Scheduled EDR Contact: 09/11/2023
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: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/12/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/12/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 62
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
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: 11/07/2022
Date Data Arrived at EDR: 12/21/2022
Date Made Active in Reports: 03/16/2023
Number of Days to Update: 85
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
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: 11/07/2022
Date Data Arrived at EDR: 12/09/2022
Date Made Active in Reports: 03/01/2023
Number of Days to Update: 82
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 05/02/2023
Date Data Arrived at EDR: 05/04/2023
Date Made Active in Reports: 07/25/2023
Number of Days to Update: 82

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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.

Date of Government Version: 05/09/2023
Date Data Arrived at EDR: 05/10/2023
Date Made Active in Reports: 08/01/2023
Number of Days to Update: 83

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/04/2023
Date Data Arrived at EDR: 04/05/2023
Date Made Active in Reports: 06/27/2023
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite 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: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
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: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 05/03/2023
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Quarterly

SAN FRANCISO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing
a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 04/11/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 07/11/2023
Number of Days to Update: 89
Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

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: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/10/2023
Date Data Arrived at EDR: 05/11/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 81

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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: 06/08/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Annually

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: 05/31/2023
Next Scheduled EDR Contact: 09/18/2023
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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/10/2023
Date Data Arrived at EDR: 05/11/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 81

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

SANTA CRUZ COUNTY:

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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
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: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
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: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
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: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
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: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/14/2022
Number of Days to Update: 81

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/11/2023
Date Data Arrived at EDR: 05/11/2023
Date Made Active in Reports: 07/31/2023
Number of Days to Update: 81

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/12/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 10/07/2022
Date Data Arrived at EDR: 10/07/2022
Date Made Active in Reports: 12/21/2022
Number of Days to Update: 75

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 07/26/2023
Next Scheduled EDR Contact: 11/13/2023
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
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: 03/27/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 80

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
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
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/21/2023
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: 03/27/2023
Date Data Arrived at EDR: 04/21/2023
Date Made Active in Reports: 07/07/2023
Number of Days to Update: 77

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
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: 05/26/2023
Date Data Arrived at EDR: 06/02/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 12

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 56

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/04/2023
Date Data Arrived at EDR: 05/04/2023
Date Made Active in Reports: 07/25/2023
Number of Days to Update: 82

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
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: 11/16/2022
Date Data Arrived at EDR: 11/16/2022
Date Made Active in Reports: 02/06/2023
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
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
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/27/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Quarterly

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: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
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: 05/10/2022
Next Scheduled EDR Contact: 08/28/2023
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: 06/01/2023
Next Scheduled EDR Contact: 09/18/2023
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.
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, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

STREET AND ADDRESS INFORMATION

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Westland Solar Park

Avenal Cutoff Road & Laurel Ave

Stratford, CA 93266

Inquiry Number: 7385289.8

July 14, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Date EDR Searched Historical Sources:

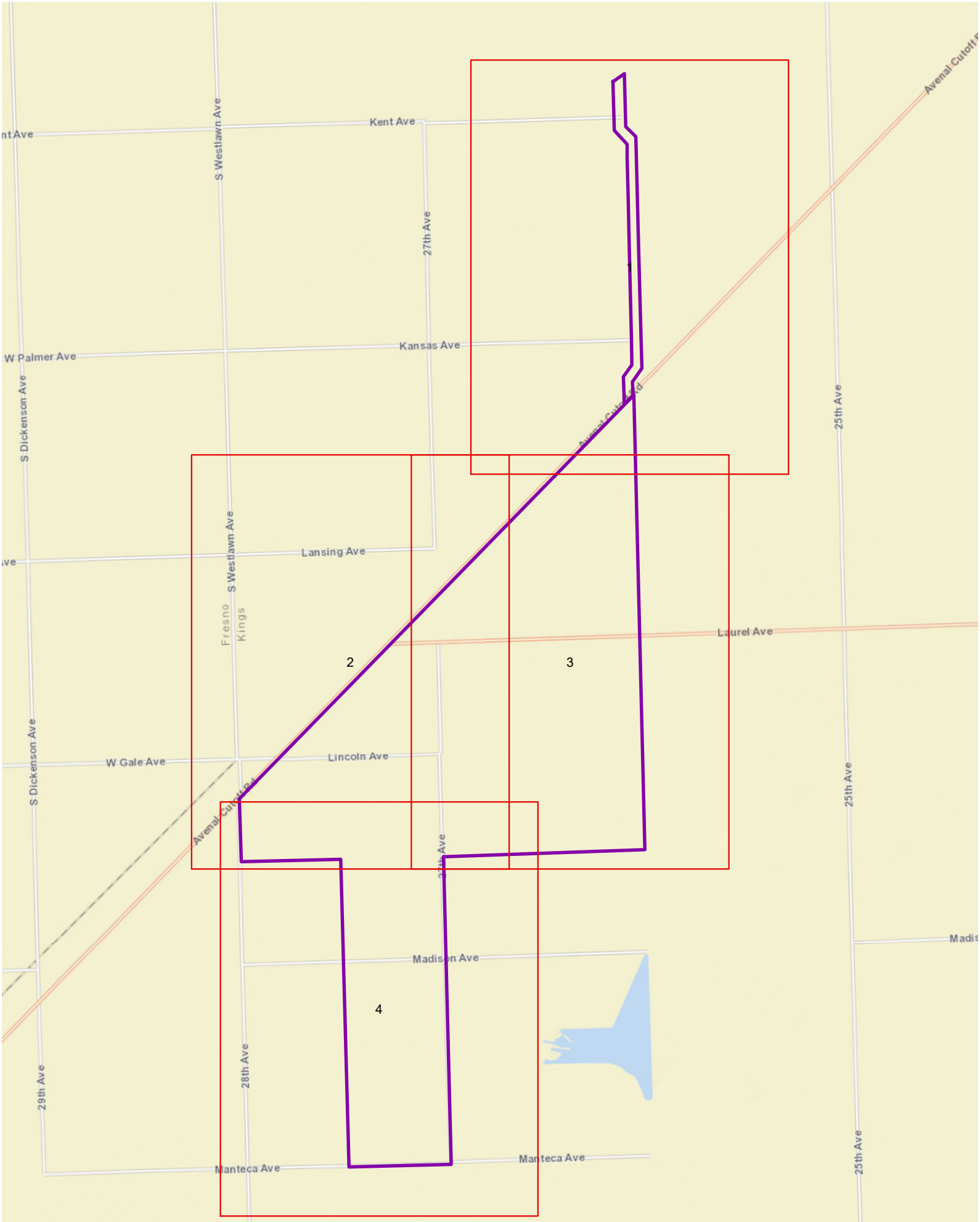
Aerial Photography July 14, 2023

Target Property:

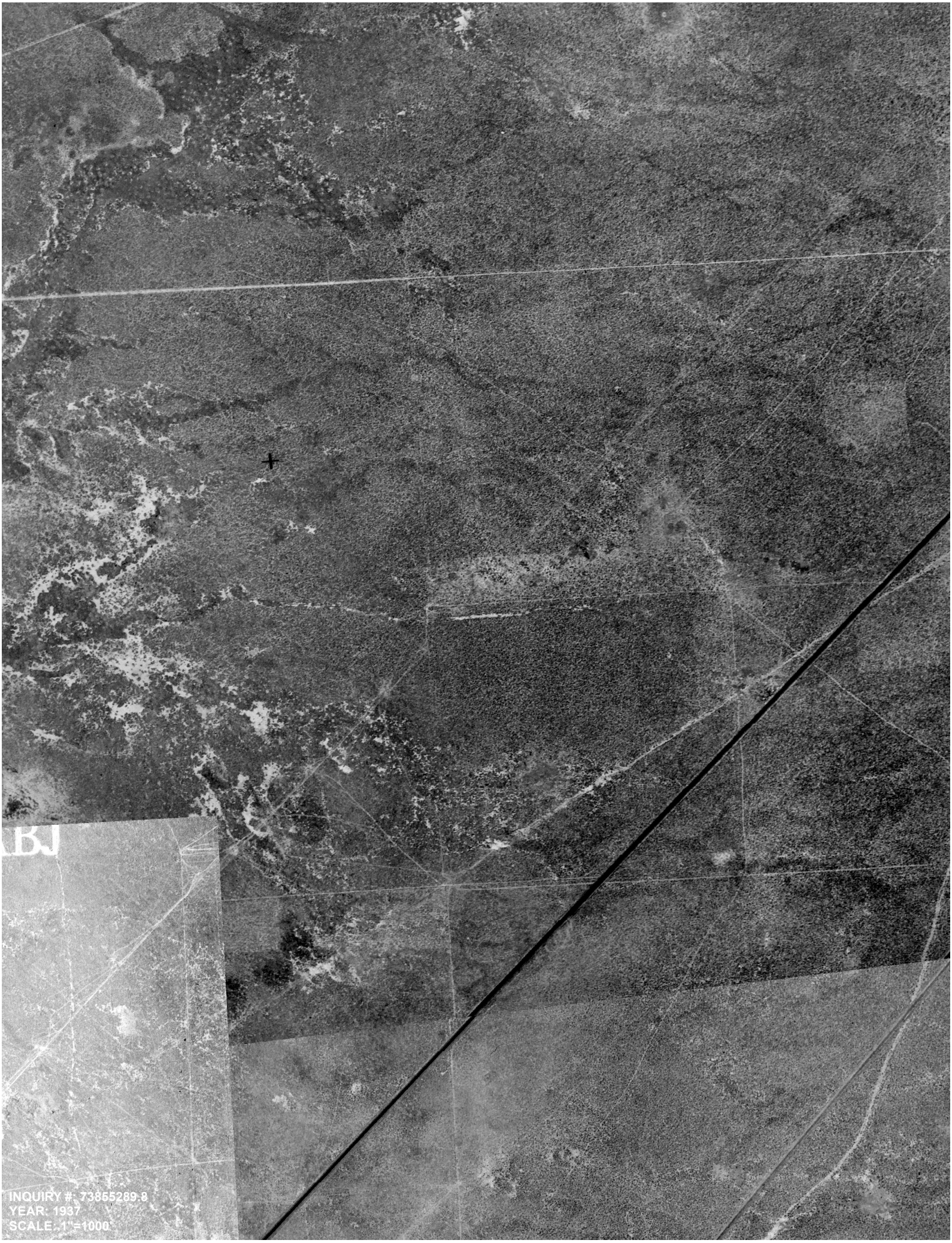
Avenal Cutoff Road & Laurel Ave

Stratford, CA 93266

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1937	USDA
1940	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1940	USDA
1950	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1950	USDA
1960	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1960	USAF
1974	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1974	USGS
1976	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1976	USGS
1984	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1984	USDA
1994	Aerial Photograph. Scale: 1"=1000'	Flight Year: 1994	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2006	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2009	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2012	USDA/NAIP
2016	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2016	USDA/NAIP
2020	Aerial Photograph. Scale: 1"=1000'	Flight Year: 2020	USDA/NAIP



INQUIRY #:7385289.8
INDEX MAP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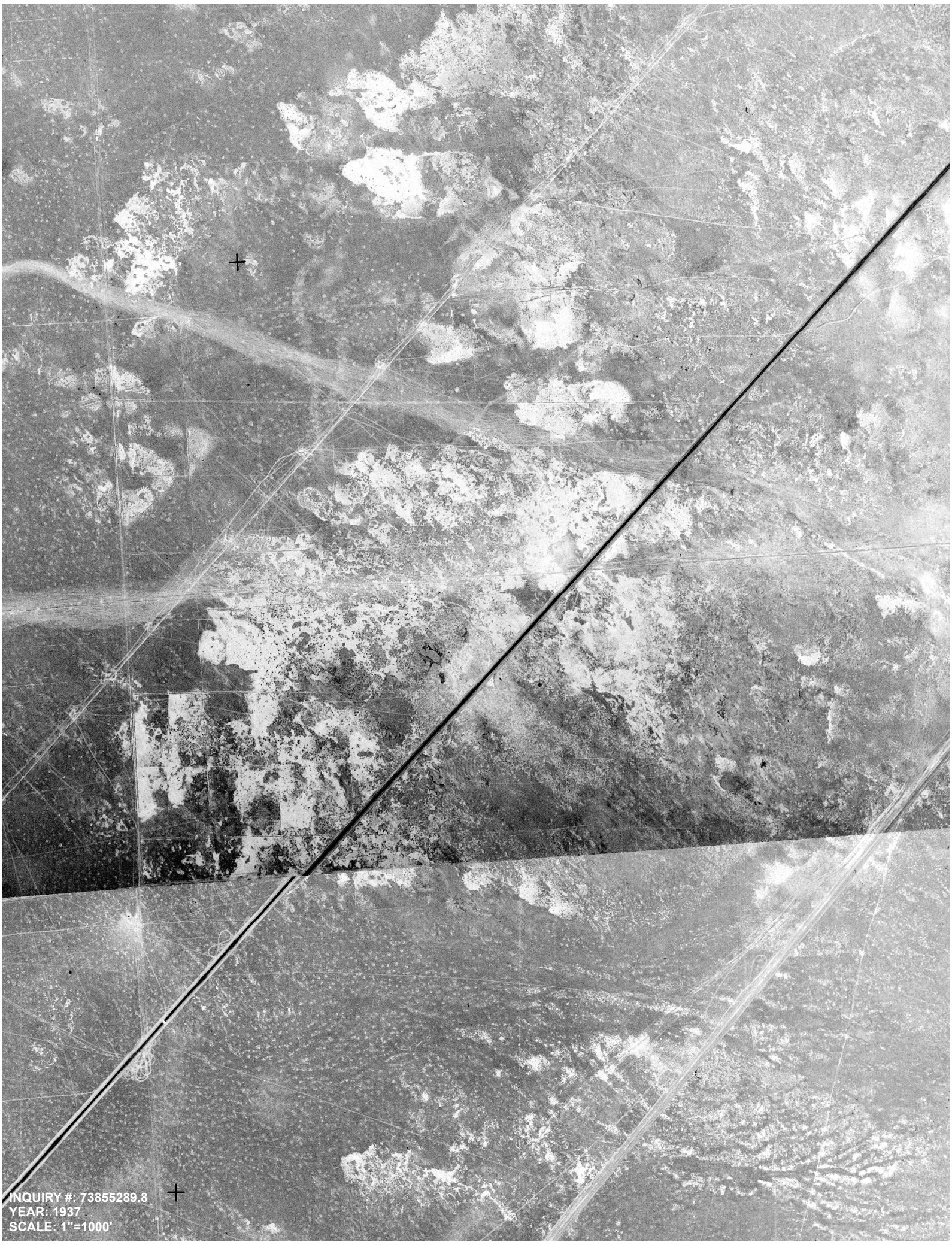
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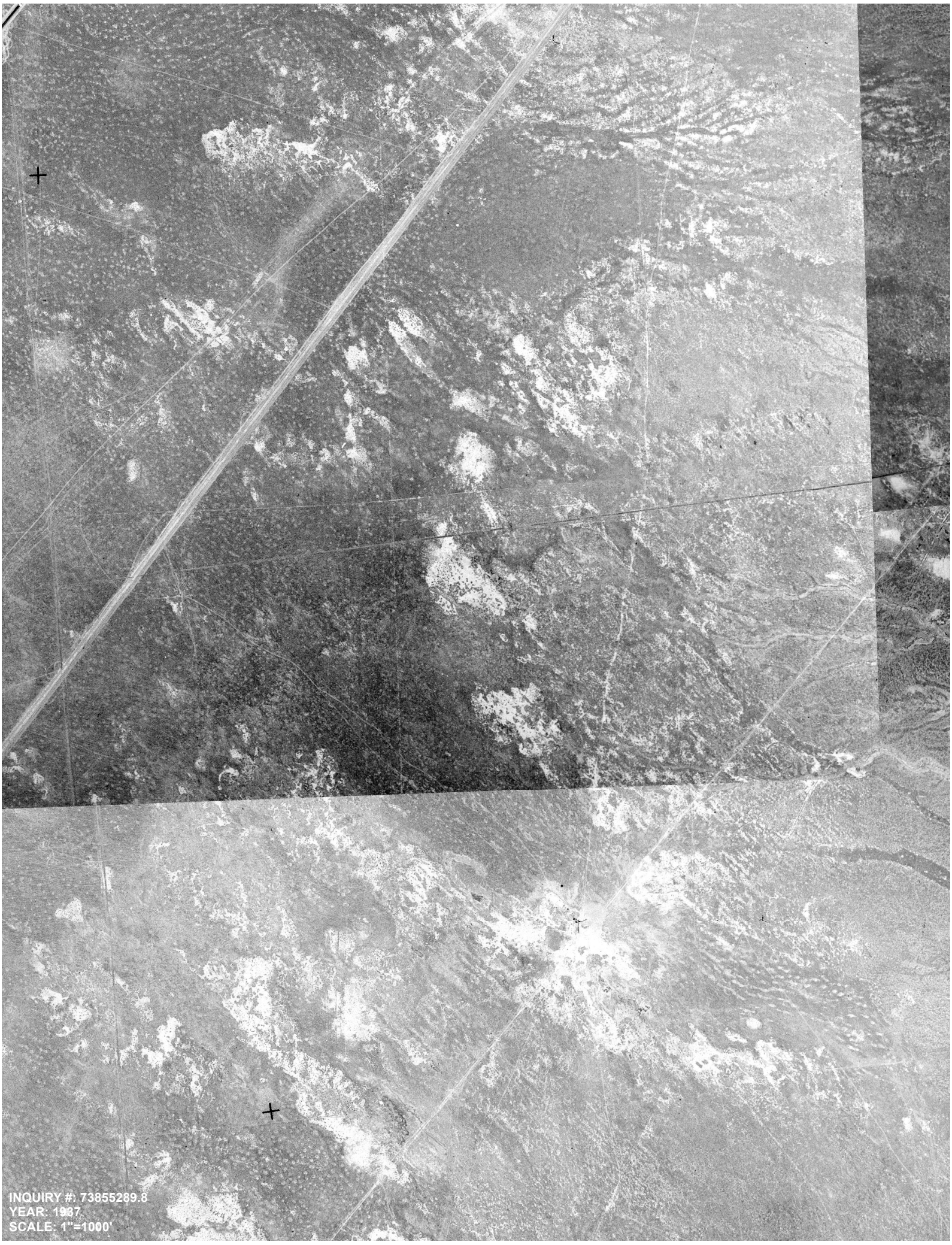

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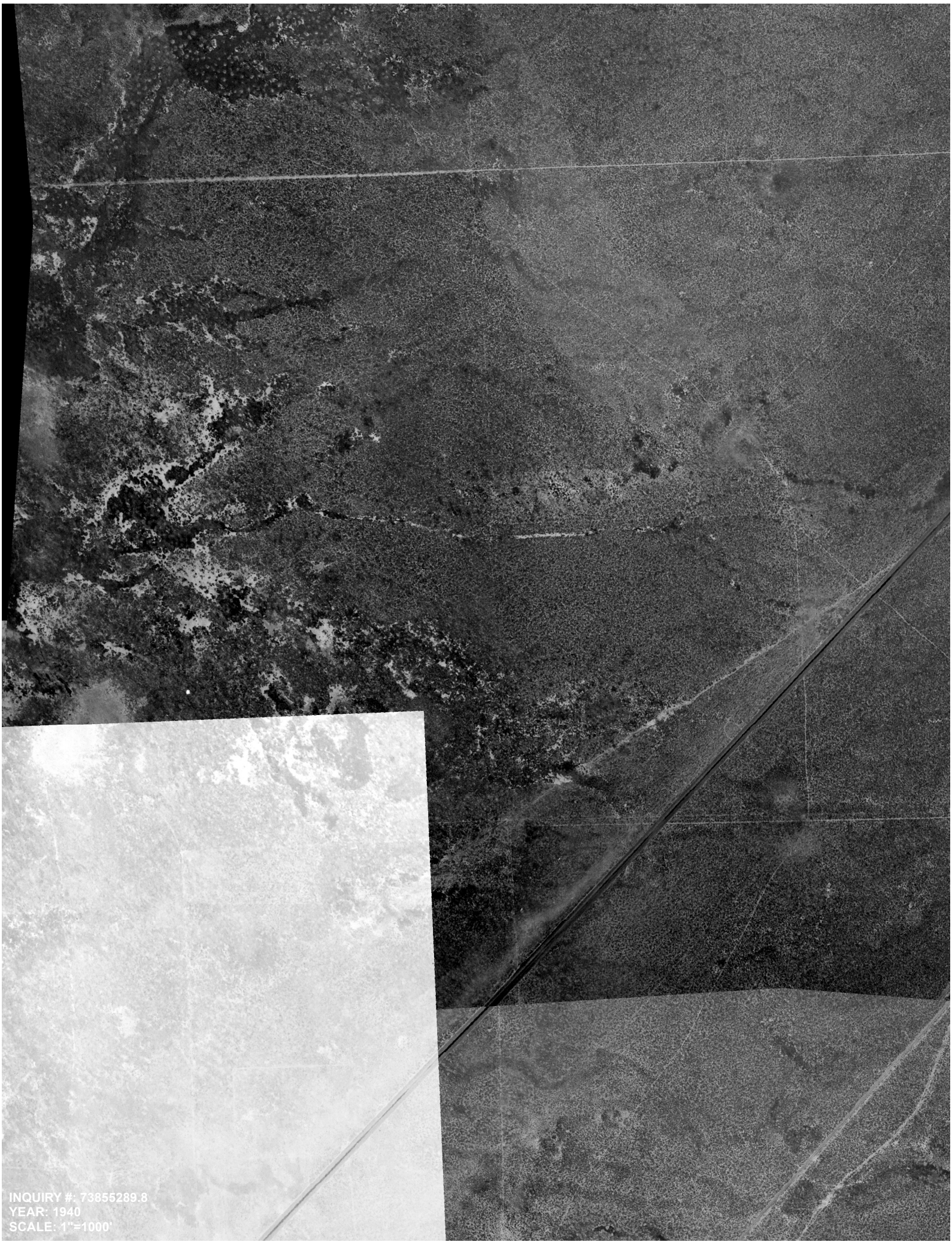
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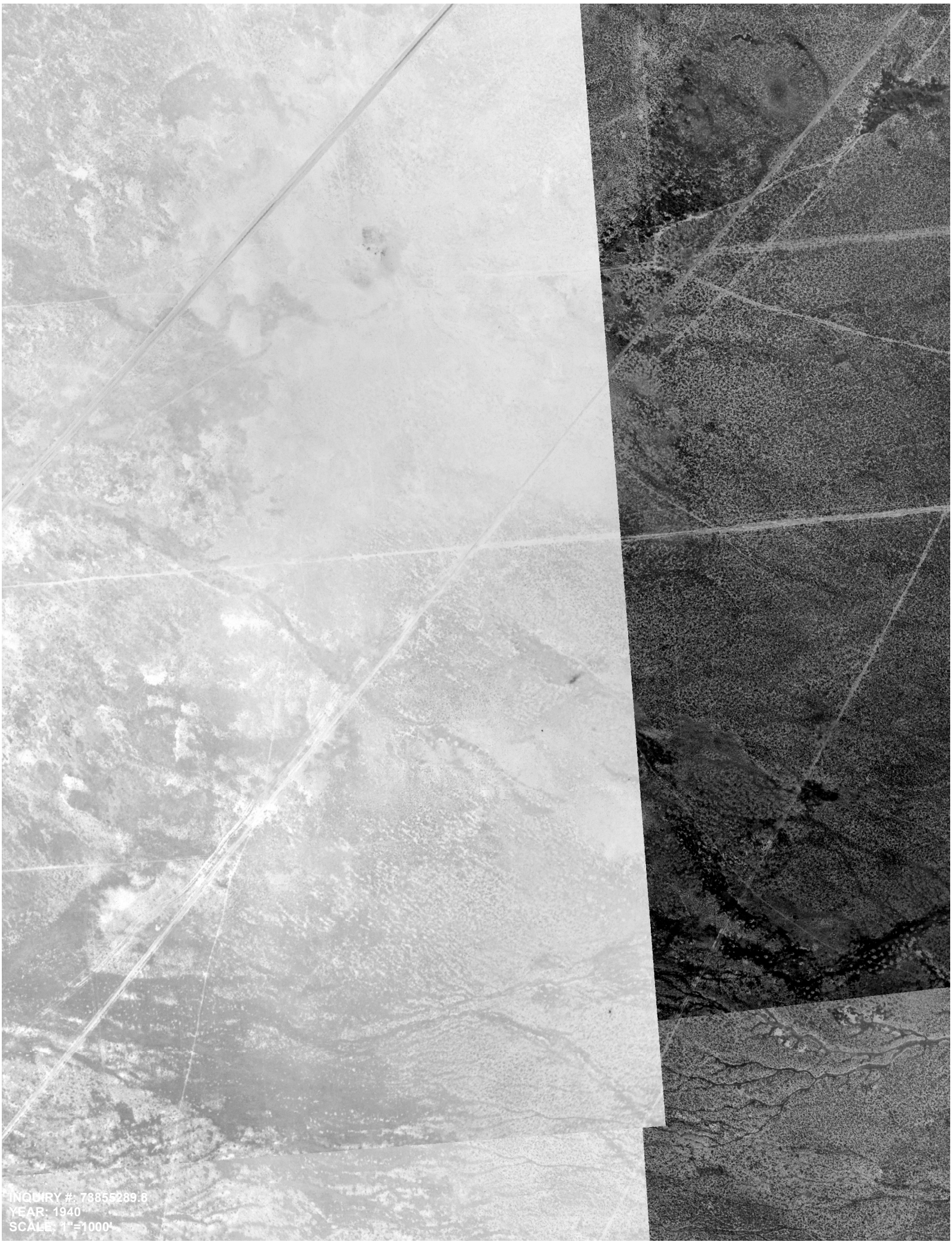

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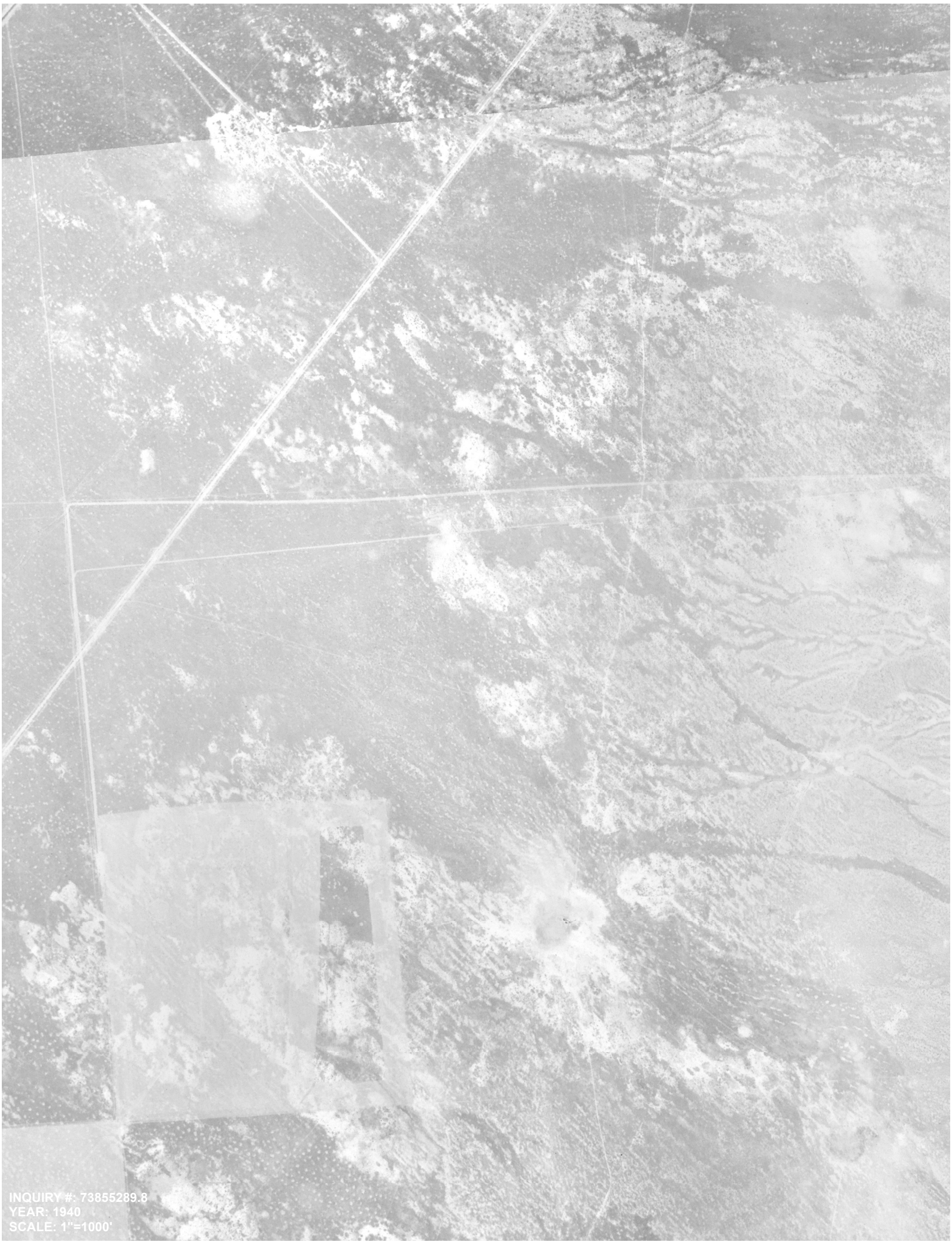

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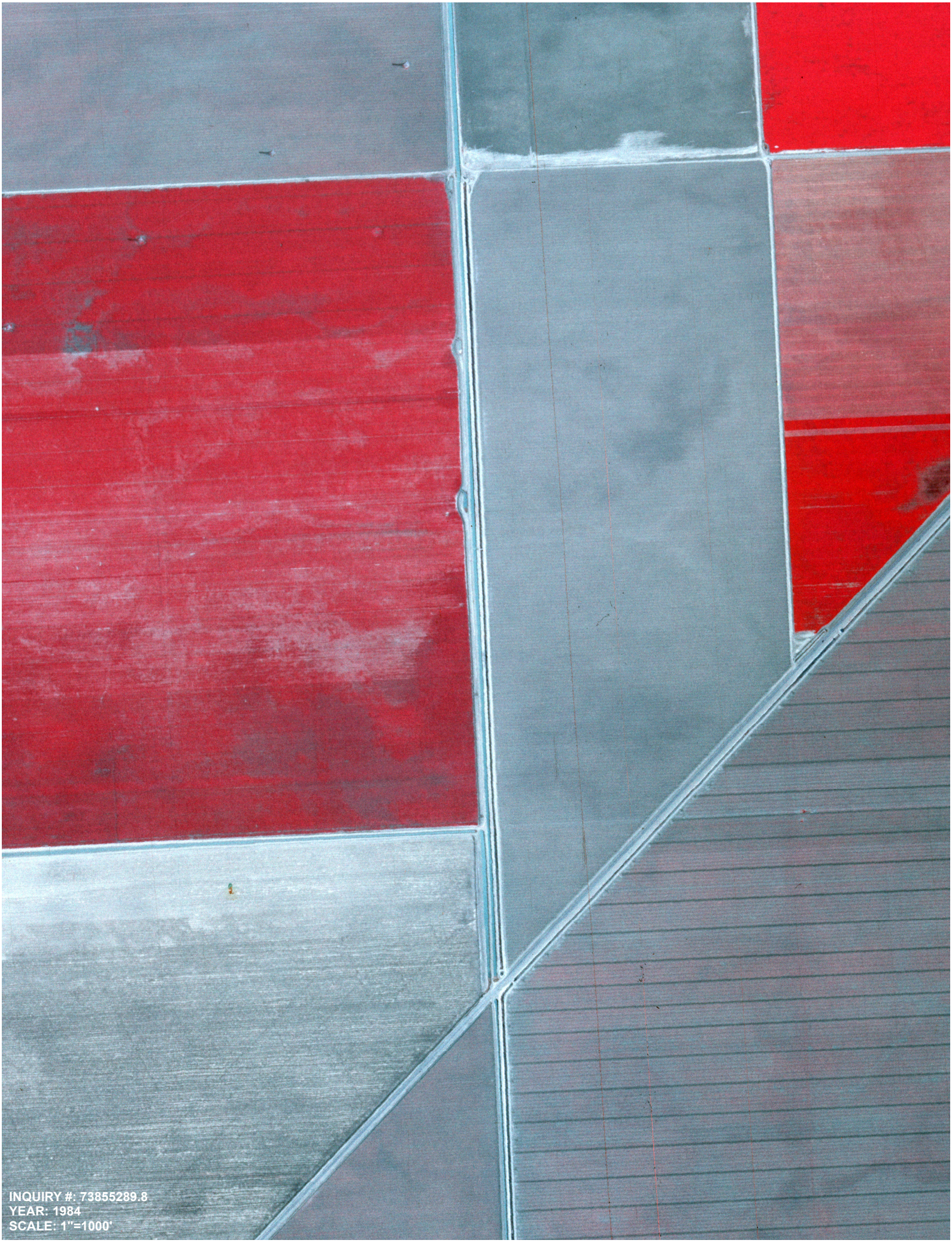
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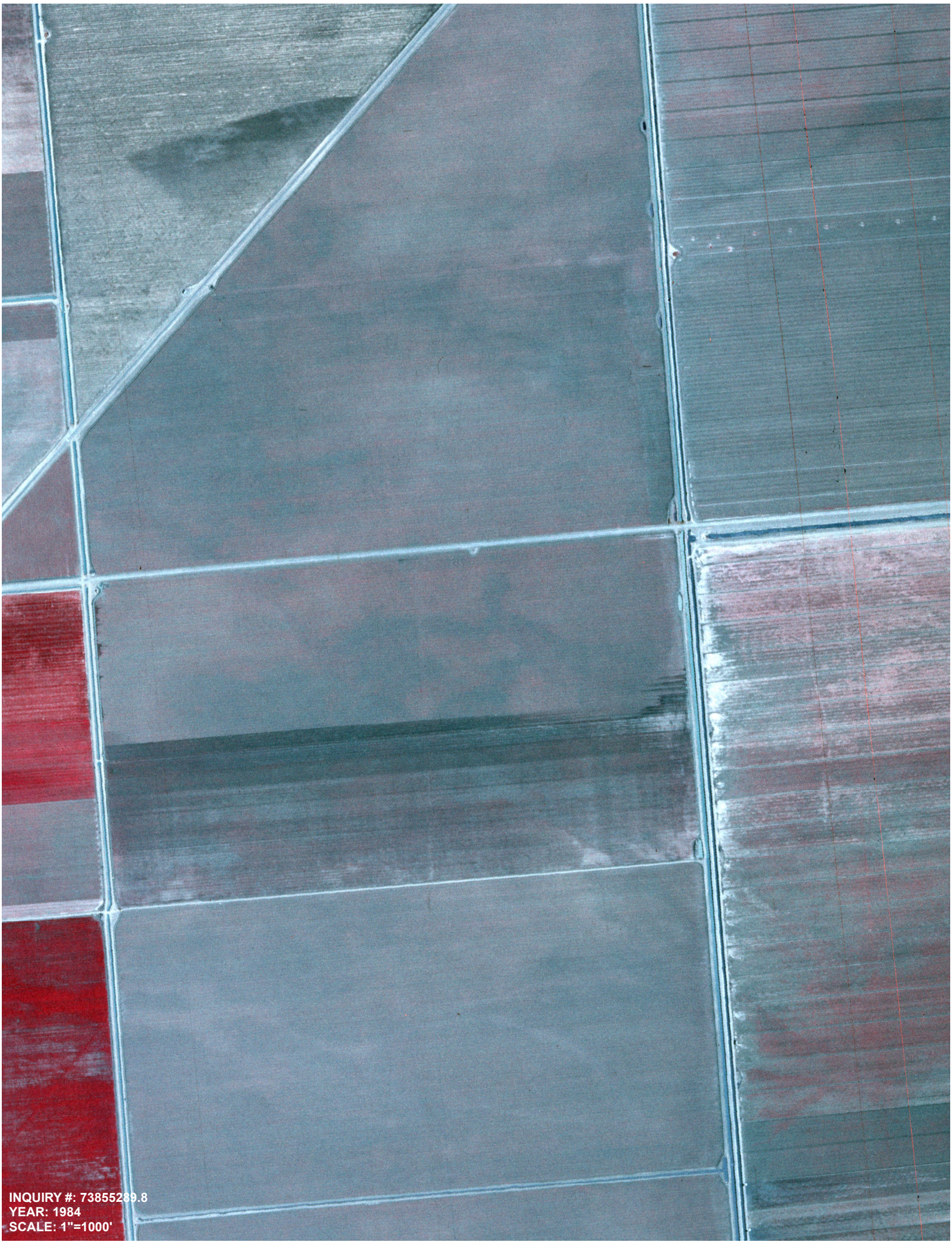
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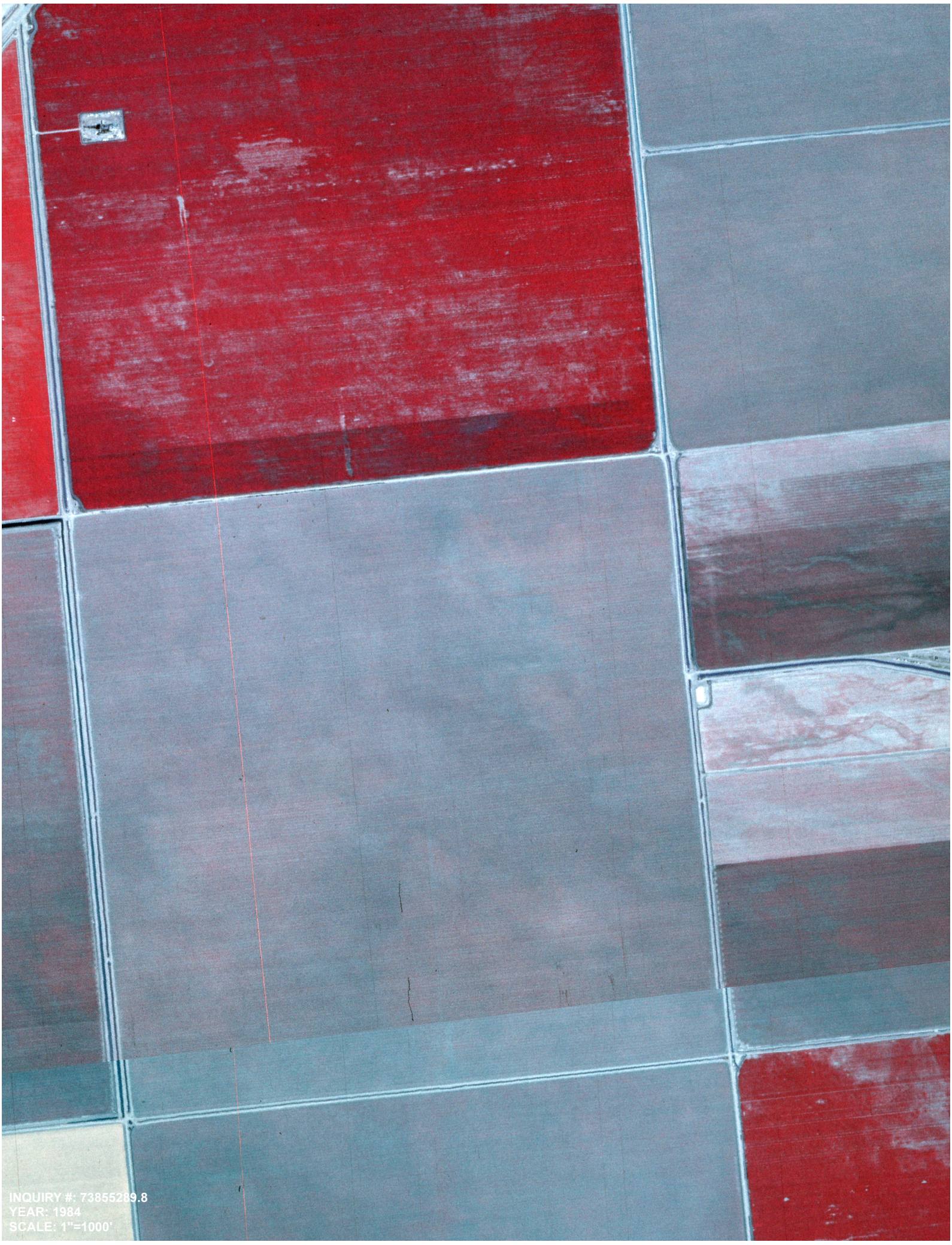
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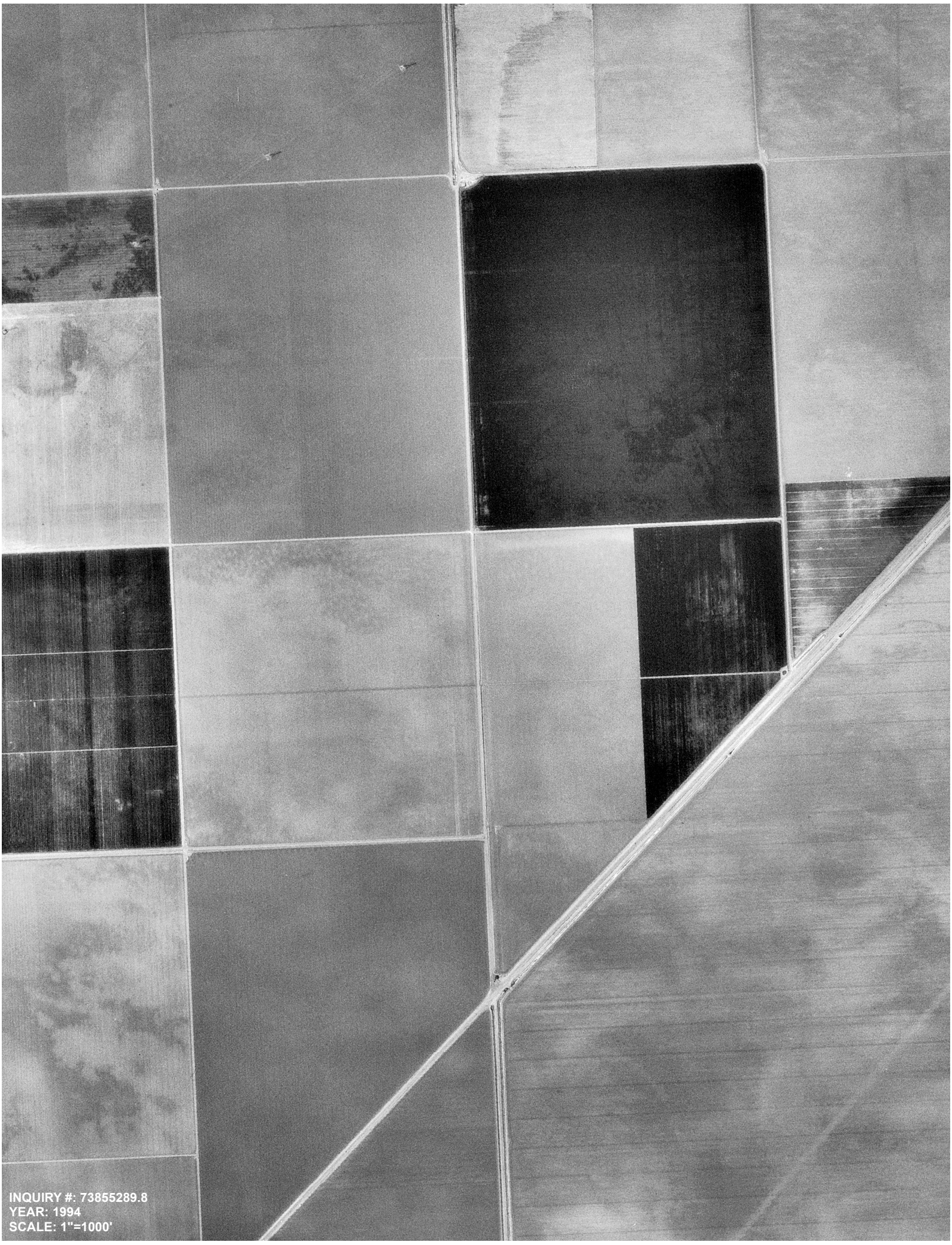

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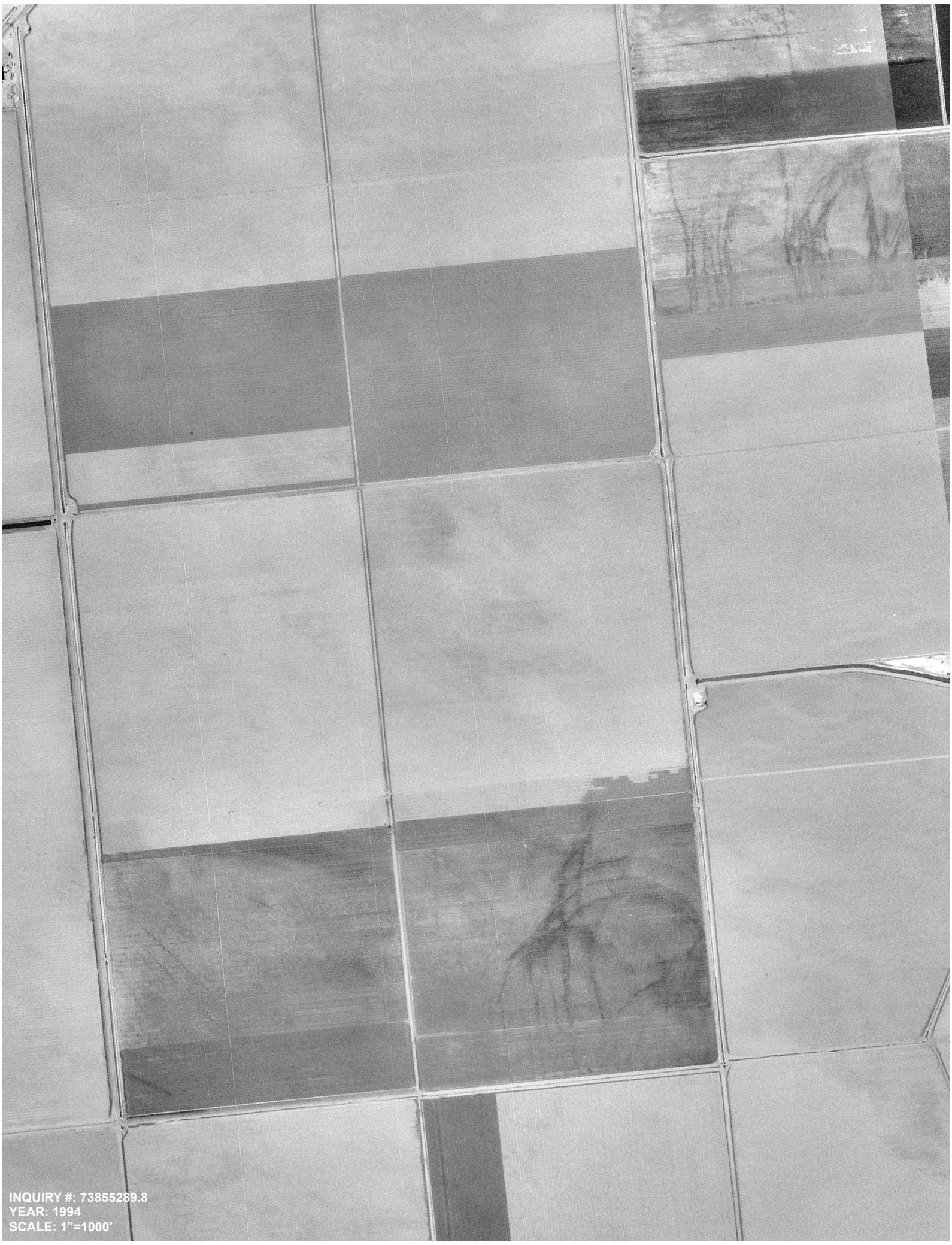

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YEAR: 2020
SCALE: 1"=1000'

Westland Solar Park
Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266

Inquiry Number: 7385289.6
July 10, 2023

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/10/23

Site Name:

Westland Solar Park
Avenal Cutoff Road & Laurel A
Stratford, CA 93266
EDR Inquiry # 7385289.6

Client Name:

MooreTwining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721
Contact: Sara Bloom

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 # D599-47F1-8EF1

PO # NA

Project 23-0427

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 #: D599-47F1-8EF1

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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Westland Solar Park
Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266

Inquiry Number: 7385289.9
July 13, 2023

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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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 business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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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.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☐	EDR Digital Archive
2017	☑	☐	Cole Information
2014	☑	☐	Cole Information
2010	☑	☐	Cole Information
2005	☑	☐	Cole Information
2000	☑	☐	Cole Information
1995	☑	☐	Cole Information
1992	☑	☐	Cole Information
1990	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory
1973	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266

Year	*CD Image*	*Source*	
AVENAL CUTOFF RD			
2020	pg A1	EDR Digital Archive	
2017	-	Cole Information	Target and Adjoining not listed in Source
2014	pg A4	Cole Information	
2010	pg A6	Cole Information	
2005	pg A8	Cole Information	
2000	pg A10	Cole Information	
1995	pg A12	Cole Information	
1992	-	Cole Information	Target and Adjoining not listed in Source
1990	pg A15	Haines Criss-Cross Directory	
1990	pg A16	Haines Criss-Cross Directory	
1985	pg A18	Haines Criss-Cross Directory	
1980	pg A21	Haines Criss-Cross Directory	
1975	pg A23	Haines Criss-Cross Directory	
1973	pg A25	Haines Criss-Cross Directory	
LAUREL AVE			
2020	pg A2	EDR Digital Archive	
2017	pg A3	Cole Information	
2014	pg A5	Cole Information	
2010	pg A7	Cole Information	
2005	pg A9	Cole Information	
2000	pg A11	Cole Information	
1995	pg A13	Cole Information	
1992	pg A14	Cole Information	
1990	pg A17	Haines Criss-Cross Directory	
1985	pg A19	Haines Criss-Cross Directory	
1985	pg A20	Haines Criss-Cross Directory	

FINDINGS

Year	***CD Image***	***Source***
1980	pg A22	Haines Criss-Cross Directory
1975	pg A24	Haines Criss-Cross Directory
1973	pg A26	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

AVENAL CUTOFF RD 2020

28088 AZCAL MANAGEMENT CO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAUREL AVE 2020

16445	KIM MORENO
16562	KRISTIN BRAVO
	MIGUEL BRAVO
16630	ALICIA RODRIGUEZ
	FRANCISCO RODRIGUEZ
19538	LEONARD RODRIGUES
20038	HERMINIA MACIAS
	SALVADOR MACIAS
20087	CYNTHIA RODRIGUES
20122	JUAN SEGURA
	NEMORIO SEGURA
20141	CANDACE RODRIGUES
	STEVEN RODRIGUES
20697	THOMAS HAMILTON
20784	ESPERANZA LOPEZ
	FELIPE LOPEZ
	HUMBERTO BARAJAS
21990	EMPIRE WESTSIDE IRRIGATION
22242	JOHN HOWE
	LANA HOWE

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 2017

16534	BRAVO, JUAN A
16562	BRAVO, MIGUEL A
16630	RODRIGUEZ, LUIS A
19538	WHITE, DEREK M
19762	PIMENTEL, RUPERTO
20076	ARAMBULA, YASMIN
20123	VILLARREAL, FRANCISCO J
20141	RODRIGUES, LOUIE F
20784	BARAJAS, HUMBERTO B
	ISAURO, MENDOZA F
	LOPEZ, FELIPE J
21990	EMPIRE WESTSIDE IRRIGATIO
22242	HOWE, JOHN N

Target Street	Cross Street	Source
✓	-	Cole Information

AVENAL CUTOFF RD 2014

28030 LUIS, SIMENTEL
28048 LEON, JORGE
28100 OROZCO, ANGELINA
28110 SANTOS, OMAR

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 2014

16399 OCCUPANT UNKNOWN,
16433 OCCUPANT UNKNOWN,
16445 MCCLAIN, TIM
16534 BRAVO, JUAN A
16562 BRAVO, MIGUEL A
16630 SINAY, ASHLEY
19038 RODRIGUES, TONY L
19657 ALMA, AGUILERA
19762 PIMENTEL, RUPERTO
19883 HOGGARD, MONTY M
20038 GONZALEZ, GUADALUPE
20054 MORFIN, LEOBARDO A
20076 ARAMBULA, YASMIN
20123 VILLARREAL, FRANCISCO J
20141 RODRIGUES, LEONARD E
20158 CABRERA, MONICA M
20697 SENIFF, ALFRED R
20784 BARAJAS, HUMBERTO B
COSSEY, DANIELLE
GONZALEZ, VERONICA
GUTIERREZ, ADELA G
ISAURO, MENDOZA F
JAVIER, SANCHEZ V
LOPEZ, FELIPE J
SANCHEZ, JAVIER
WHITE RIVER DAIRY
20805 OCCUPANT UNKNOWN,
21722 MEDRANO, DANIEL S
21990 EMPIRE WESTSIDE IRRIGATION DISTRICT
22242 HOWE, JOHN N

Target Street	Cross Street	Source
✓	-	Cole Information

AVENAL CUTOFF RD 2010

28100 OROZCO, ANGELINA
28110 SANTOS, OMAR

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 2010

16399	OCCUPANT UNKNOWN,
16433	OCCUPANT UNKNOWN,
16445	OCCUPANT UNKNOWN,
16630	RODRIGUEZ, JOSE T
19038	RODRIGUES, TONY L
19657	PIMENTEL, RODRIGO
19762	PIMENTEL, RUPERTO
19861	OCCUPANT UNKNOWN,
19883	HOGGARD, MONTY M
20038	MACIAS, ALEJANDRO
20054	MORFIN, MARIA R
20076	BALDOVINO, MARIA
20122	RODRIGUES, CHRIS S
20123	VILLARREAL, FRANCISCO J
20141	RODRIGUES, LOUIE F
20158	CABRERA, MONICA M
20784	BARAJAS, HUMBERTO B
	LOPEZ, FELIPE J
	PADILLA, ANA
	SANCHEZ, JAVIER
	WHITE RIVER DAIRY
20805	DELACRUZ, ROXANA
21722	MEDRANO, DANIEL S
21990	EMPIRE WESTSIDE IRRIGATION
22242	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	Cole Information

AVENAL CUTOFF RD 2005

28008 HERNANDEZ, JOSE A
28018 VAZQUEZ, RAFAEL
28050 QUINTERO, GREGORIO
28088 SHANNON, PATRICK
28090 MORENO, GUILLERMO

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 2005

16433 OCCUPANT UNKNOWN,
16445 MUNOZ, JUAN
16630 RODRIGUEZ, FRANCISCO R
19038 RODRIGUES, TONY L
19657 PIMENTEL, RODRIGO
19762 OCCUPANT UNKNOWN,
19883 HAGGARD, MONTY M
20038 MACIAS, ROSA G
20076 BALDOVINO, MARIA
20122 RODRIGUES, CHRIS J
20123 VILLARREAL, FRANCISCO
20141 RODRIGUES, LEONARD E
20158 CABRERA, MONICA M
20784 LOPEZ, FELIPE
WHITE RIVER DAIRY
20805 DIASO, GREGORY J
21722 MEDRANO, DANIEL S
22242 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	Cole Information

AVENAL CUTOFF RD 2000

28008 BARRIGA, CARMEN J
28018 LOPEZ, JESUS
28050 QUINTERO, G
28068 VAZQUEZ, RAFAEL
28080 CHAVEZ, RAFAEL
28088 SHAMROCK FARMING COMPANY
SHANNON, PAT
28090 MORENO, G
28110 SALINAS, JOSE V

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 2000

16445 MUNOZ, JUAN C
19038 RODRIGUES, TONY
19883 HAGGARD, MONTY M
20122 RODRIGUES, CHRIS
20158 CABRERA, A
20697 SOUZA, EDWARD
20784 WHITE RIVER DAIRY
21990 EMPIRE WESTSIDE IRRIGATION DISTRICT

Target Street	Cross Street	Source
✓	-	Cole Information

AVENAL CUTOFF RD 1995

28080 SHAMROCK FARMING

Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 1995

3521	TRIPLE R FARMS
19038	RODRIGUES, TONY JR
19261	URIBE, SAUL L
19883	J BAR C DAIRY
	MARTELLA, DAIRY
20087	IRIGARAY, T R
20122	RODRIGUES, CHRIS
20697	SOUZA, EDWARD
20784	MARTIN, NORMAN H
21990	EMPIRE WESTSIDE IRRIGATION

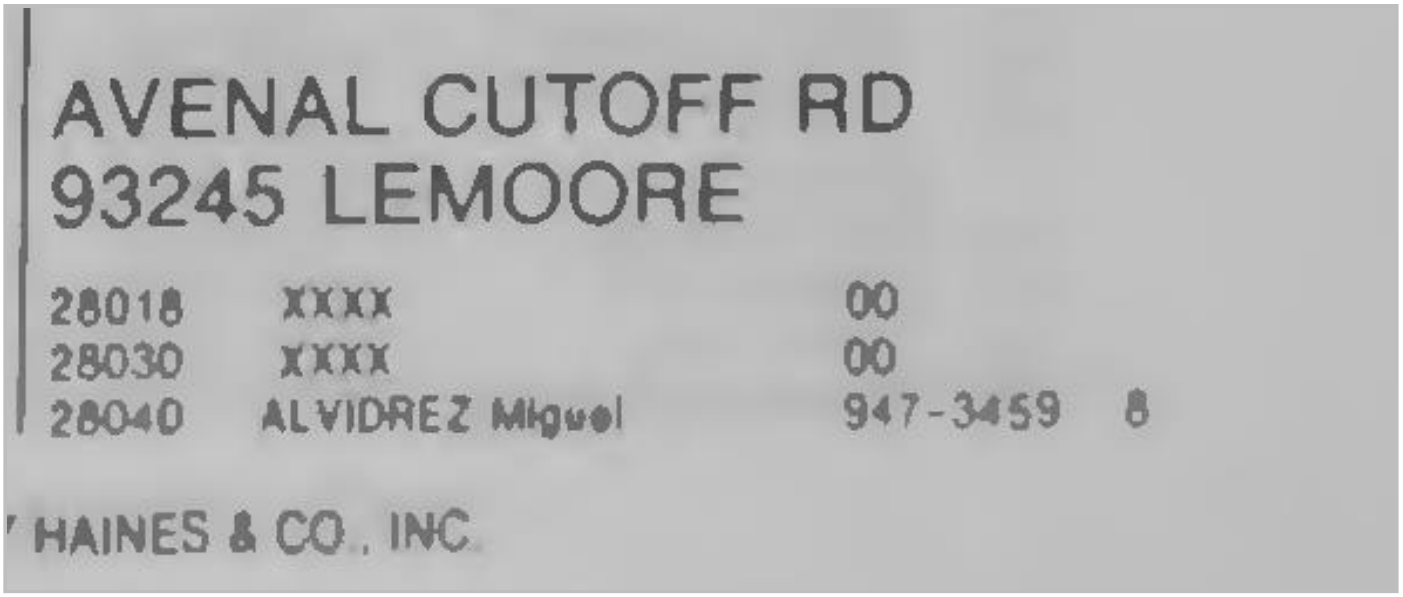
Target Street	Cross Street	Source
✓	-	Cole Information

LAUREL AVE 1992

19038	RODRIGUES, TONY JR
	TRIPLE R FARMS
19261	URIBE, SAUL L
19883	CONTENTE, MIKE
	J BAR C DAIRY
20087	IRIGARAY, MARTIN
20122	RODRIGUES, CHRIS
20697	SOUZA, EDWARD
20784	MARTIN, NORMAN H
21990	EMPIRE WSTSD IRRGTN

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1990



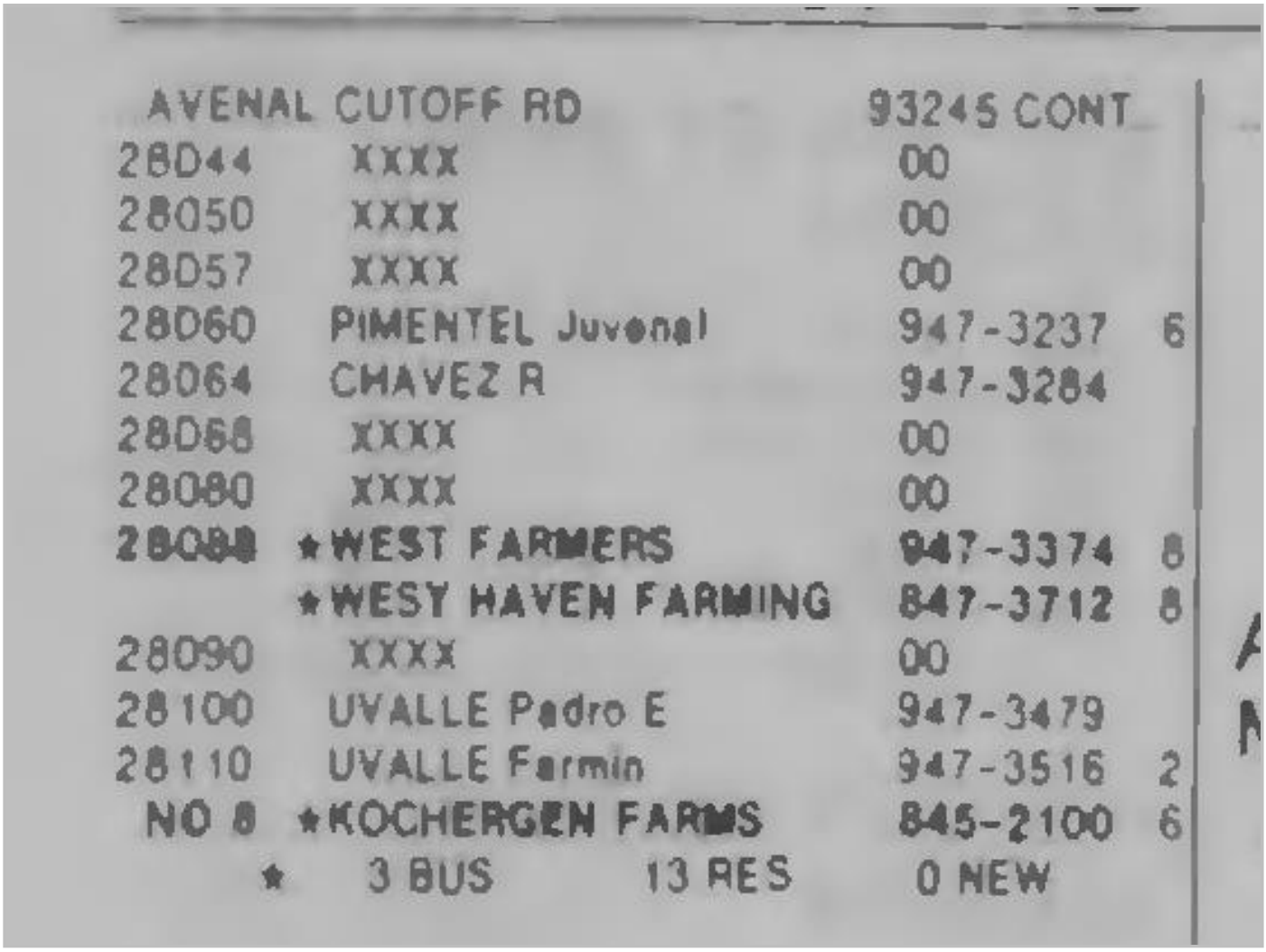
AVENAL CUTOFF RD
93245 LEMOORE

28018	XXXX	00
28030	XXXX	00
28040	ALVIDREZ Miguel	947-3459 B

HAINES & CO., INC.

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1990



AVENAL CUTOFF RD		93245 CONT	
28044	XXXX	00	
28050	XXXX	00	
28057	XXXX	00	
28060	PIMENTEL Juvenal	947-3237	6
28064	CHAVEZ R	947-3284	
28068	XXXX	00	
28080	XXXX	00	
28088	*WEST FARMERS	947-3374	8
	*WESY HAVEN FARMING	847-3712	8
28090	XXXX	00	
28100	UVALLE Pedro E	947-3479	
28110	UVALLE Farmin	947-3516	2
NO 8	*KOCHERGEN FARMS	845-2100	6
*	3 BUS 13 RES	0 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

LAUREL AVE 1990

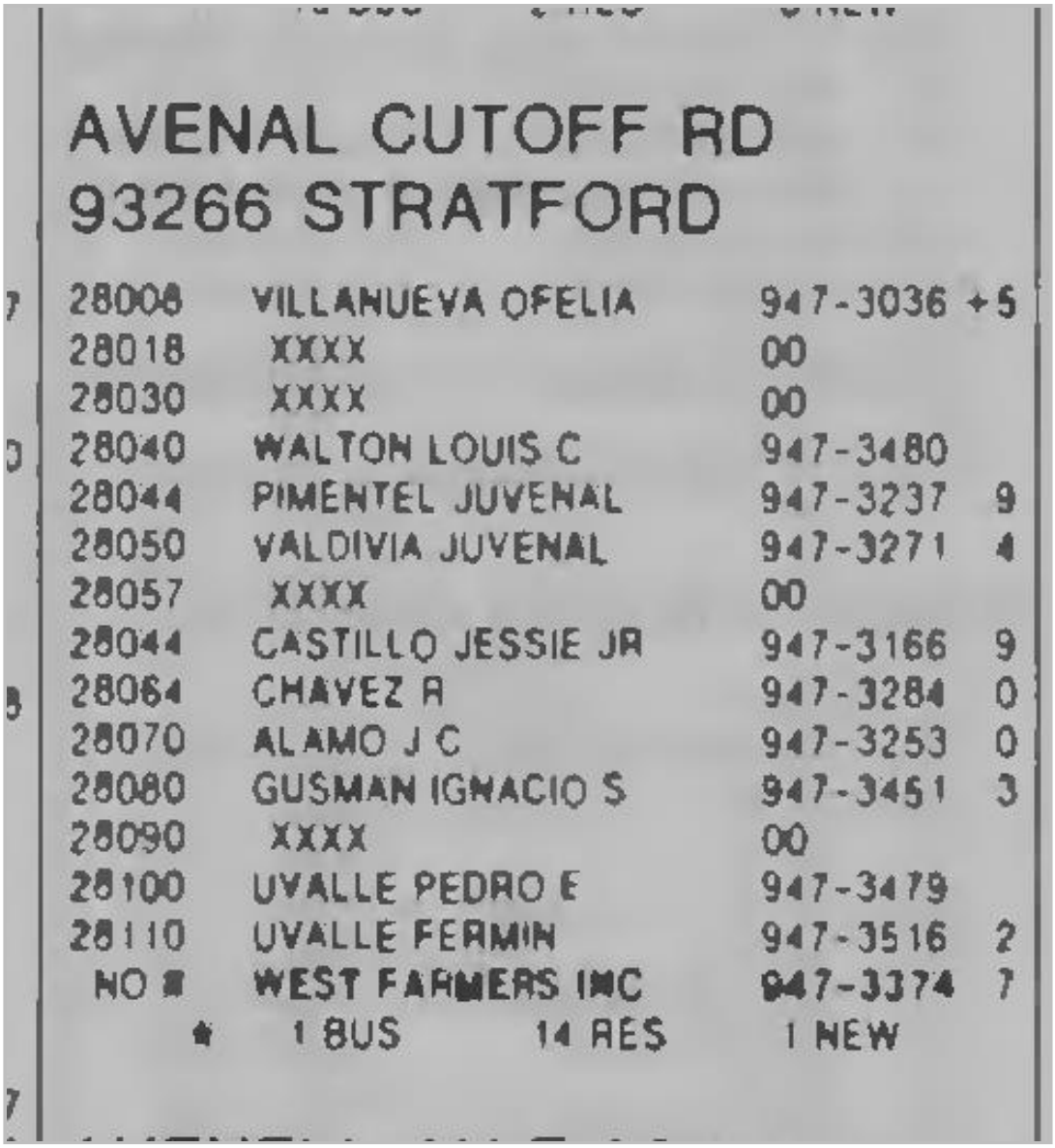
LAUREL AV 93266
STRATFORD

19038	RODRIGUES Tony Jr	947-3476	1
	*TRIPLE R FARMS	947-3521	6
19261	VAZQUEZ Javier	947-3236	
19762	XXXX	00	
19883	CONTENTE Mike	947-0085	9
	CONTENTE Tamara	947-0085	
20038	XXXX	00	
20076	XXXX	00	
20082	XXXX	00	
20087	IRIGARAY Martin	947-3295	
20122	RODRIGUES Chris	947-3519	6
20123	XXXX	00	
20158	RODRIGUES Tony L	947-3300	1
20697	SOUZA Edw	947-3018	
20751	XXXX	00	
20782	XXXX	00	
20784	MARTIN Chad	947-3609	6
	MARTIN Norman H	947-3247	
21722	XXXX	00	
21872	XXXX	00	
21900	*EMPIRE WSTSD IRRGTN	947-3027	
22242	XXXX	00	

* 2 BUS 20 RES 0 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1985



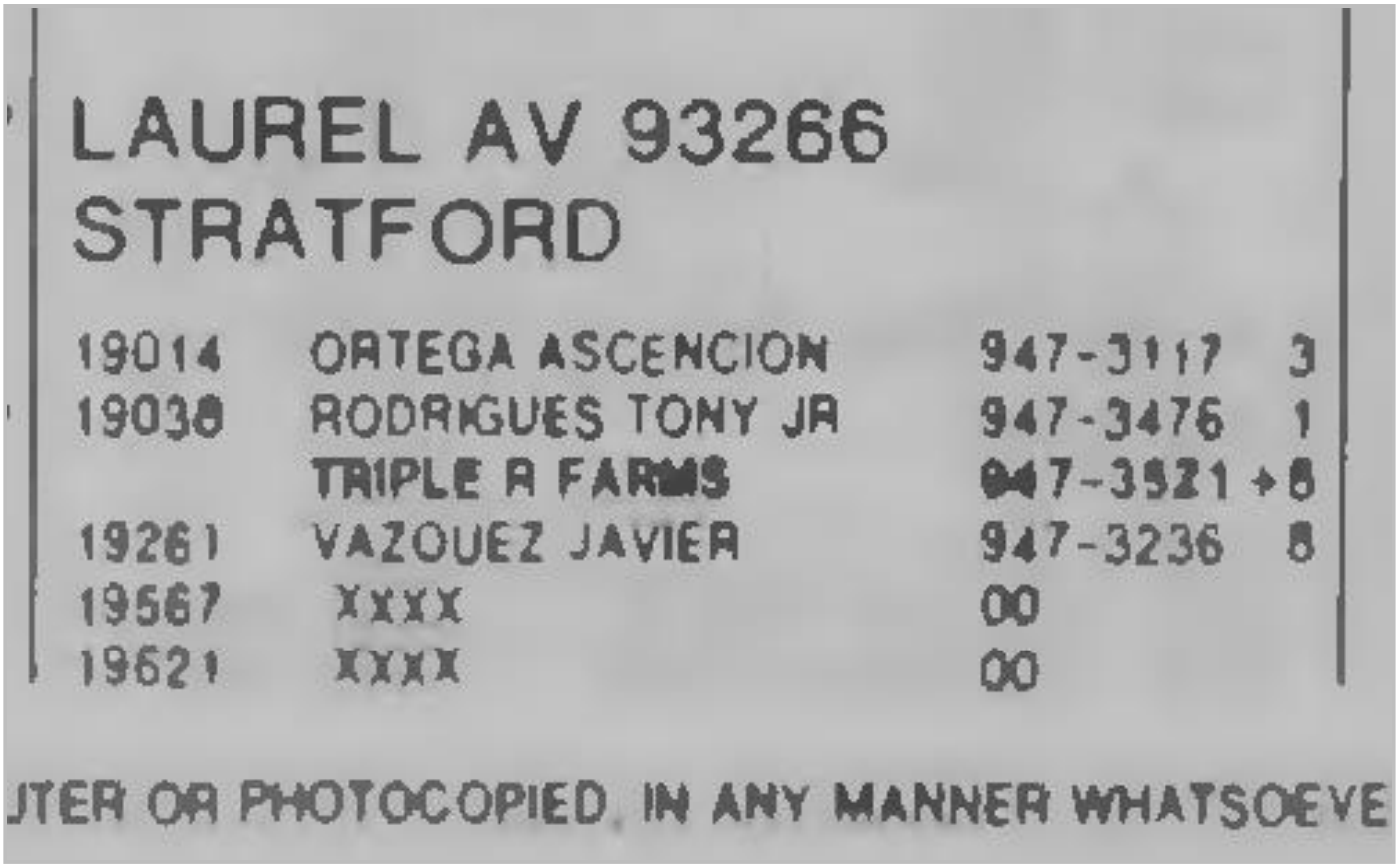
AVENAL CUTOFF RD
93266 STRATFORD

28008	VILLANUEVA OFELIA	947-3036	+5
28018	XXXX	00	
28030	XXXX	00	
28040	WALTON LOUIS C	947-3480	
28044	PIMENTEL JUVENAL	947-3237	9
28050	VALDIVIA JUVENAL	947-3271	4
28057	XXXX	00	
28044	CASTILLO JESSIE JR	947-3166	9
28064	CHAVEZ R	947-3284	0
28070	ALAMO J C	947-3253	0
28080	GUSMAN IGNACIO S	947-3451	3
28090	XXXX	00	
28100	UVALLE PEDRO E	947-3479	
28110	UVALLE FERMIN	947-3516	2
NO #	WEST FARMERS INC	947-3374	7

* 1 BUS 14 RES 1 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

LAUREL AVE 1985



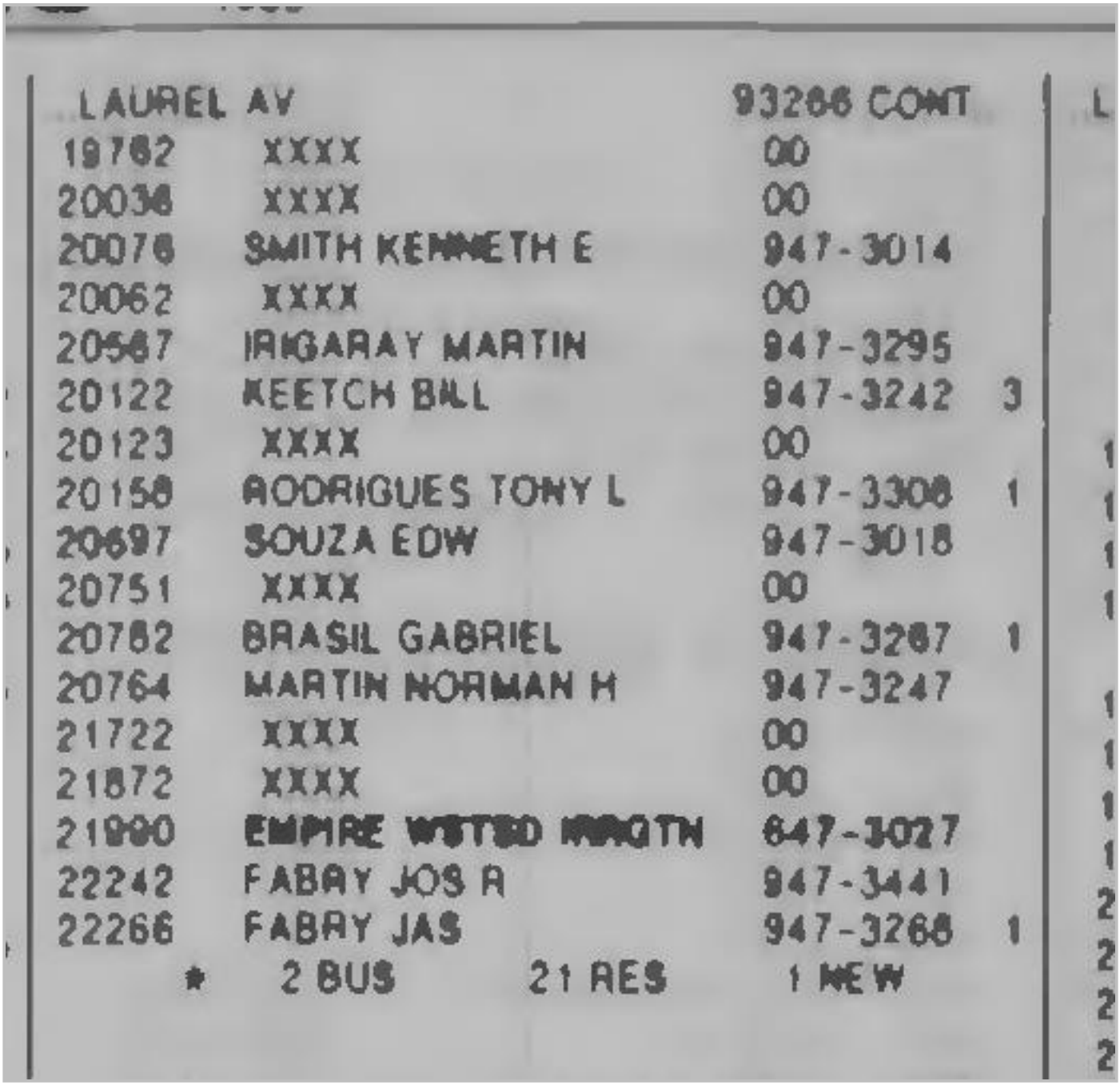
LAUREL AV 93266
STRATFORD

19014	ORTEGA ASCENCION	947-3117	3
19038	RODRIGUES TONY JR	947-3476	1
	TRIPLE R FARMS	947-3521	+8
19261	VAZQUEZ JAVIER	947-3236	8
19567	XXXX	00	
19621	XXXX	00	

JTER OR PHOTOCOPIED, IN ANY MANNER WHATSOEVE

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

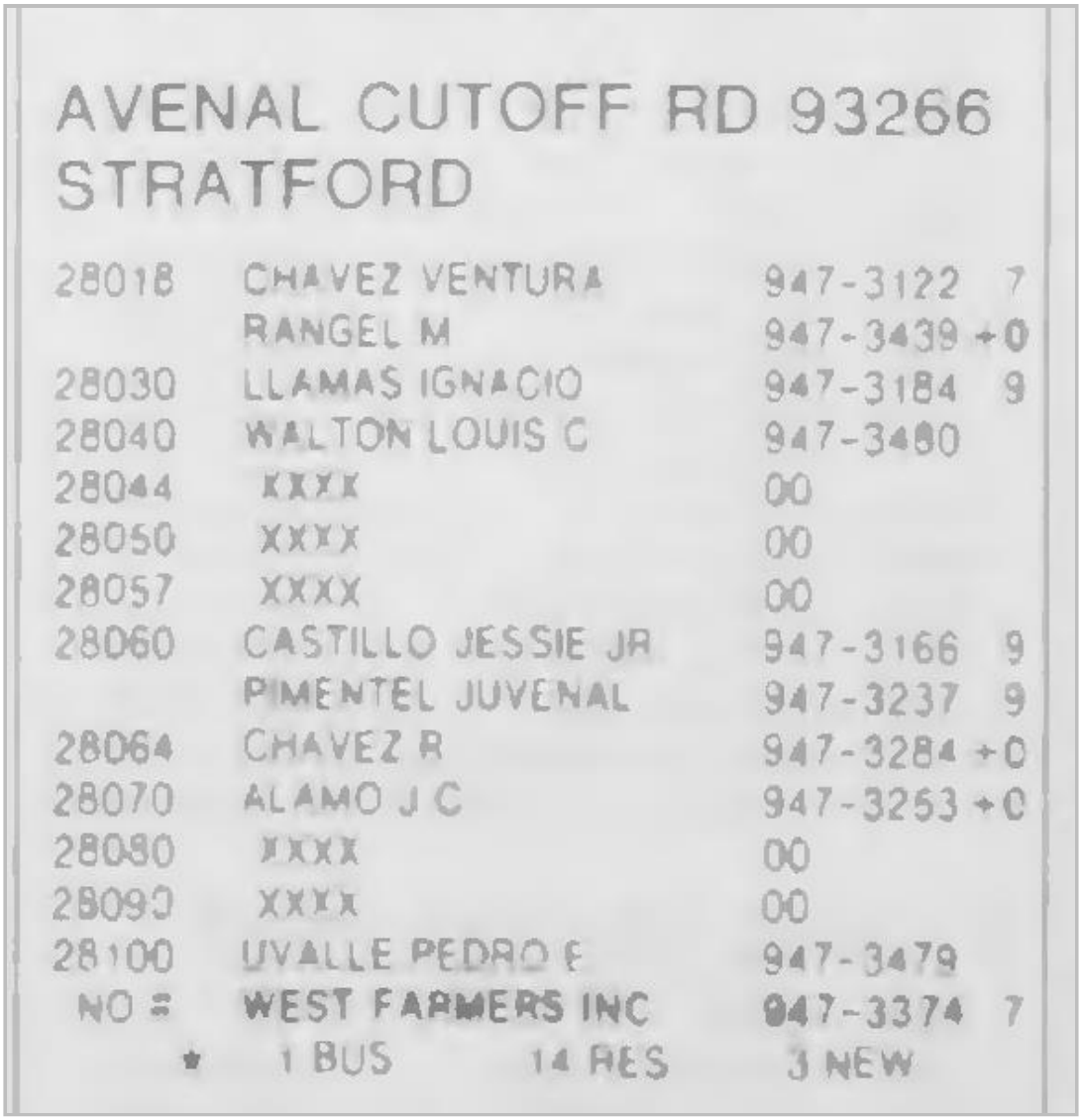
LAUREL AVE 1985



LAUREL AV		93286 CONT	
19762	XXXX	00	
20036	XXXX	00	
20076	SMITH KENNETH E	947-3014	
20062	XXXX	00	
20087	IRIGARAY MARTIN	947-3295	
20122	KEETCH BILL	947-3242	3
20123	XXXX	00	
20158	RODRIGUES TONY L	947-3308	1
20697	SOUZA EDW	947-3018	
20751	XXXX	00	
20782	BRASIL GABRIEL	947-3287	1
20764	MARTIN NORMAN H	947-3247	
21722	XXXX	00	
21872	XXXX	00	
21900	EMPIRE WSTED MKTG TN	647-3027	
22242	FABRY JOS A	947-3441	
22266	FABRY JAS	947-3268	1
*	2 BUS 21 RES	1 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1980

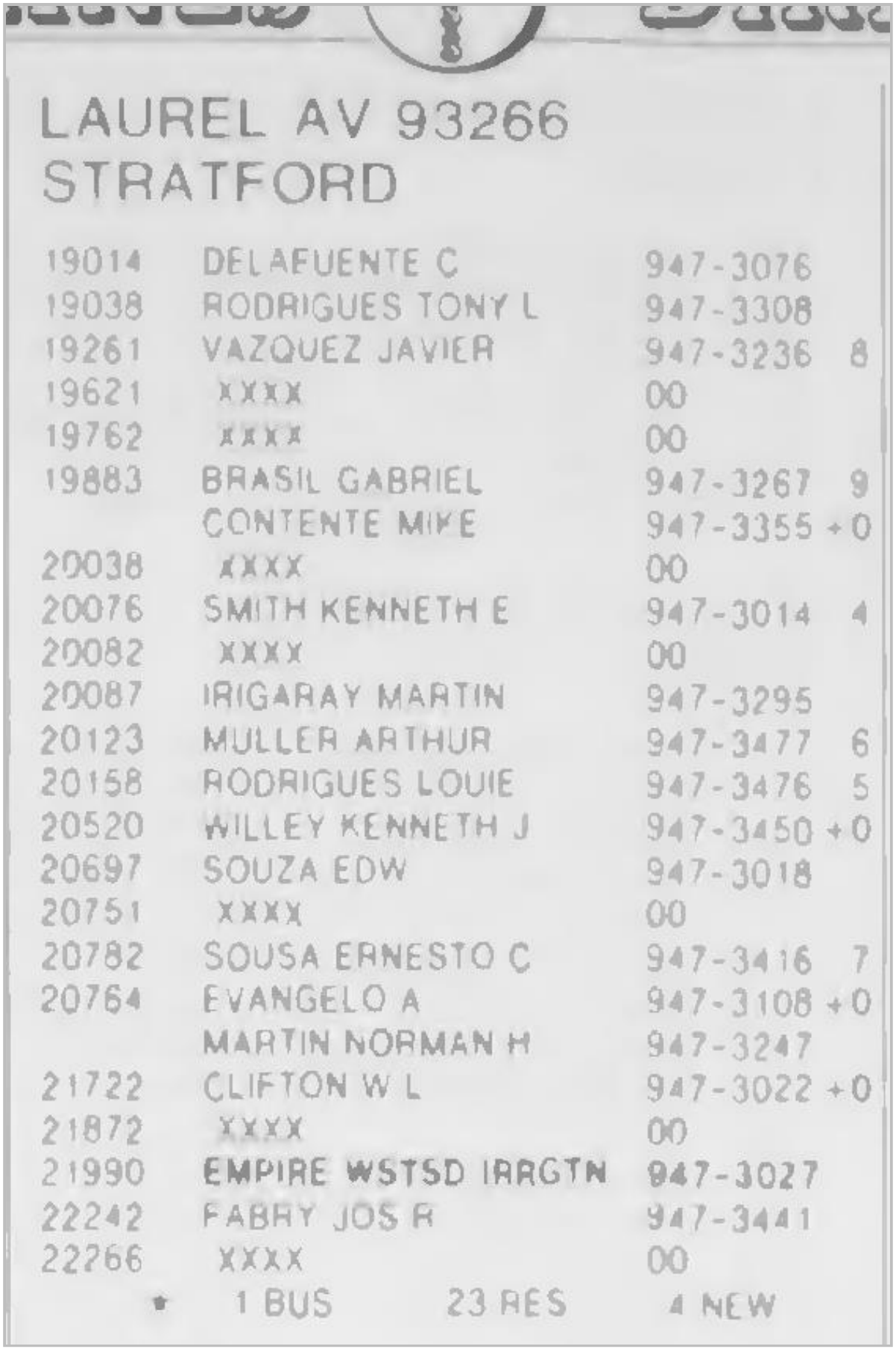


AVENAL CUTOFF RD 93266
STRATFORD

28018	CHAVEZ VENTURA	947-3122 7
	RANGEL M	947-3439 +0
28030	LLAMAS IGNACIO	947-3184 9
28040	WALTON LOUIS C	947-3480
28044	XXXX	00
28050	XXXX	00
28057	XXXX	00
28060	CASTILLO JESSIE JR	947-3166 9
	PIMENTEL JUVENAL	947-3237 9
28064	CHAVEZ R	947-3284 +0
28070	ALAMO J C	947-3253 +0
28080	XXXX	00
28090	XXXX	00
28100	UVALLE PEDRO F	947-3479
NO =	WEST FARMERS INC	947-3374 7
*	1 BUS 14 RES	3 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

LAUREL AVE 1980



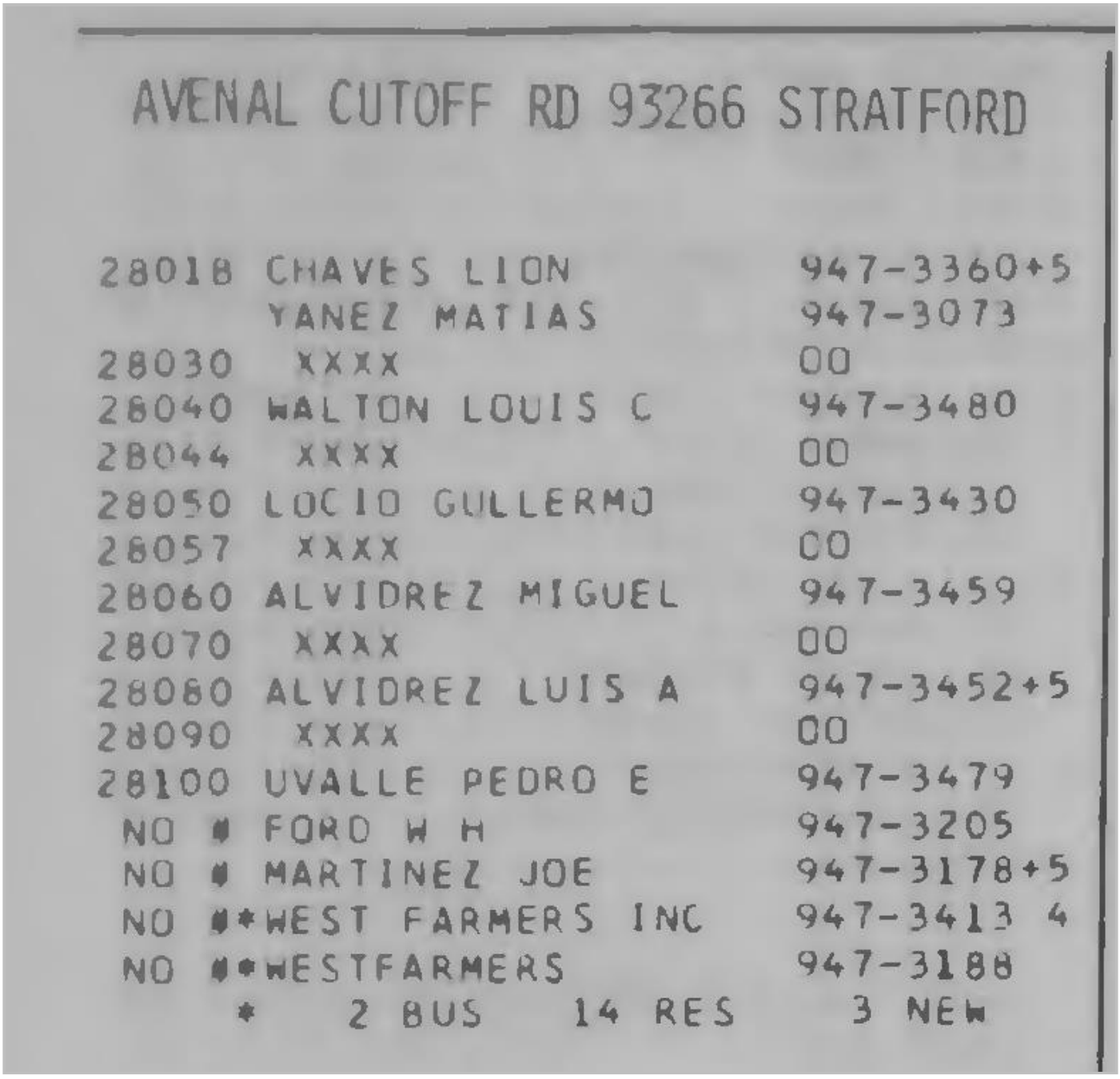
LAUREL AV 93266
STRATFORD

19014	DELAFUENTE C	947-3076	
19038	RODRIGUES TONY L	947-3308	
19261	VAZQUEZ JAVIER	947-3236	8
19621	XXXX	00	
19762	XXXX	00	
19883	BRASIL GABRIEL	947-3267	9
	CONTENTE MIKE	947-3355	+0
20038	XXXX	00	
20076	SMITH KENNETH E	947-3014	4
20082	XXXX	00	
20087	IRIGARAY MARTIN	947-3295	
20123	MULLER ARTHUR	947-3477	6
20158	RODRIGUES LOUIE	947-3476	5
20520	WILLEY KENNETH J	947-3450	+0
20697	SOUZA EDW	947-3018	
20751	XXXX	00	
20782	SOUSA ERNESTO C	947-3416	7
20764	EVANGELO A	947-3108	+0
	MARTIN NORMAN H	947-3247	
21722	CLIFTON W L	947-3022	+0
21872	XXXX	00	
21990	EMPIRE WSTSD IRRGTN	947-3027	
22242	FABRY JOS R	947-3441	
22266	XXXX	00	

* 1 BUS 23 RES 4 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1975

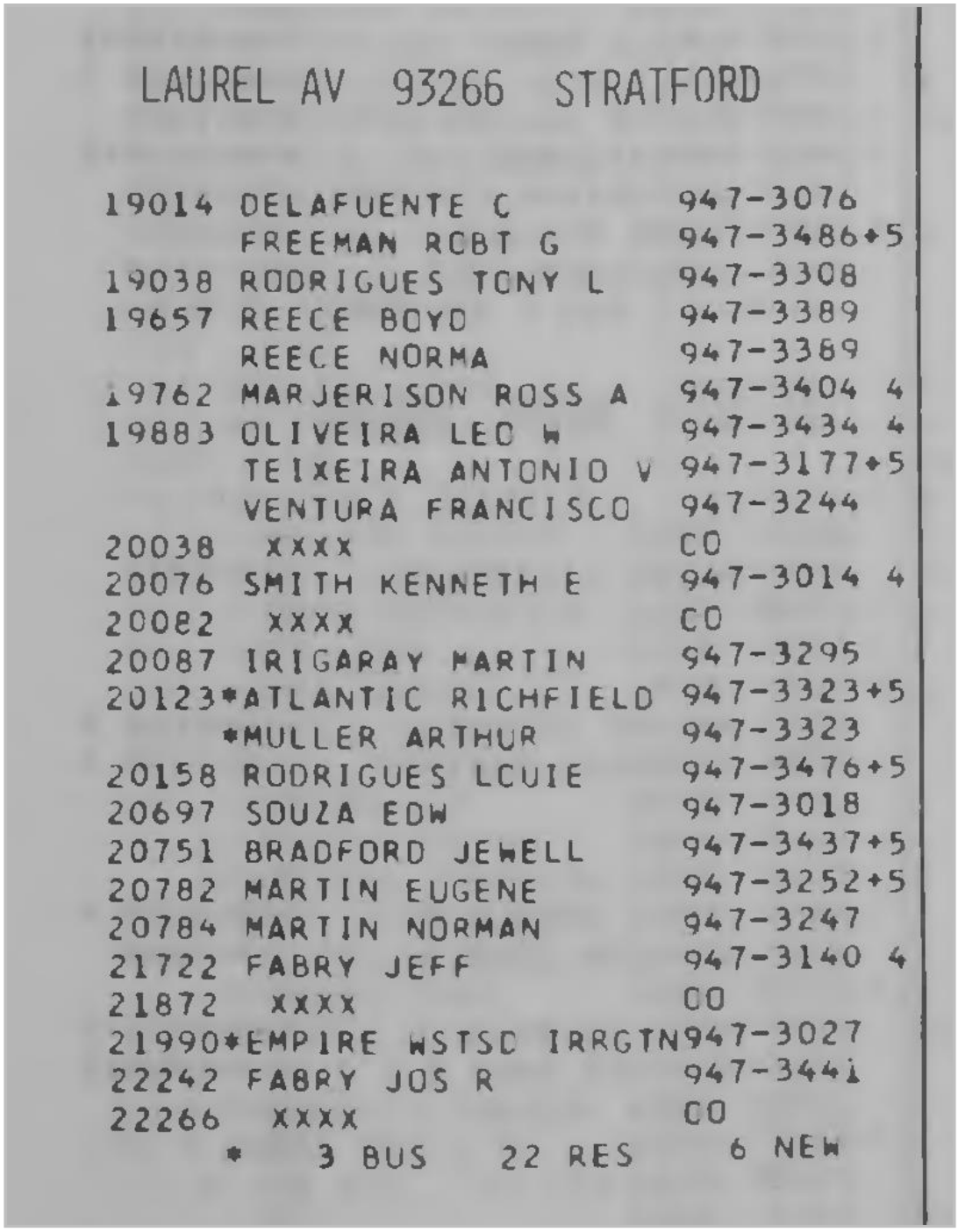


AVENAL CUTOFF RD 93266 STRATFORD

28018	CHAVES LION	947-3360+5
	YANEZ MATIAS	947-3073
28030	XXXX	OO
28040	WALTON LOUIS C	947-3480
28044	XXXX	OO
28050	LOCIO GUILLERMO	947-3430
28057	XXXX	OO
28060	ALVIDREZ MIGUEL	947-3459
28070	XXXX	OO
28080	ALVIDREZ LUIS A	947-3452+5
28090	XXXX	OO
28100	UVALLE PEDRO E	947-3479
NO #	FORD W H	947-3205
NO #	MARTINEZ JOE	947-3178+5
NO #*	WEST FARMERS INC	947-3413 4
NO #*	WESTFARMERS	947-3188
*	2 BUS 14 RES	3 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

LAUREL AVE 1975



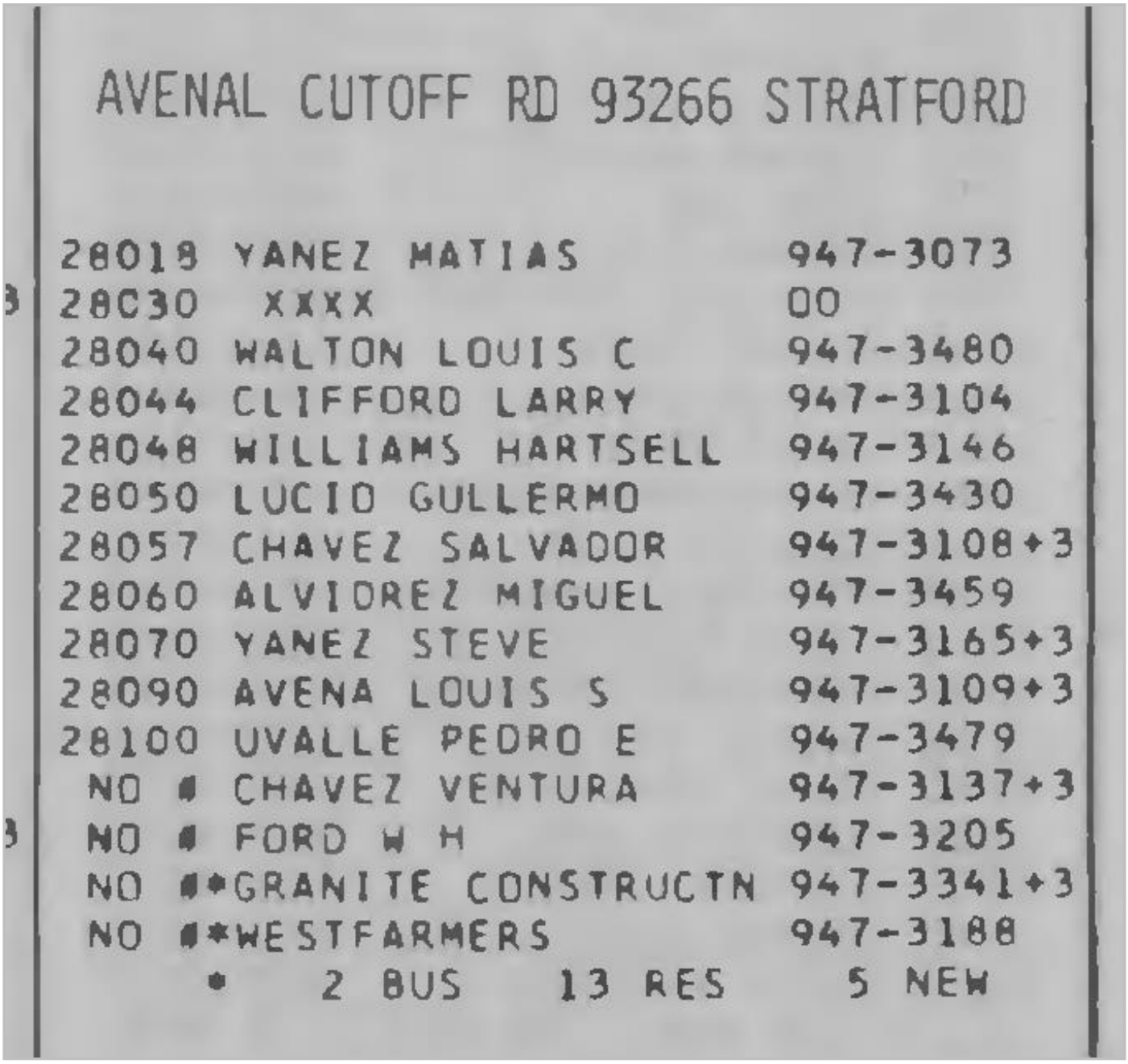
LAUREL AV 93266 STRATFORD

19014	DELAFUENTE C	947-3076
	FREEMAN ROBT G	947-3486+5
19038	RODRIGUES TONY L	947-3308
19657	REECE BOYD	947-3389
	REECE NORMA	947-3389
19762	MARJERISON ROSS A	947-3404 4
19883	OLIVEIRA LEO W	947-3434 4
	TEIXEIRA ANTONIO V	947-3177+5
	VENTURA FRANCISCO	947-3244
20038	XXXX	CO
20076	SMITH KENNETH E	947-3014 4
20082	XXXX	CO
20087	IRIGARAY MARTIN	947-3295
20123	*ATLANTIC RICHFIELD	947-3323+5
	*MULLER ARTHUR	947-3323
20158	RODRIGUES LOUIE	947-3476+5
20697	SOUZA EDW	947-3018
20751	BRADFORD JEWELL	947-3437+5
20782	MARTIN EUGENE	947-3252+5
20784	MARTIN NORMAN	947-3247
21722	FABRY JEFF	947-3140 4
21872	XXXX	CO
21990	*EMPIRE WSTSD IRRGTN	947-3027
22242	FABRY JOS R	947-3441
22266	XXXX	CO

* 3 BUS 22 RES 6 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

AVENAL CUTOFF RD 1973



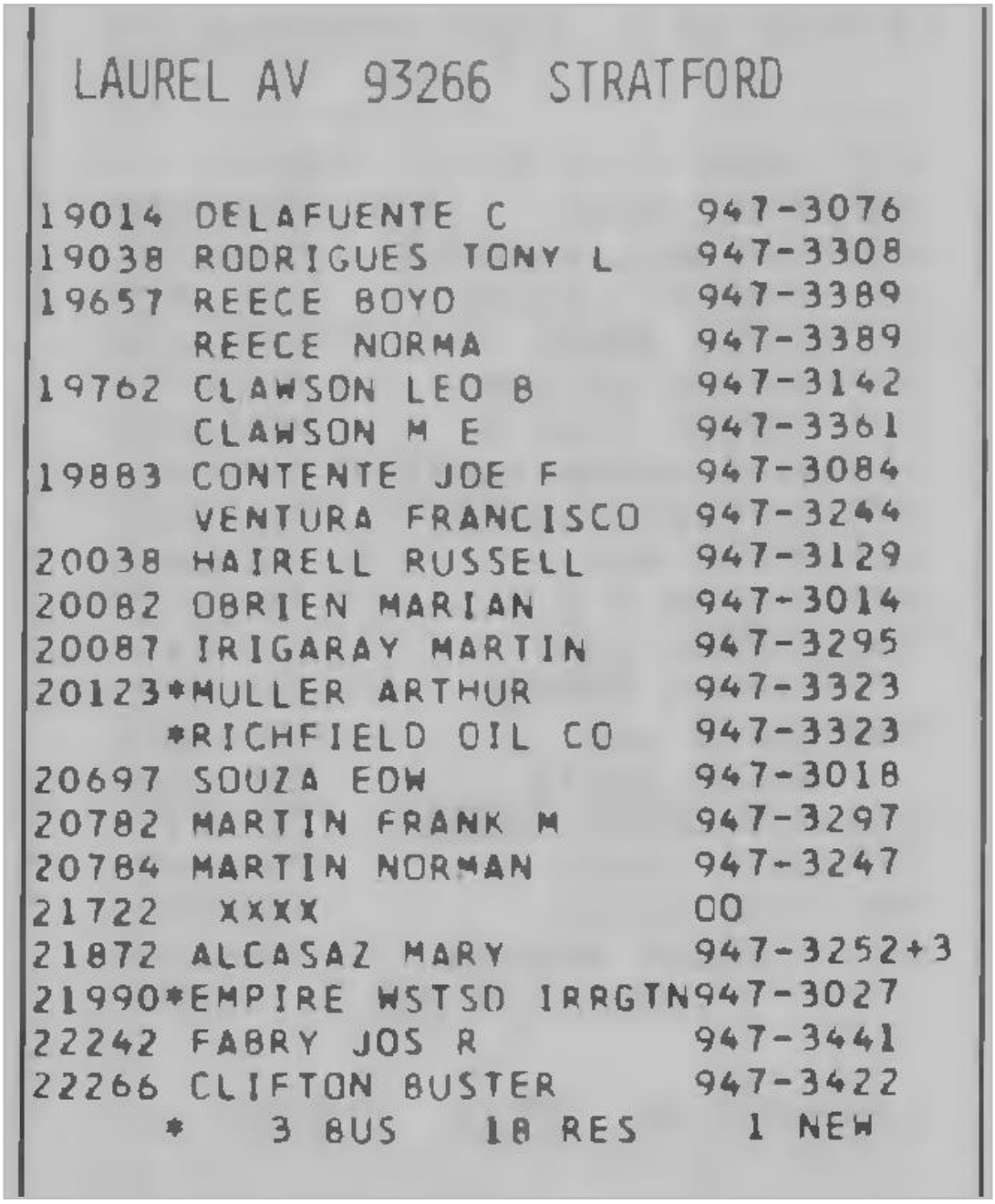
AVENAL CUTOFF RD 93266 STRATFORD

	28018	YANEZ MATIAS	947-3073
3	28C30	XXXX	OO
	28040	WALTON LOUIS C	947-3480
	28044	CLIFFORD LARRY	947-3104
	28048	WILLIAMS HARTSELL	947-3146
	28050	LUCIO GULLERMO	947-3430
	28057	CHAVEZ SALVADOR	947-3108+3
	28060	ALVIOREZ MIGUEL	947-3459
	28070	YANEZ STEVE	947-3165+3
	28090	AVENA LOUIS S	947-3109+3
	28100	UVALLE PEDRO E	947-3479
	NO #	CHAVEZ VENTURA	947-3137+3
3	NO #	FORD W H	947-3205
	NO #	*GRANITE CONSTRUCTN	947-3341+3
	NO #	*WESTFARMERS	947-3188

* 2 BUS 13 RES 5 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

LAUREL AVE 1973



LAUREL AV 93266 STRATFORD

19014	DELAFUENTE C	947-3076
19038	RODRIGUES TONY L	947-3308
19657	REECE BOYD	947-3389
	REECE NORMA	947-3389
19762	CLAWSON LEO B	947-3142
	CLAWSON M E	947-3361
19883	CONTENTE JOE F	947-3084
	VENTURA FRANCISCO	947-3244
20038	HAIRELL RUSSELL	947-3129
20082	OBRIEN MARIAN	947-3014
20087	IRIGARAY MARTIN	947-3295
20123	*MULLER ARTHUR	947-3323
	*RICHFIELD OIL CO	947-3323
20697	SOUZA EDW	947-3018
20782	MARTIN FRANK M	947-3297
20784	MARTIN NORMAN	947-3247
21722	XXXX	OO
21872	ALCASAZ MARY	947-3252+3
21990	*EMPIRE WSTSD IRRGTN	947-3027
22242	FABRY JOS R	947-3441
22266	CLIFTON BUSTER	947-3422
	* 3 BUS 18 RES	1 NEW

Westland Solar Park
Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266

Inquiry Number: 7385289.5
July 10, 2023

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

07/10/23

Site Name:

Westland Solar Park
Avenal Cutoff Road & Laurel A
Stratford, CA 93266
EDR Inquiry # 7385289.5

Client Name:

MooreTwining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721
Contact: Sara Bloom

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. EDRs 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:

P.O.# NA
Project: 23-0427

Coordinates:

Latitude:	36.187945 36° 11' 17" North
Longitude:	-119.93427 -119° 56' 3" West
UTM Zone:	Zone 11 North
UTM X Meters:	236134.93
UTM Y Meters:	4008786.00
Elevation:	242.29' above sea level

Maps Provided:

2018
2015
2012
1981
1956
1943
1940
1929

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets

Westhaven
2018
7.5-minute, 24000

2015 Source Sheets

Westhaven
2015
7.5-minute, 24000

2012 Source Sheets

Westhaven
2012
7.5-minute, 24000

1981 Source Sheets

Westhaven
1981
7.5-minute, 24000
Aerial Photo Revised 1978

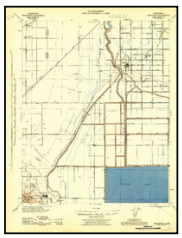
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1956 Source Sheets

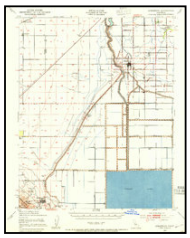
Westhaven
1956
7.5-minute, 24000
Aerial Photo Revised 1955

1943 Source Sheets



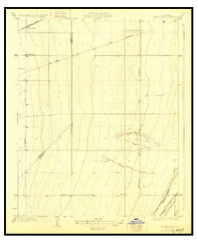
Stratford
1943
15-minute, 62500
Aerial Photo Revised 1940

1940 Source Sheets



Stratford
1940
15-minute, 62500
Aerial Photo Revised 1940

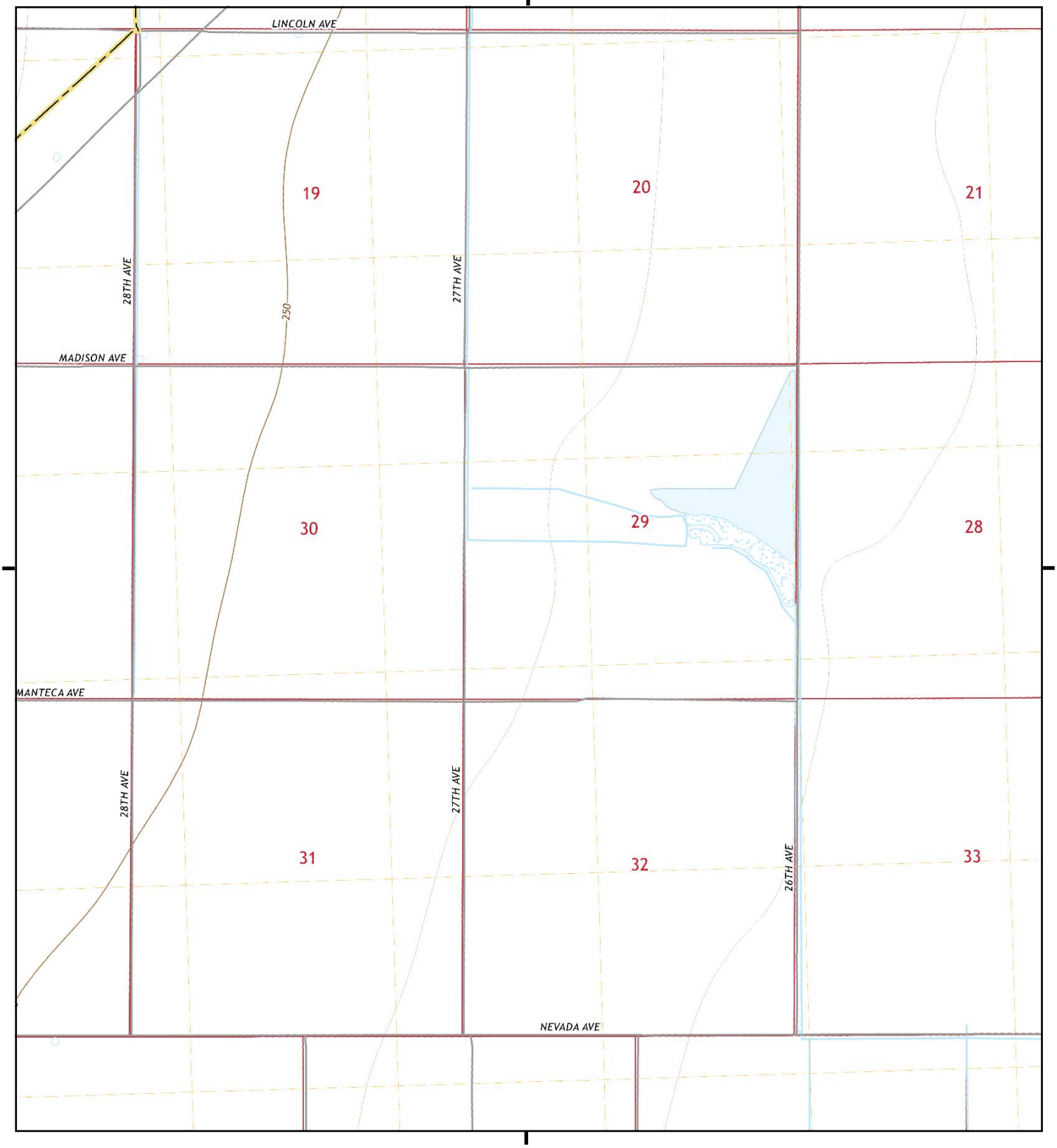
1929 Source Sheets



Westhaven
1929
7.5-minute, 31680

Historical Topo Map

2018



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

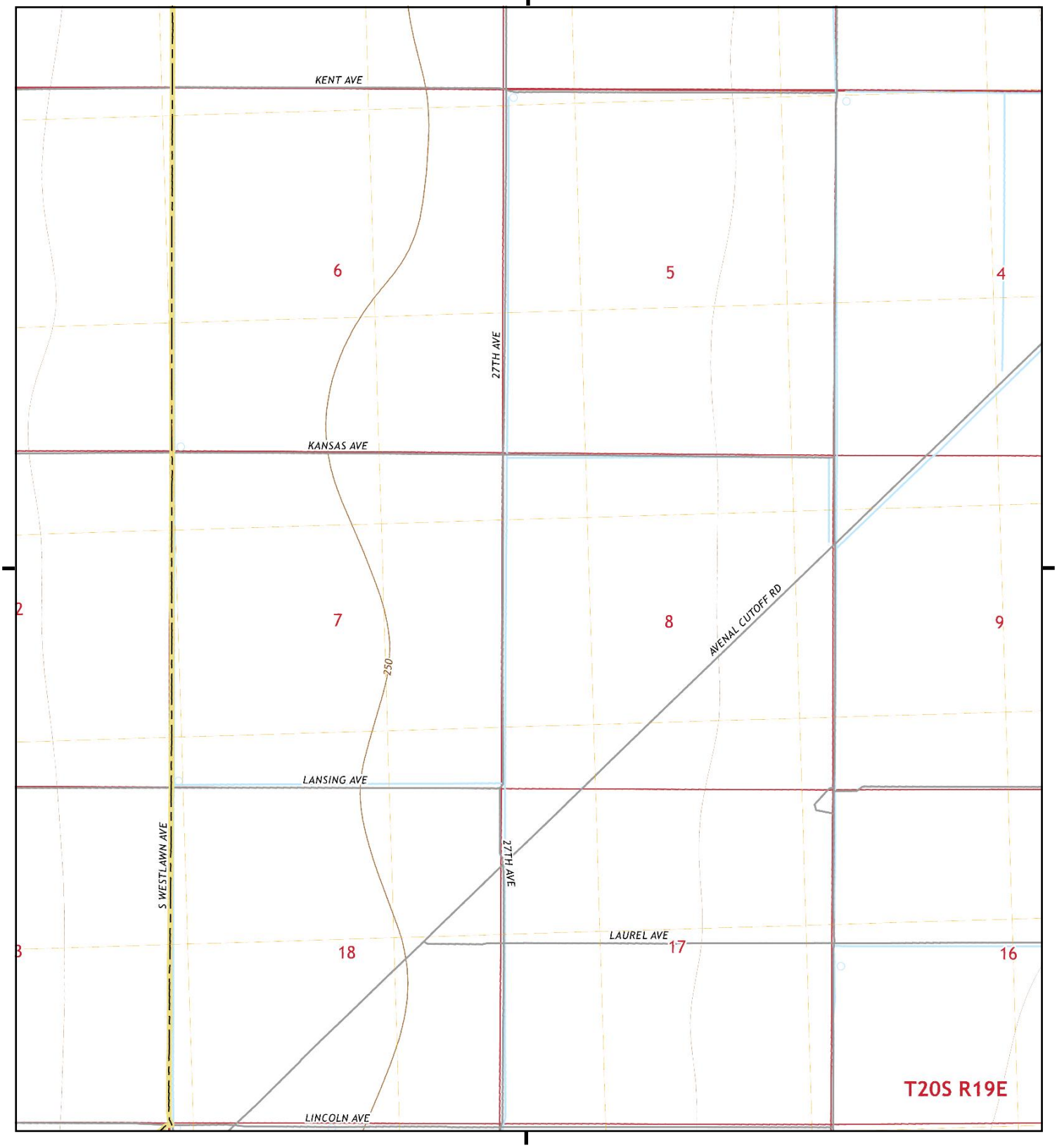
TP, Westhaven, 2018, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

2018



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

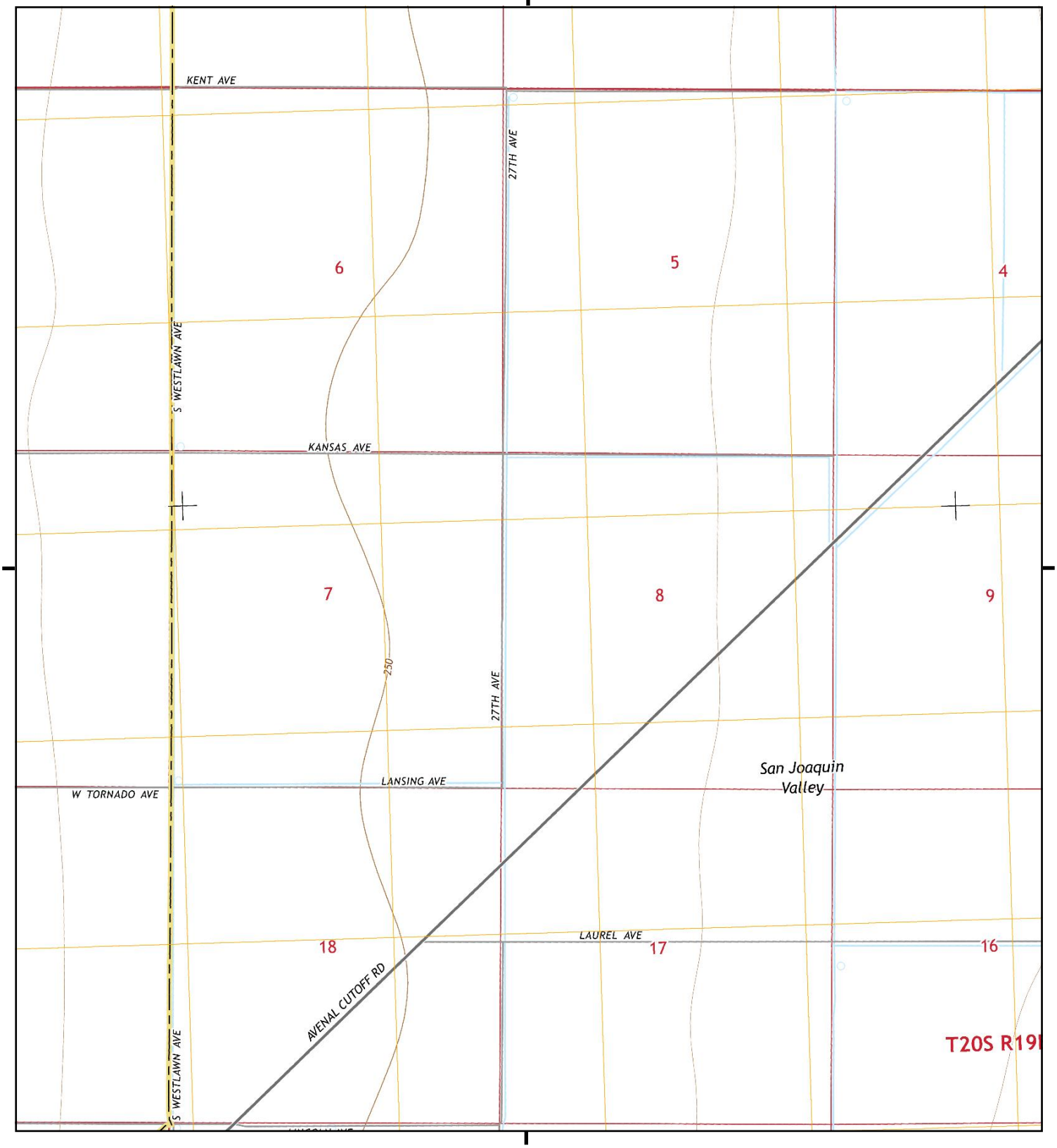
TP, Westhaven, 2018, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

2015



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Westhaven, 2015, 7.5-minute

SITE NAME: Westland Solar Park
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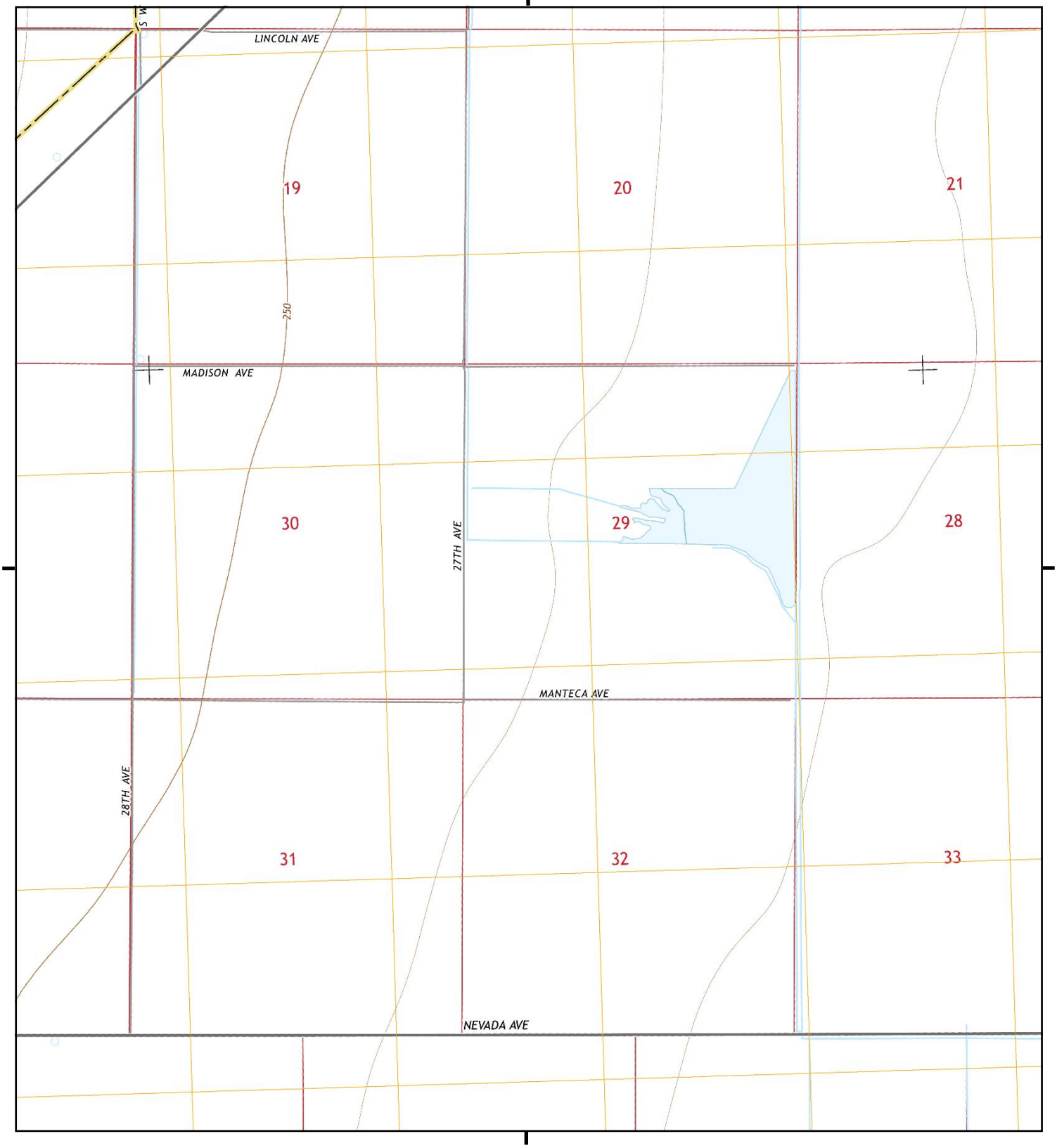
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

2015



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

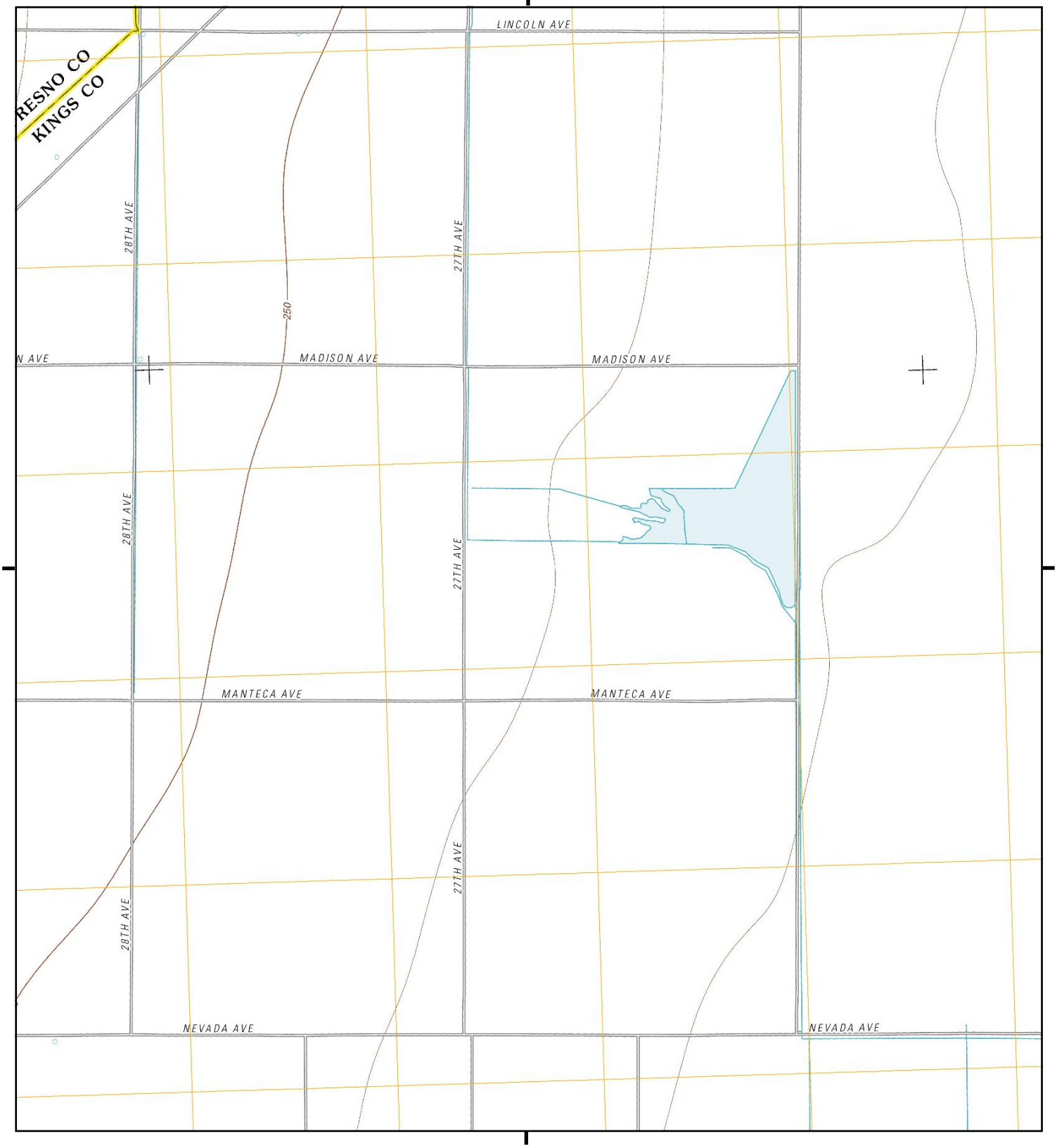
TP, Westhaven, 2015, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

2012



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Westhaven, 2012, 7.5-minute

SITE NAME: Westland Solar Park
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Stratford, CA 93266
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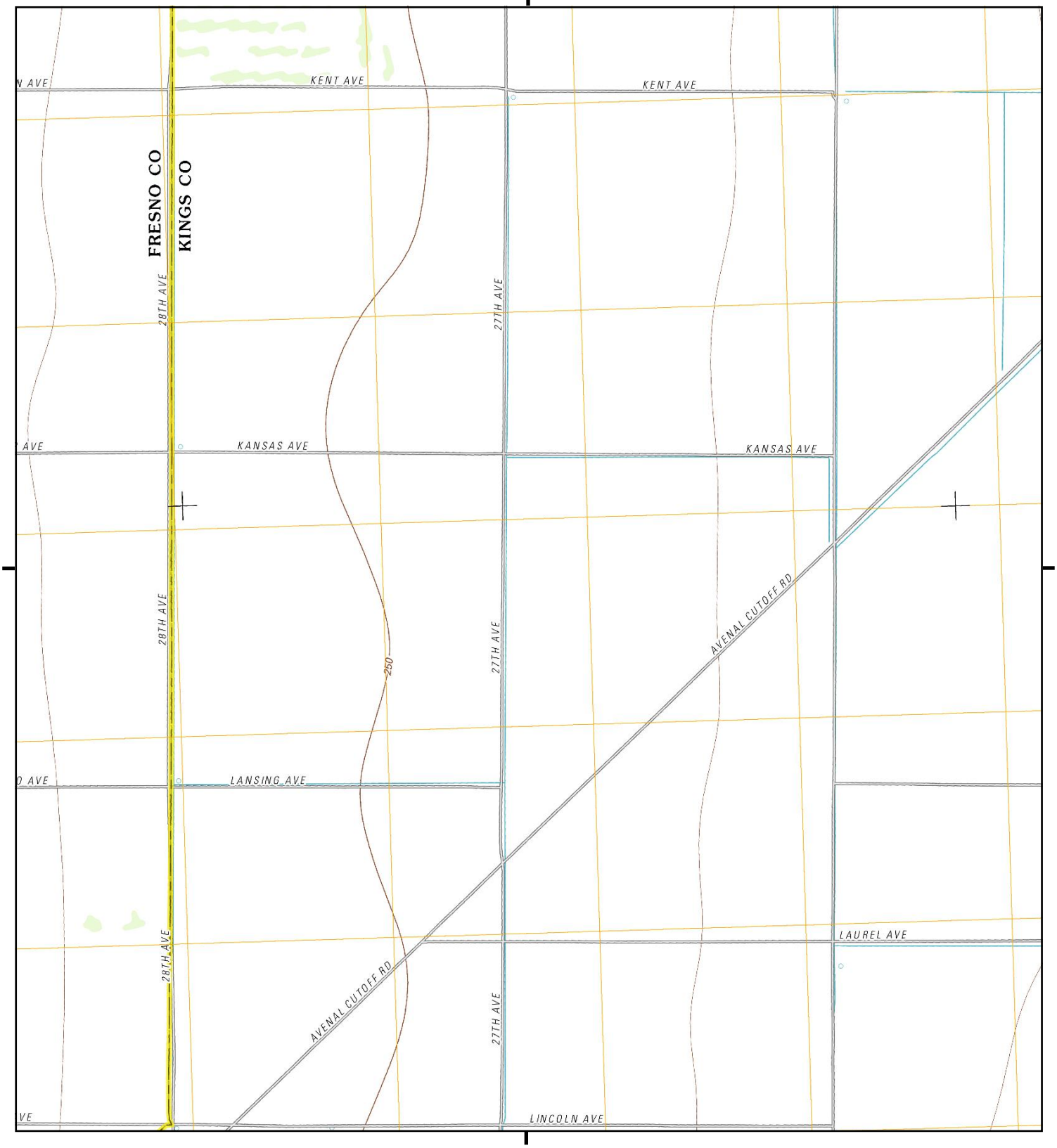
N

Historical Topo Map

2012



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NW N NE
W E
SW S SE

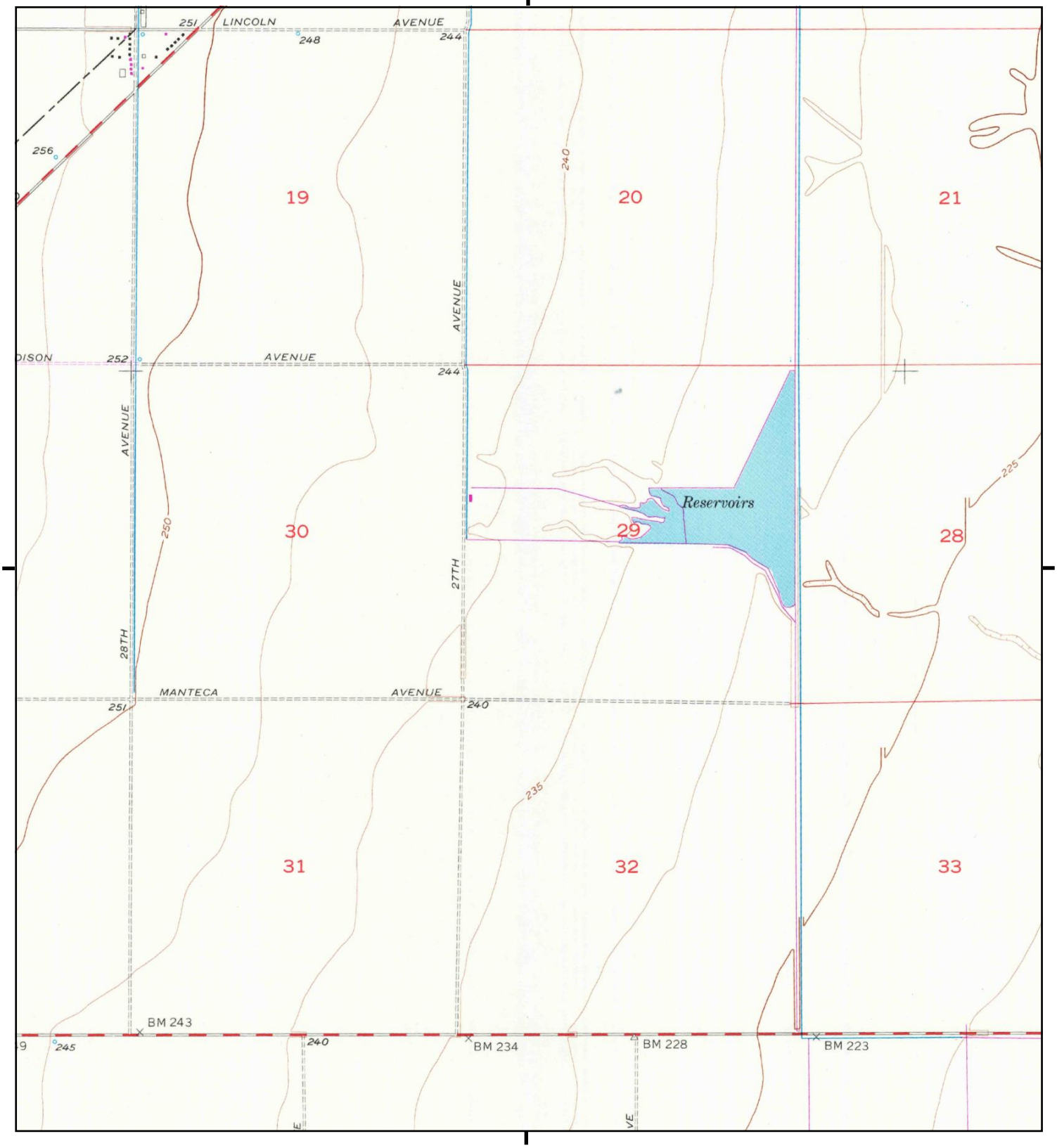
TP, Westhaven, 2012, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

1981



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NW N NE
W E
SW S SE

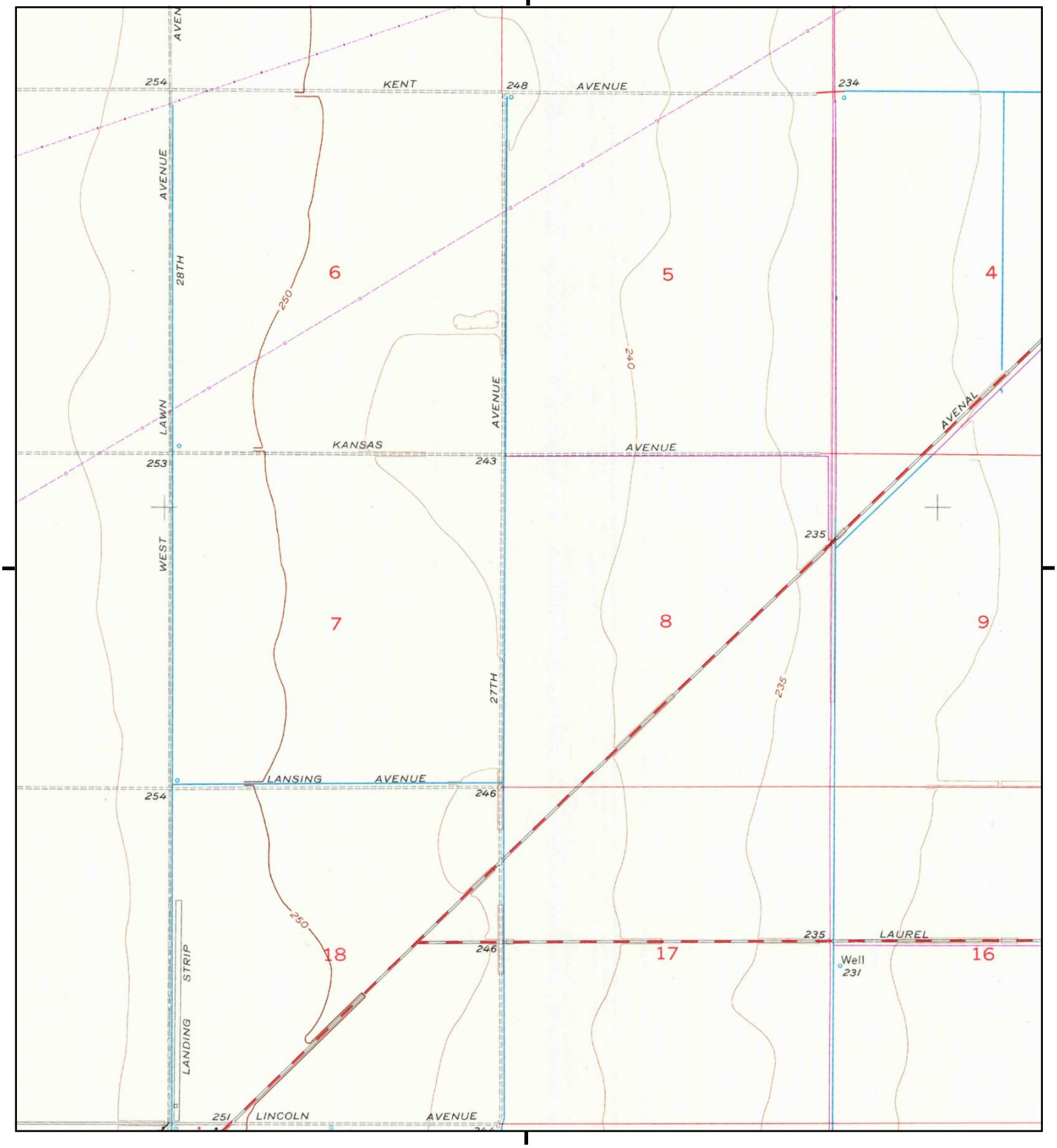
TP, Westhaven, 1981, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

1981



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

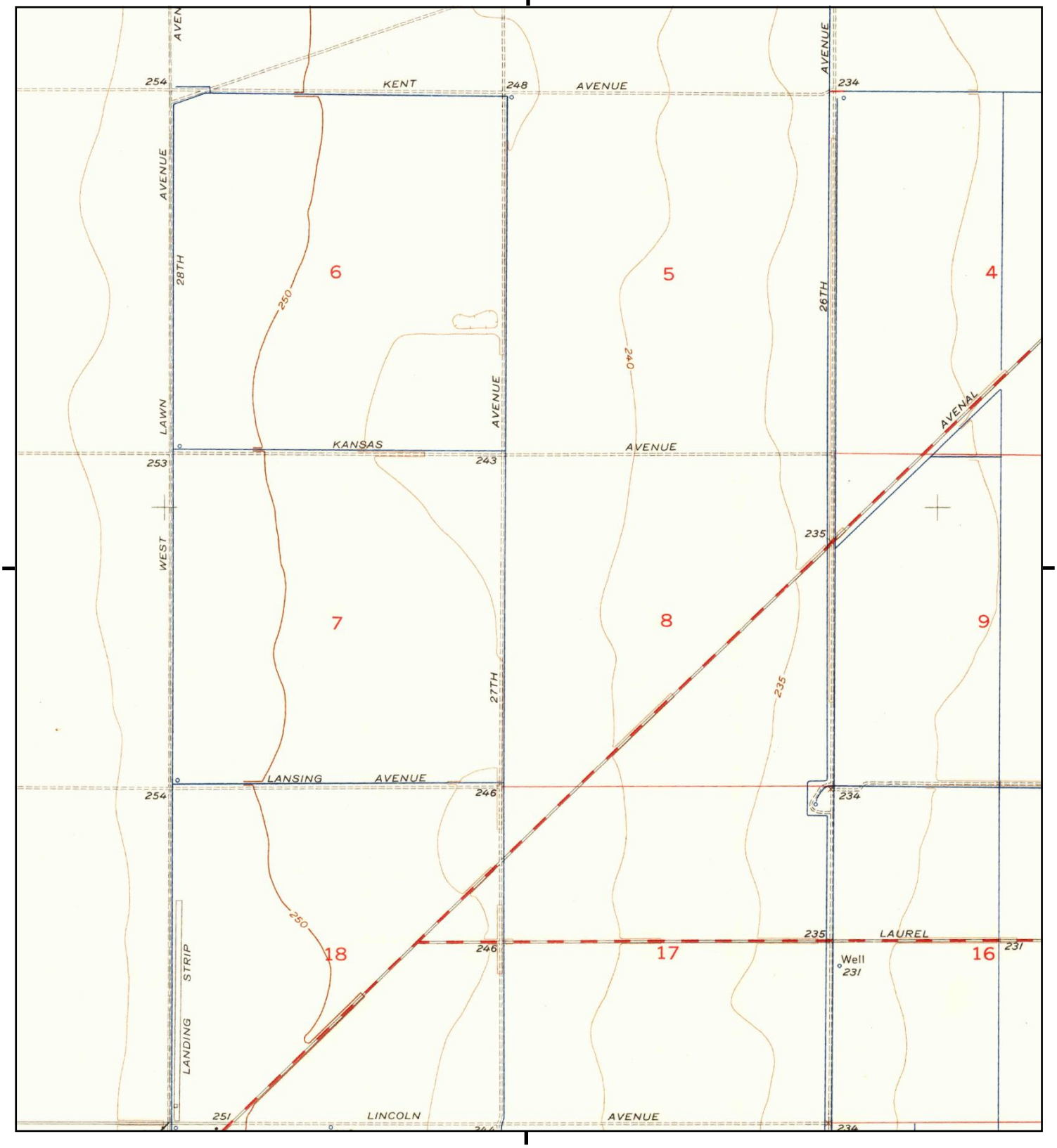
TP, Westhaven, 1981, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

1956



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Westhaven, 1956, 7.5-minute

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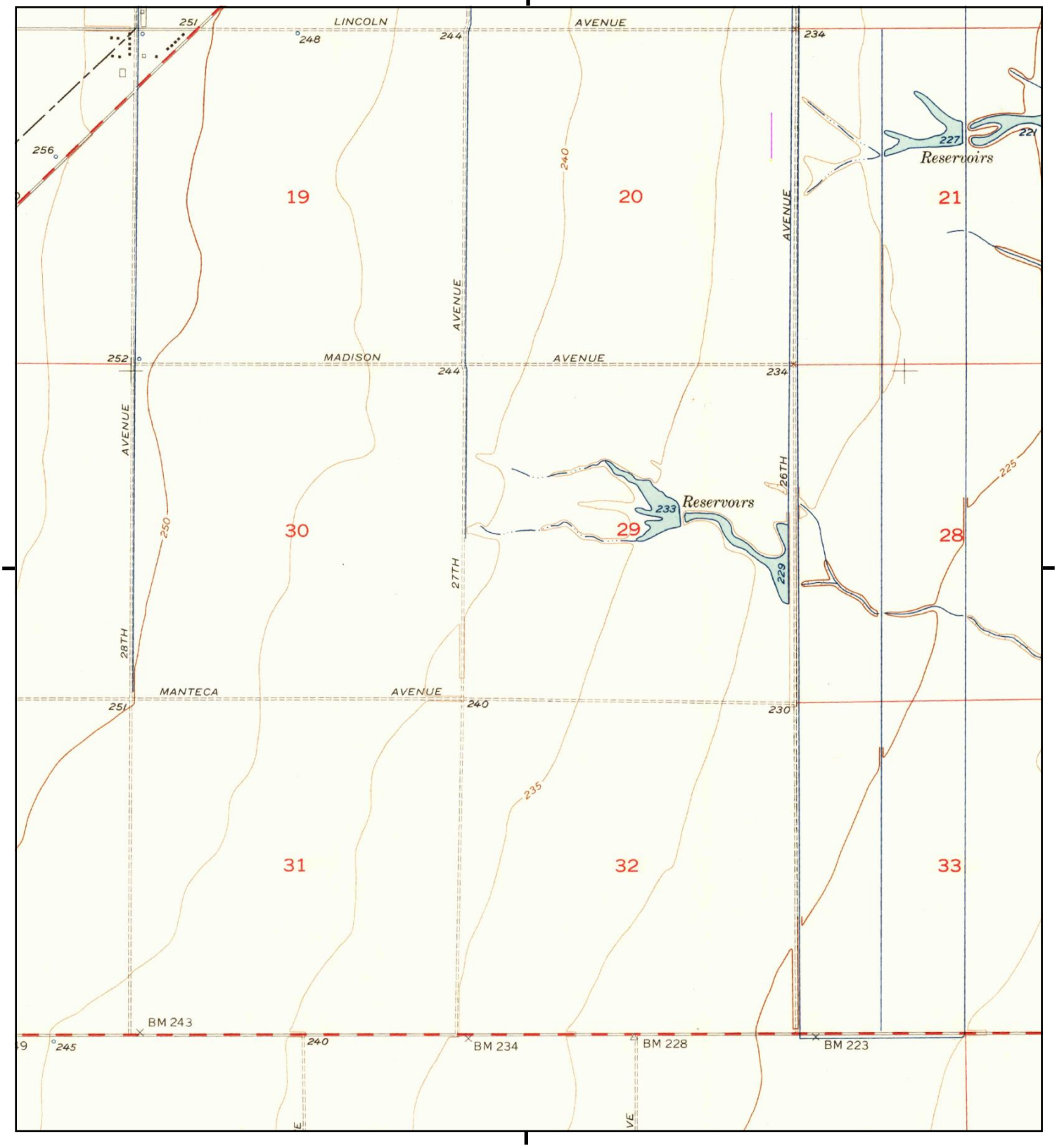
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

1956



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Westhaven, 1956, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

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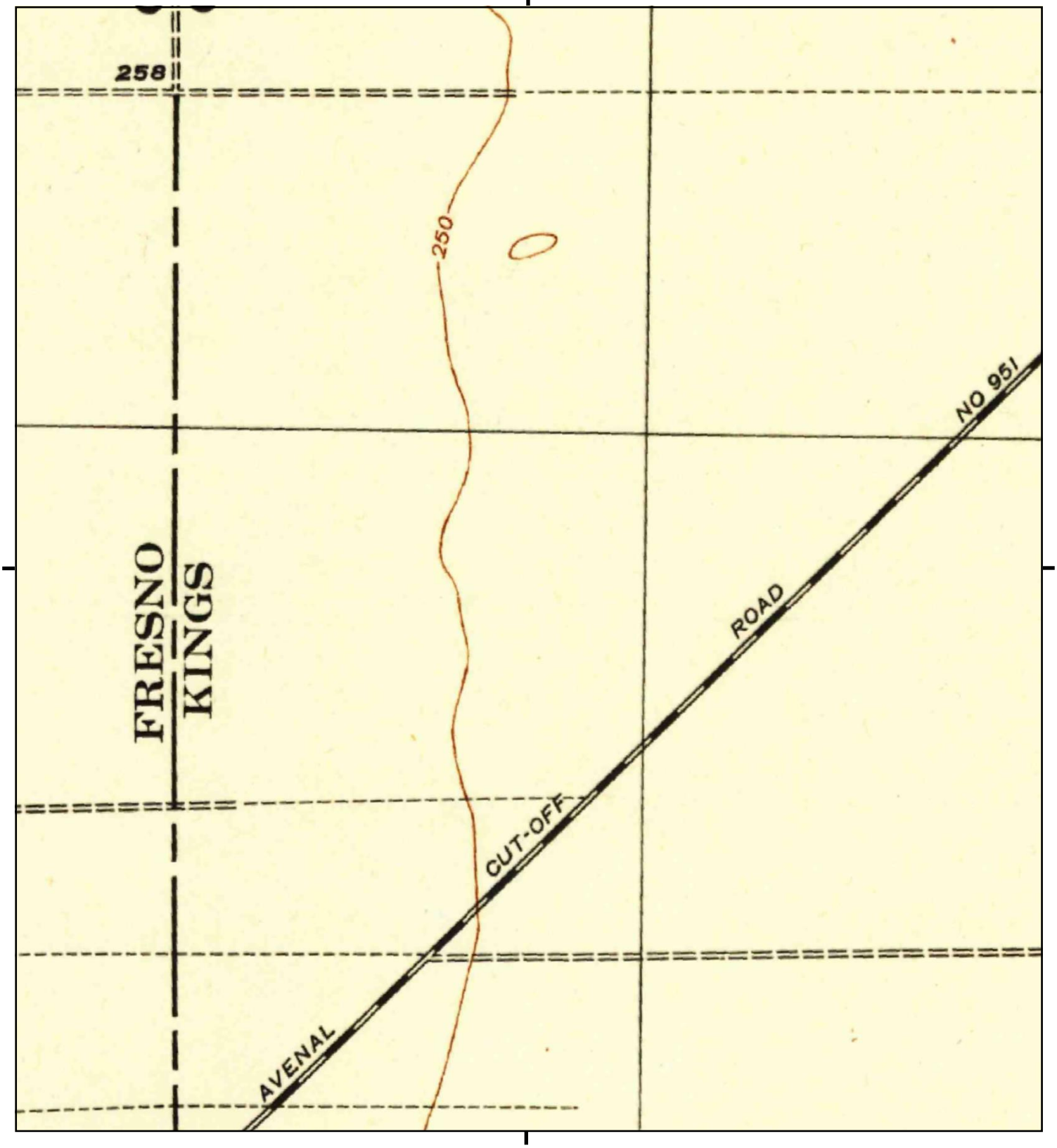

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Stratford, 1943, 15-minute

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ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

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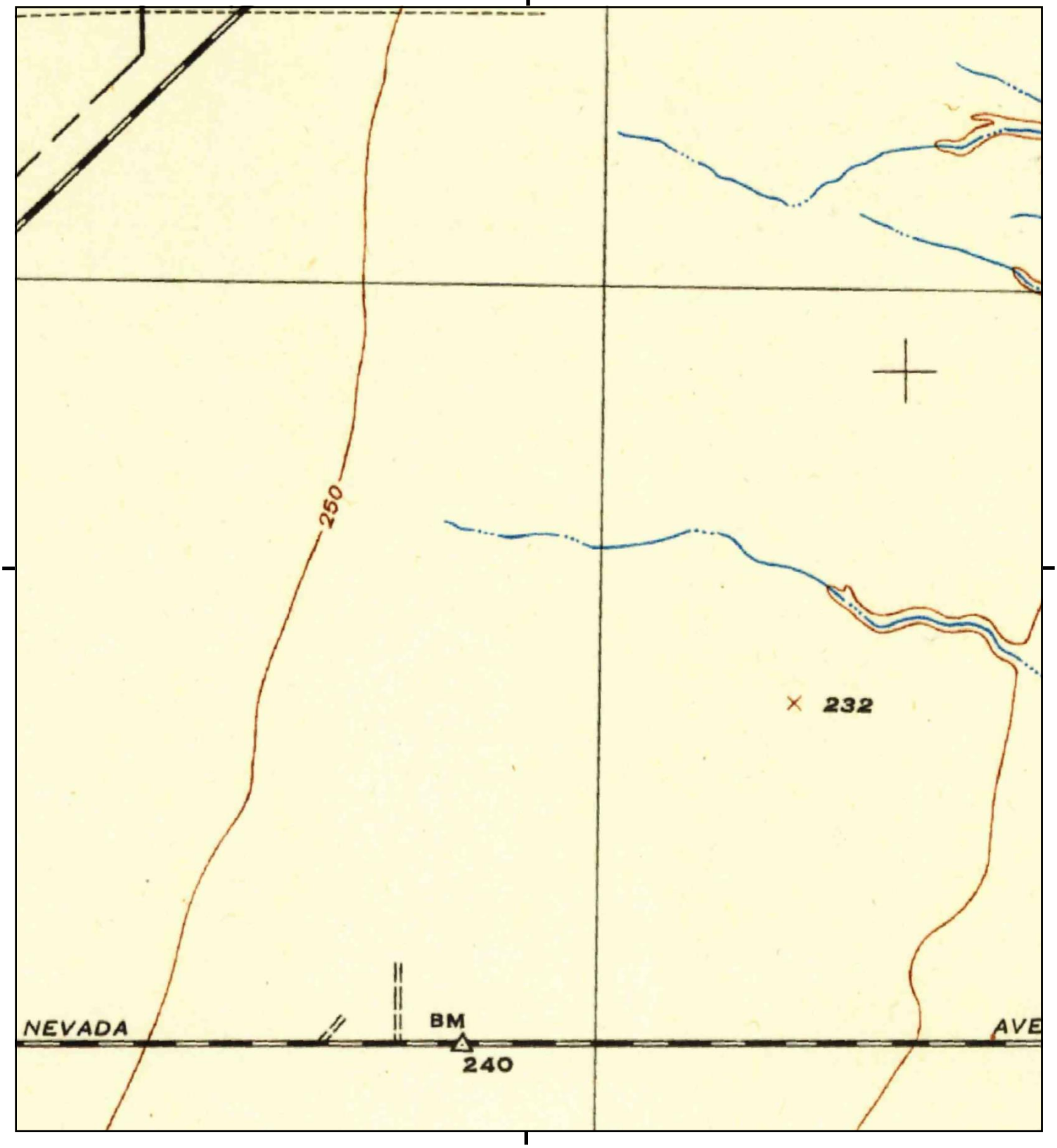

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Stratford, 1943, 15-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

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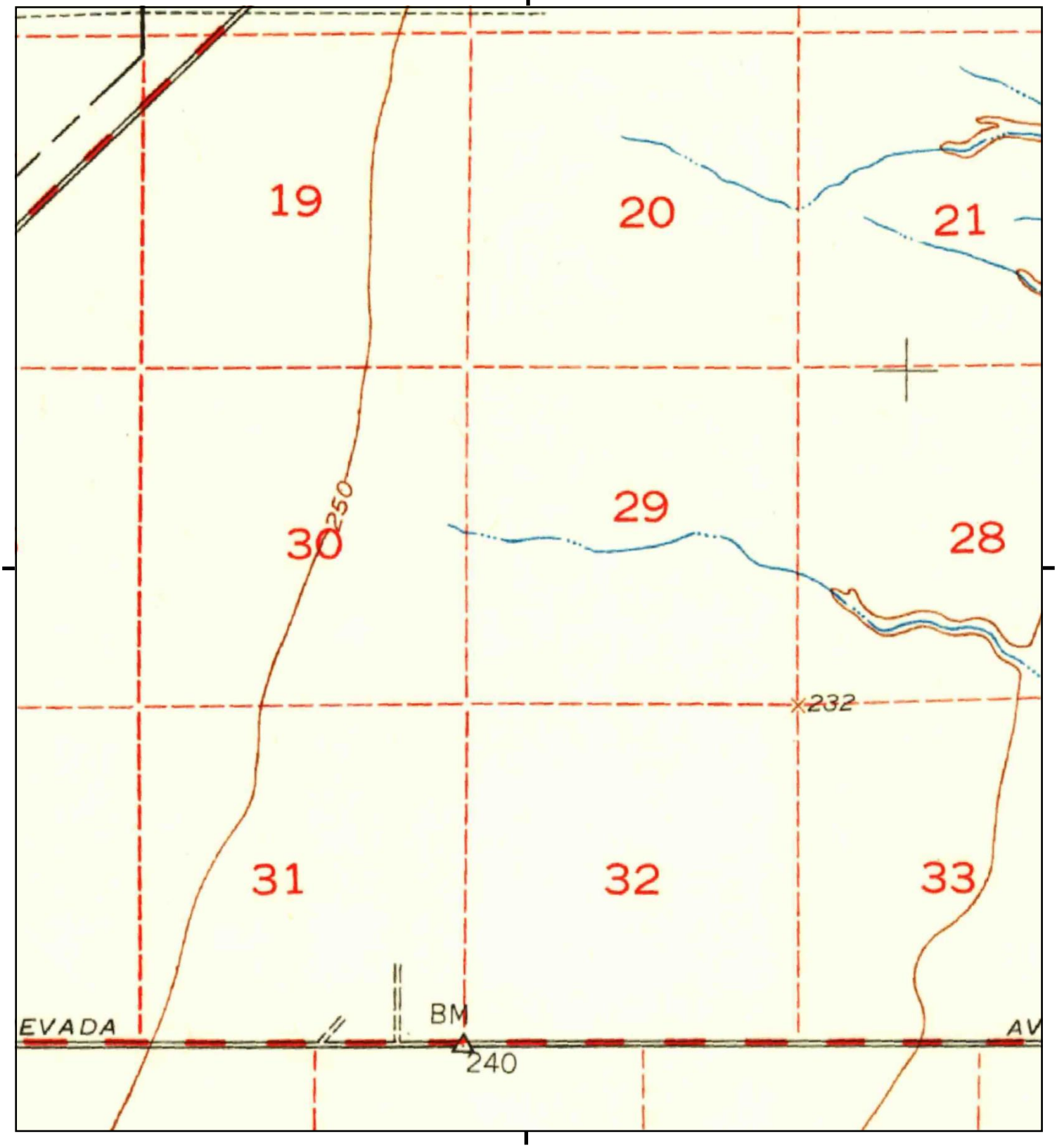

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Stratford, 1940, 15-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

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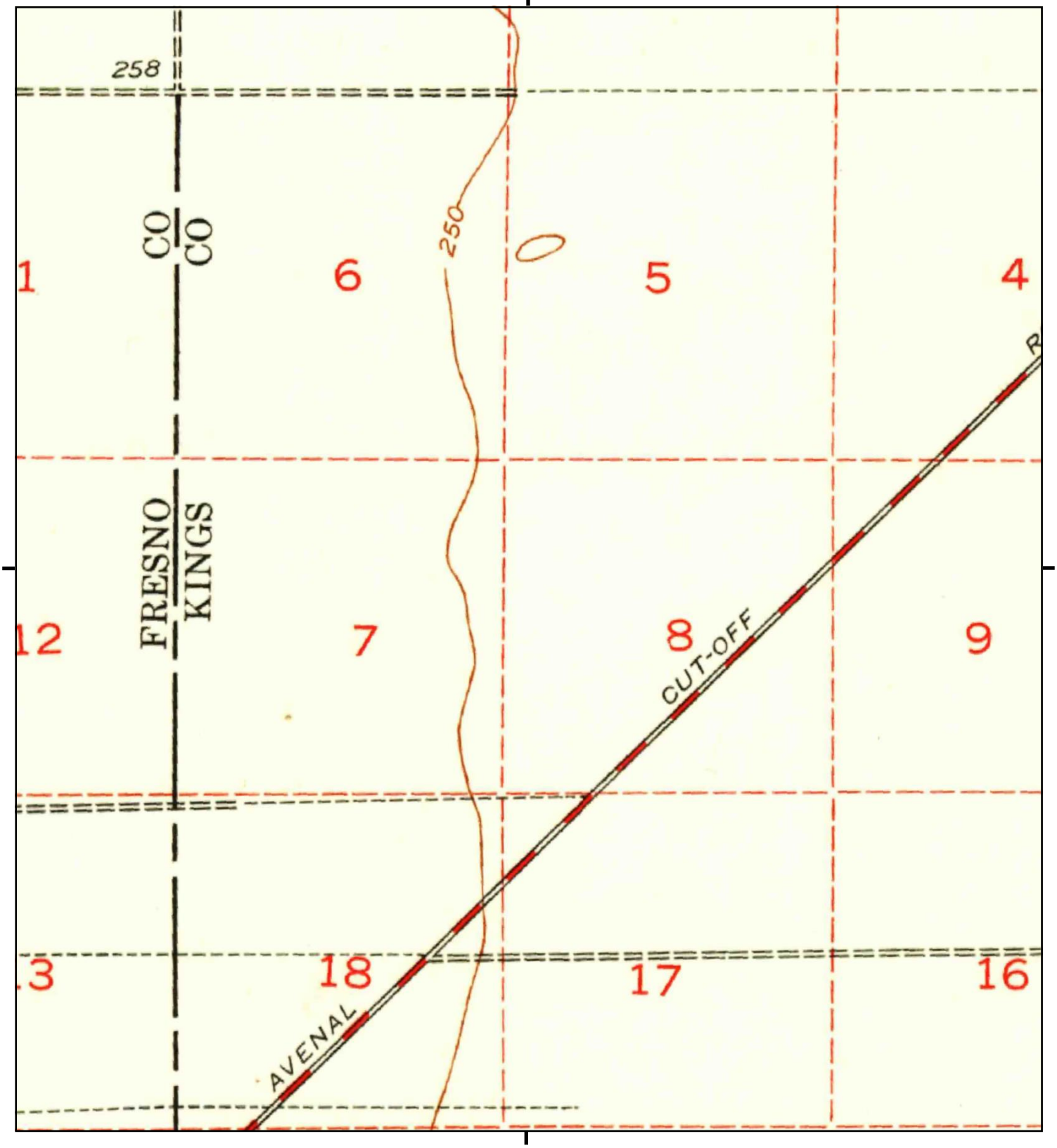


This report includes information from the following map sheet(s).

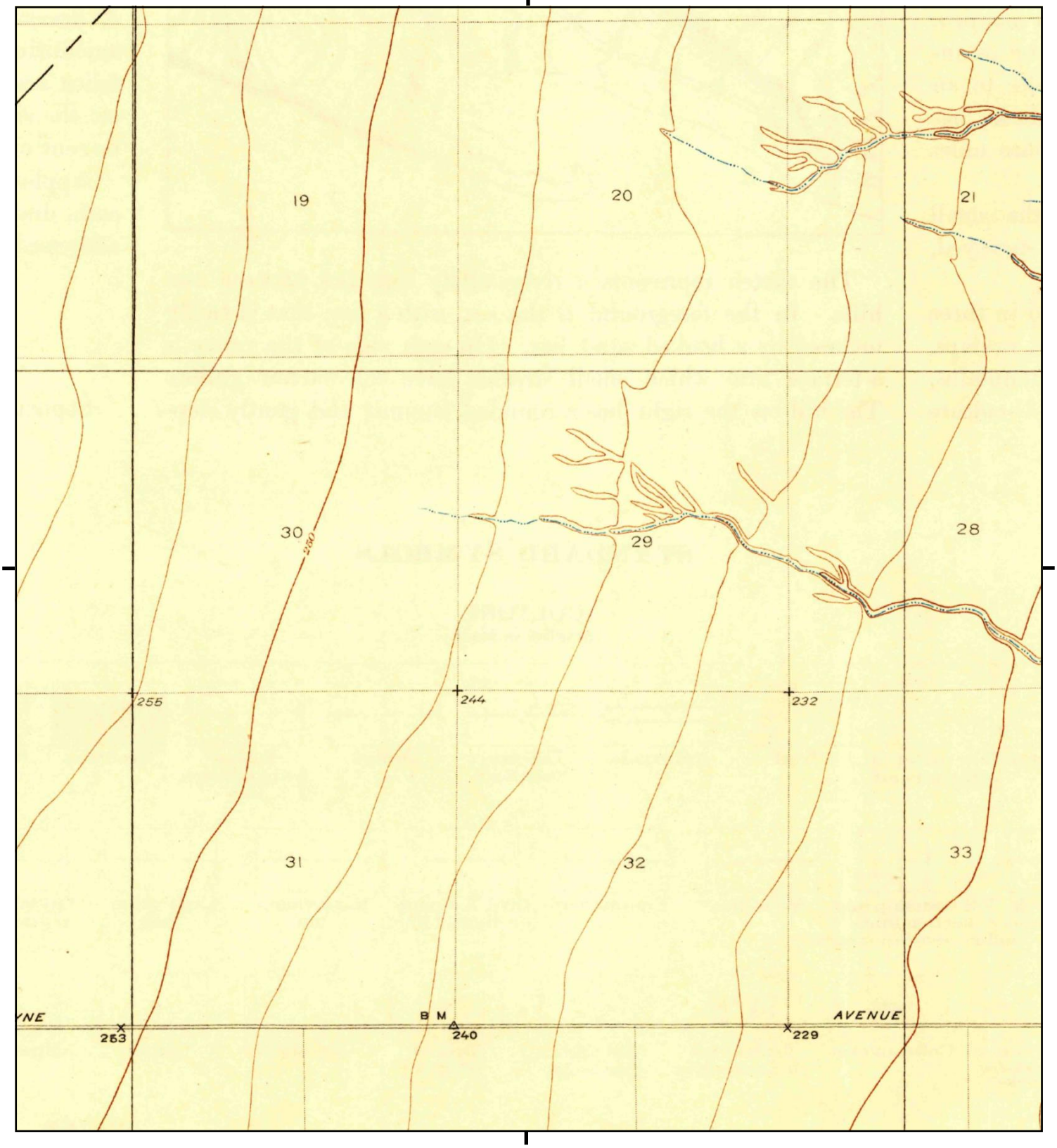
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Stratford, 1940, 15-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

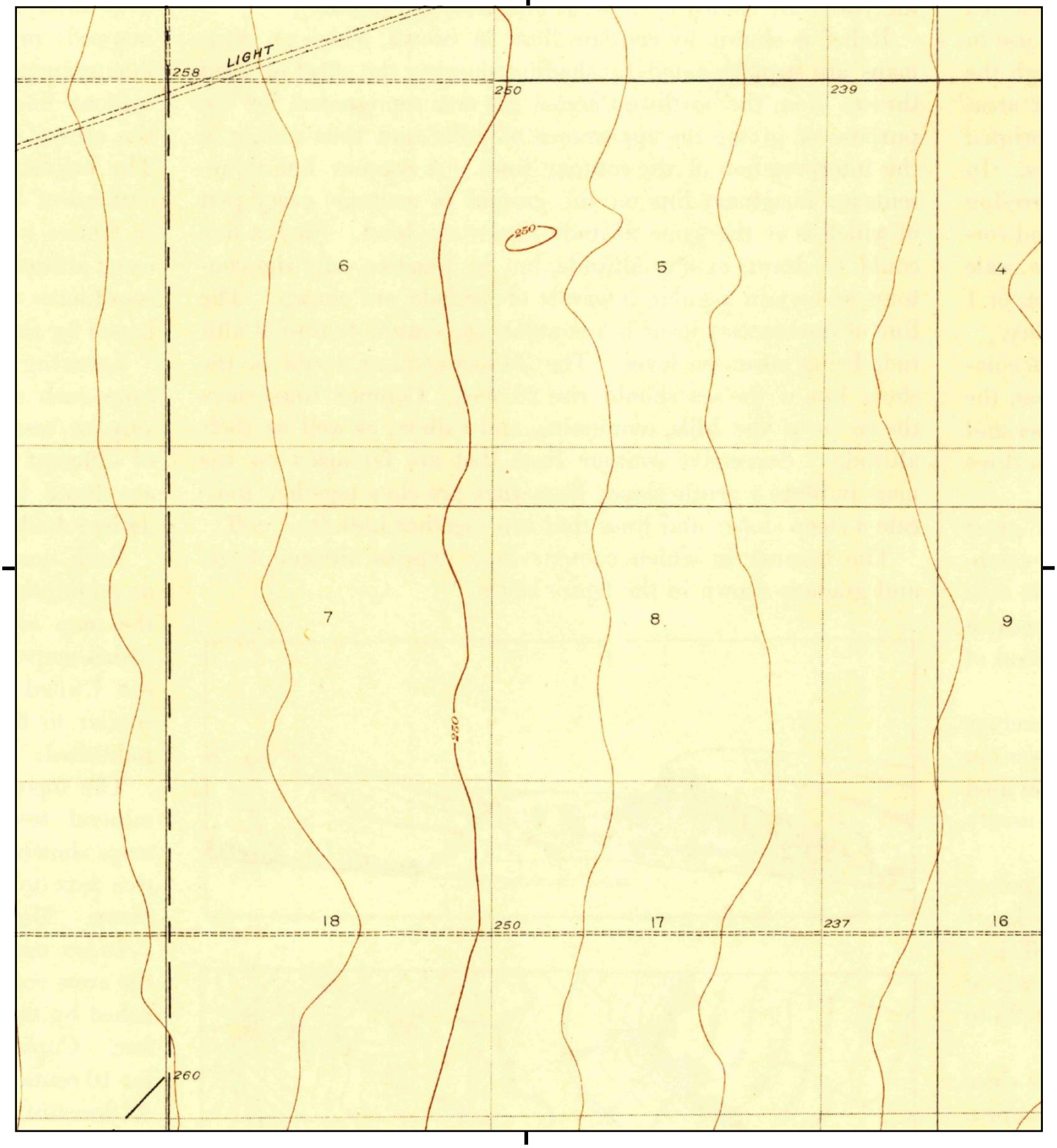
TP, Westhaven, 1929, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N

Historical Topo Map

1929



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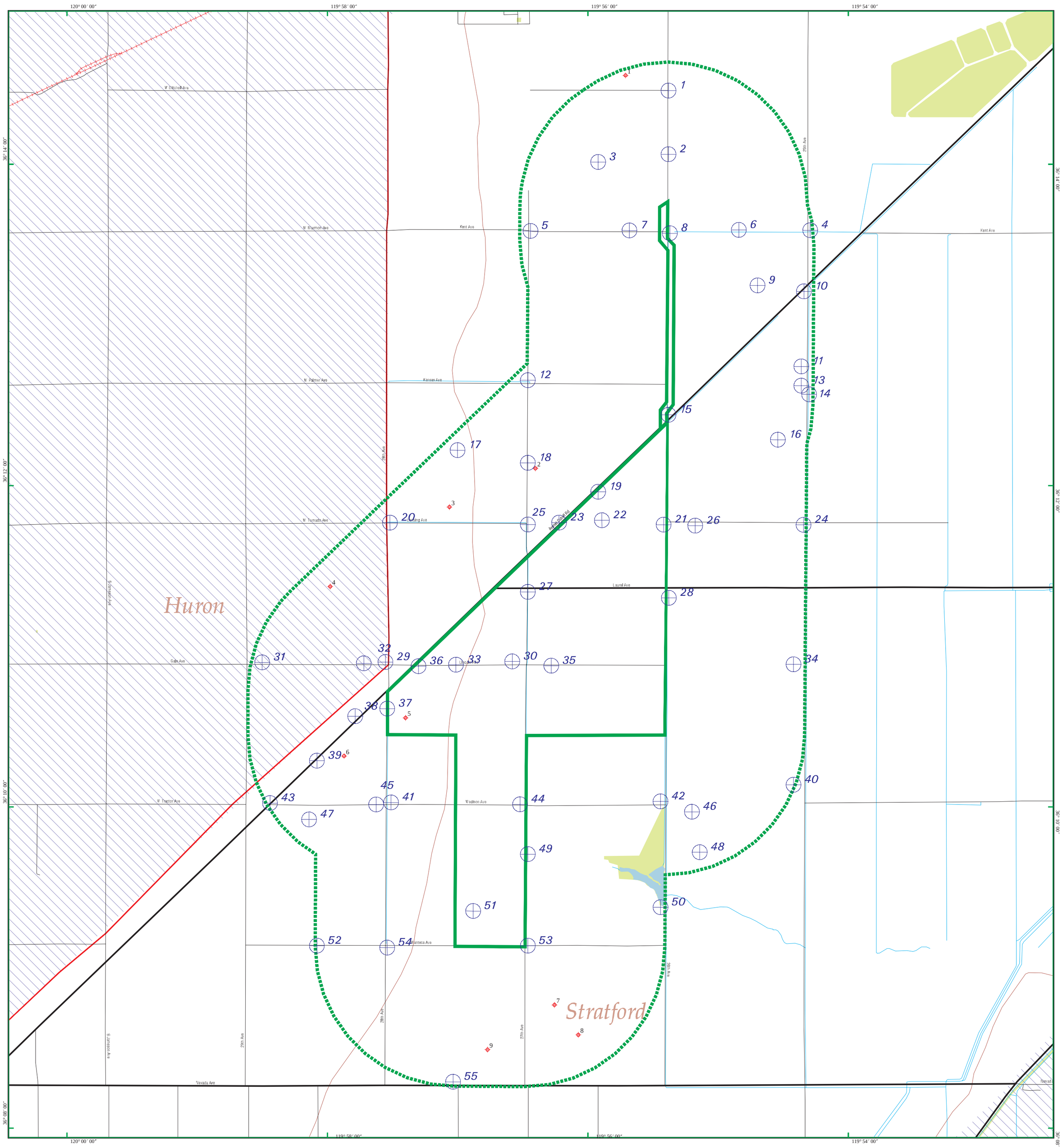
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Westhaven, 1929, 7.5-minute

SITE NAME: Westland Solar Park
ADDRESS: Avenal Cutoff Road & Laurel Ave
Stratford, CA 93266
CLIENT: MooreTwining Associates, Inc.

N



EDR DataMap® - Well Search

Westland Solar Park

Stratford, CA

EDR® Environmental Data Resources Inc

- Listed Water Wells
- Oil & Gas Wells
- Study Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Fault Lines
- Water
- Superfund Sites
- 100-Yr Flood Zones
- Wetlands

N

0 1/2 1

Scale in Miles

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7385289.10w - 11 Jul 23

Westland Solar Park
Stratford, CA 93266

Inquiry Number: 7385289.10w
July 11, 2023

EDR DataMap™ Well Search Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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GEOCHECK VERSION 2.1
SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID	WELL ID
5	USGS40000170965
5	USGS40000170949
8	USGS40000170948
4	USGS40000170947
10	USGS40000170905
20	USGS40000170686
22	USGS40000170685
26	USGS40000170674
24	USGS40000170673
21	USGS40000170670
21	USGS40000170669
28	USGS40000170622
29	USGS40000170585
29	USGS40000170567
33	USGS40000170566
38	USGS40000170536
41	USGS40000170452
42	USGS40000170451
45	USGS40000170443
50	USGS40000170361
55	USGS40000170231
55	USGS40000170232

STATE WATER WELL INFORMATION

MAP ID	WELL ID
1	CADWR9000024493
2	CADWR9000024419
3	CADWR9000024408
4	CAUSGS000002408
4	CAUSGSN00001472
5	CAUSGSN00019170
5	CADWR9000024361
6	CADWR9000024343
7	CADWR9000024336
6	CADWR9000024335
8	CADWR9000024322
4	CADWR9000024328
5	CADWR0000020196
5	CADWR9000024323
5	CAUSGSN00019410
8	CADWR9000024320
9	CADPR0000003773
10	CADWR9000024263
11	CADWR9000024207
12	CADWR9000024145
12	CADWR9000024176
13	CADWR9000024133
14	CADWR9000024114
15	CADWR9000024109
15	CADWR9000024108
15	CADWR9000024100

GEOCHECK VERSION 2.1
SUMMARY

STATE WATER WELL INFORMATION

MAP ID	WELL ID
16	CAEDF0000080601
17	CADWR9000024069
17	CADWR9000024058
18	CADWR9000024041
18	CADWR9000024046
19	CADWR9000024017
20	CADWR9000023981
21	CADWR9000023980
20	CADWR0000013567
20	CAUSGSN00009472
20	CADWR9000023971
20	CADWR9000023970
23	CADWR9000023969
24	CADWR9000023960
20	CADWR9000023959
25	CADWR9000023958
21	CADWR9000023956
20	CADWR9000023950
24	CAUSGSN00002955
21	CADWR9000023943
27	CADWR9000023884
27	CADWR9000023875
28	CADWR9000023868
30	CADWR9000023810
31	CADWR9000023804
31	CADWR9000023803
32	CADWR9000023802
32	CADWR9000023801
29	CADWR9000023795
33	CADWR9000023794
33	CADWR9000023793
34	CADWR9000023791
33	CADWR0000025725
33	CADWR9000023781
35	CADWR9000023792
35	CADWR9000023785
29	CADWR0000010706
29	CAUSGSN00009378
36	CADWR9000023702
35	CADWR9000023784
37	CADWR9000023756
38	CADWR0000020998
38	CAUSGSN00015671
38	CADWR9000023752
39	CADWR9000023687
40	CADWR9000023668
41	CADWR9000023640
41	CADWR0000035774
43	CADWR9000023630
41	CADWR9000023629
44	CADWR9000023639
41	CADWR9000023627
44	CADWR9000023618
45	CAUSGSN00008742

GEOCHECK VERSION 2.1
SUMMARY

STATE WATER WELL INFORMATION

MAP ID	WELL ID
44	CADWR9000023609
46	CADWR9000023603
47	CADWR9000023587
48	CADWR9000023562
48	CADWR0000011715
49	CADWR9000023559
50	CADWR9000023491
50	CADWR0000008746
50	CADWR9000023490
51	CADWR9000023485
51	CADWR0000034144
52	CADWR9000023424
53	CADWR9000023423
54	CADWR9000023417
54	CADWR9000023418
55	CADWR9000023262
55	CADWR0000029889
55	CADWR9000023247

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID
1	CAOG15000009969
2	CAOG15000007457
3	CAOG15000013560
4	CAOG15000013780
5	CAOG15000007463
6	CAOG15000007481
7	CAOG15000001479
8	CAOG15000001623
9	CAOG15000005538

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

USGS TOPOGRAPHIC MAP(S)

36119-B8 WESTHAVEN, CA

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 93245

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.775 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

GEOCHECK VERSION 2.1
SUMMARY

AREA RADON INFORMATION

Federal EPA Radon Zone for FRESNO County: 2

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 FRESNO COUNTY, CA

Number of sites tested: 100

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.251 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.433 pCi/L	100%	0%	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	1.433 pCi/L	100%	0%	0%

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Well Information:

Map ID:	5		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	019S019E31R001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Map ID:	5		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E05D001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium Below E-Clay (Miocene-Pleistocene)		
Aquifer Type:	Not Reported	Construction Date:	19520101
Well Depth:	2005	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1965-12-01
Feet below surface:	315.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	8		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E04D001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	1370
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1959-05-01

Feet below surface:	209.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	4		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E03D001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Map ID:	10		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E04H001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19770630	Well Depth:	2090
Well Depth Units:	ft	Well Hole Depth:	2130
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1977-06-30
Feet below surface:	291	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	20		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E07N001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium Above and Below E-Clay (Miocene-Pleistocene)		
Aquifer Type:	Not Reported	Construction Date:	19480101
Well Depth:	2029	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1968-12-01

Feet below surface:	395.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	22		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E08Q001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19400101	Well Depth:	510
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1950-09-01
Feet below surface:	26.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	26		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E16D001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19660101	Well Depth:	27
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1966-06-01
Feet below surface:	10.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	24		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E16A001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19750826	Well Depth:	20
Well Depth Units:	ft	Well Hole Depth:	20

Well Hole Depth Units: ft

Ground water levels,Number of Measurements: 1 Level reading date: 1975-09-10
Feet below surface: 9.0 Feet to sea level: Not Reported
Note: Not Reported

Map ID: 21
Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 020S019E17A002M Type: Well
Description: Not Reported HUC: 18030012
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported
Aquifer: Central Valley aquifer system
Formation Type: Not Reported Aquifer Type: Not Reported
Construction Date: Not Reported Well Depth: 1174
Well Depth Units: ft Well Hole Depth: Not Reported
Well Hole Depth Units: Not Reported

Ground water levels,Number of Measurements: 1 Level reading date: 1950-09-01
Feet below surface: 121.00 Feet to sea level: Not Reported
Note: Not Reported

Map ID: 21
Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 020S019E17A001M Type: Well
Description: Not Reported HUC: 18030012
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported
Aquifer: Central Valley aquifer system
Formation Type: Not Reported Aquifer Type: Not Reported
Construction Date: 19470101 Well Depth: 1510
Well Depth Units: ft Well Hole Depth: Not Reported
Well Hole Depth Units: Not Reported

Ground water levels,Number of Measurements: 1 Level reading date: 1968-12-01
Feet below surface: 332.00 Feet to sea level: Not Reported
Note: Not Reported

Map ID: 28
Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 020S019E16M001M Type: Well
Description: Not Reported HUC: 18030012
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported

Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	1402
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Map ID:	29		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S018E13R001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	64
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1951-01-01
Feet below surface:	61.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	29		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E19D001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium Above and Below E-Clay (Miocene-Pleistocene)		
Aquifer Type:	Not Reported	Construction Date:	19470101
Well Depth:	2018	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1954-05-01
Feet below surface:	302.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	33		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E19B001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium Below E-Clay (Miocene-Pleistocene)		
Aquifer Type:	Not Reported	Construction Date:	19550101
Well Depth:	2120	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1968-12-01
Feet below surface:	352.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	38		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S018E24G001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium Below E-Clay (Miocene-Pleistocene)		
Aquifer Type:	Not Reported	Construction Date:	19550101
Well Depth:	2130	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Map ID:	41		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E19N001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19490101	Well Depth:	2081
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1965-12-01
Feet below surface:	383.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	42		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E20R001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19660101	Well Depth:	26
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1966-06-01
Feet below surface:	22.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	45		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S018E24R001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	30
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1986-03-25
Feet below surface:	23.55	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	50		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E29J001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19670101	Well Depth:	1211
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Map ID:	55		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E31P001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19620101	Well Depth:	43
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1962-03-01
Feet below surface:	40.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID:	55		
Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	020S019E31P002M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19620101	Well Depth:	686
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-07-01
Feet below surface:	320.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

State Well Information:

Map ID:	1		
State Well #:	19S19E33D001M	Station ID:	25542
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	2		
State Well #:	19S19E33E001M	Station ID:	35469
Well Name:	19S/19E-33E01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	3		
State Well #:	19S19E32K001M	Station ID:	17091
Well Name:	19S/19E-32K01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 4

Map ID:	4		
Well ID:	USGS-361300119540001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361300119540001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361300119540001&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	5		
Well ID:	USGS-361336119562501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361336119562501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361336119562501&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	5		
State Well #:	19S19E32N001M	Station ID:	17092
Well Name:	19S/19E-32N01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1200	Well Completion Rpt #:	Not Reported

Map ID: 6

State Well #: 19S19E33Q002M
Well Name: 19S/19E-33Q02
Well Use: Irrigation
Well Depth: 1380
Station ID: 47455
Basin Name: Westside
Well Type: Single Well
Well Completion Rpt #: E0080889

Map ID: 7
State Well #: 19S19E32R001M
Well Name: Not Reported
Well Use: Not Reported
Well Depth: 0
Station ID: 25541
Basin Name: Westside
Well Type: Unknown
Well Completion Rpt #: Not Reported

Map ID: 6
State Well #: 19S19E33Q001M
Well Name: Not Reported
Well Use: Unknown
Well Depth: 0
Station ID: 17093
Basin Name: Westside
Well Type: Unknown
Well Completion Rpt #: Not Reported

Map ID: 8
State Well #: 20S19E04D001M
Well Name: 20S/19E-04D01
Well Use: Irrigation
Well Depth: 1370
Station ID: 20783
Basin Name: Westside
Well Type: Single Well
Well Completion Rpt #: Not Reported

Map ID: 4
State Well #: 20S19E03D001M
Well Name: Not Reported
Well Use: Not Reported
Well Depth: 0
Station ID: 25546
Basin Name: Westside
Well Type: Unknown
Well Completion Rpt #: Not Reported

Map ID: 5
Well ID: 20S19E05D001M
Source: Department of Water Resources
Other Name: 20S19E05D001M
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E05D001M&store_num=
GeoTracker Data: Not Reported
Well Type: UNK
GAMA PFAS Testing: Not Reported

Map ID: 5
State Well #: 20S19E05D001M
Well Name: Not Reported
Well Use: Unknown
Well Depth: 0
Station ID: 20786
Basin Name: Westside
Well Type: Unknown
Well Completion Rpt #: Not Reported

Map ID: 5

Well ID:	USGS-361334119562301	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361334119562301	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361334119562301&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	8		
State Well #:	20S19E04D003M	Station ID:	50337
Well Name:	20S/19E-04D03	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	795	Well Completion Rpt #:	E0226842

Map ID:	9		
Well ID:	88542	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	88542	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=88542&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	10		
State Well #:	20S19E04H001M	Station ID:	20784
Well Name:	20S/19E-04H01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	2130	Well Completion Rpt #:	101780

Map ID:	11		
State Well #:	20S19E04R001M	Station ID:	20785
Well Name:	20S/19E-04R01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	2090	Well Completion Rpt #:	101781

Map ID:	12		
State Well #:	20S19E05N002M	Station ID:	20787
Well Name:	20S/19E-05N02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	12		
State Well #:	20S19E05N003M	Station ID:	24724
Well Name:	20S/19E-05N03	Basin Name:	Westside
Well Use:	Observation	Well Type:	Single Well
Well Depth:	20	Well Completion Rpt #:	Not Reported

Map ID: 13

State Well #:	20S19E09A001M	Station ID:	20793
Well Name:	20S/19E-09A01	Basin Name:	Westside
Well Use:	Observation	Well Type:	Single Well
Well Depth:	30	Well Completion Rpt #:	Not Reported

Map ID:	14		
State Well #:	20S19E09A002M	Station ID:	24726
Well Name:	20S/19E-09A02	Basin Name:	Westside
Well Use:	Observation	Well Type:	Single Well
Well Depth:	20	Well Completion Rpt #:	Not Reported

Map ID:	15		
State Well #:	20S19E09D002M	Station ID:	47533
Well Name:	20S/19E-09D02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	670	Well Completion Rpt #:	0944117

Map ID:	15		
State Well #:	20S19E09D003M	Station ID:	47534
Well Name:	20S/19E-09D03	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1525	Well Completion Rpt #:	0944114

Map ID:	15		
State Well #:	20S19E09D001M	Station ID:	24727
Well Name:	20S/19E-09D01	Basin Name:	Westside
Well Use:	Observation	Well Type:	Single Well
Well Depth:	20	Well Completion Rpt #:	Not Reported

Map ID:	16		
Well ID:	T0610700402-MW-2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0610700402&assigned_name=MW-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0610700402&assigned_name=MW-2		

Map ID:	17		
State Well #:	20S19E07G002M	Station ID:	47532
Well Name:	20S/19E-07G02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	690	Well Completion Rpt #:	715119

Map ID: 17

State Well #:	20S19E07G001M	Station ID:	36288
Well Name:	20S/19E-07G01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	18		
State Well #:	20S19E08M002M	Station ID:	52575
Well Name:	20S/19E-08M02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	18		
State Well #:	20S19E08M001M	Station ID:	36289
Well Name:	20S/19E-08M01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1700	Well Completion Rpt #:	Not Reported

Map ID:	19		
State Well #:	20S19E08P001M	Station ID:	51302
Well Name:	20S/19E-08P01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1690	Well Completion Rpt #:	E0330257

Map ID:	20		
State Well #:	20S19E07N001M	Station ID:	20791
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	21		
State Well #:	20S19E09N002M	Station ID:	50818
Well Name:	20S/19E-09N02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	20		
Well ID:	20S19E07N001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E07N001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E07N001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID: 20

Well ID:	USGS-361147119572701	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361147119572701	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361147119572701&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	20		
State Well #:	20S19E18D001M	Station ID:	35264
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	20		
State Well #:	20S19E07N003M	Station ID:	20792
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	23		
State Well #:	20S19E17C001M	Station ID:	38472
Well Name:	1571	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	24		
State Well #:	20S19E16A001M	Station ID:	25548
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	20		
State Well #:	20S19E18D002M	Station ID:	47536
Well Name:	20S/19E-18D02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1000	Well Completion Rpt #:	Not Reported

Map ID:	25		
State Well #:	20S19E17D002M	Station ID:	38392
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 21

State Well #:	20S19E17A001M	Station ID:	35263
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	20		
State Well #:	20S19E18D004M	Station ID:	53061
Well Name:	20S/19E-18D04	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	24		
Well ID:	USGS-361145119541601	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361145119541601	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361145119541601&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	21		
State Well #:	20S19E17A002M	Station ID:	18067
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	27		
State Well #:	20S19E17M001M	Station ID:	18068
Well Name:	20S/19E-17M01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1000	Well Completion Rpt #:	Not Reported

Map ID:	27		
State Well #:	20S19E17M002M	Station ID:	50379
Well Name:	20S/19E-17M02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	28		
State Well #:	20S19E16M001M	Station ID:	18066
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 30

State Well #:	20S19E18R001M	Station ID:	18069
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	31		
State Well #:	20S18E34N003M	Station ID:	38388
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	31		
State Well #:	20S18E13N001M	Station ID:	38387
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	32		
State Well #:	20S18E34R001M	Station ID:	39720
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	32		
State Well #:	20S18E13R002M	Station ID:	25543
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	29		
State Well #:	20S19E19D001M	Station ID:	35357
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	33		
State Well #:	20S19E19B002M	Station ID:	18070
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	33

State Well #:	20S19E19B001M	Station ID:	35265
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	34		
State Well #:	20S19E21A001M	Station ID:	35359
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	33		
Well ID:	20S19E19B001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E19B001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E19B001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	33		
State Well #:	20S19E19C001M	Station ID:	18071
Well Name:	20S/19E-19C01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	35		
State Well #:	20S19E20D001M	Station ID:	18074
Well Name:	20S/19E-20D01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	925	Well Completion Rpt #:	Not Reported

Map ID:	35		
State Well #:	20S19E20D003M	Station ID:	50440
Well Name:	20S/19E-20D03	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	29		
Well ID:	20S19E19D001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E19D001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E19D001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	29

Well ID:	USGS-361053119572801	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361053119572801	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361053119572801&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	36		
State Well #:	20S19E19D003M	Station ID:	18072
Well Name:	20S/19E-19D03	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1600	Well Completion Rpt #:	275499

Map ID:	35		
State Well #:	20S19E20D002M	Station ID:	50078
Well Name:	20S/19E-20D02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	1420	Well Completion Rpt #:	E0195799

Map ID:	37		
State Well #:	20S18E24H001M	Station ID:	50075
Well Name:	20S/18E-24H01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	38		
Well ID:	20S18E24G001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S18E24G001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S18E24G001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	38		
Well ID:	USGS-361034119574401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361034119574401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361034119574401&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	38		
State Well #:	20S18E24G001M	Station ID:	36002
Well Name:	20S/18E-24G01	Basin Name:	Westside

Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	2130	Well Completion Rpt #:	Not Reported

Map ID:	39		
State Well #:	20S18E24K001M	Station ID:	50586
Well Name:	20S/18E-24K01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	40		
State Well #:	26S18E16H001M	Station ID:	20835
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	41		
State Well #:	20S19E19N001M	Station ID:	35358
Well Name:	20S/19E-19N01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	2081	Well Completion Rpt #:	Not Reported

Map ID:	41		
Well ID:	20S19E19N001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E19N001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E19N001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	43		
State Well #:	20S18E24N001M	Station ID:	49469
Well Name:	20S/18E-24N01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	41		
State Well #:	20S19E30D001M	Station ID:	24730
Well Name:	1335	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	44

State Well #:	20S19E19R001M	Station ID:	18073
Well Name:	20S/19E-19R01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 41

State Well #:	20S19E19N002M	Station ID:	49269
Well Name:	20S/19E-19N02	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 44

State Well #:	20S19E29D001M	Station ID:	25552
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 45

Well ID:	USGS-361001119573401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-361001119573401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-361001119573401&store_num=		
GeoTracker Data:	Not Reported		

Map ID: 44

State Well #:	20S19E30A001M	Station ID:	49472
Well Name:	20S/19E-30A01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 46

State Well #:	26S18E16E001M	Station ID:	36312
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 47

State Well #:	26S17E13L002M	Station ID:	20830
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 48

State Well #:	26S18E16M001M	Station ID:	36313
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 48

Well ID:	26S18E16M001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	26S18E16M001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=26S18E16M001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID: 49

State Well #:	20S19E29E001M	Station ID:	50254
Well Name:	20S/19E-29E01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 50

State Well #:	20S19E29J001M	Station ID:	18081
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 50

Well ID:	20S19E29J001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E29J001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E29J001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID: 50

State Well #:	20S19E29J002M	Station ID:	24729
Well Name:	1334	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 51

State Well #:	26S18E19B002M	Station ID:	20837
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID: 51

Well ID:	26S18E19B002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	26S18E19B002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=26S18E19B002M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	52		
State Well #:	20S18E36C003M	Station ID:	49800
Well Name:	20S/18E-36C03	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	53		
State Well #:	20S19E32D001M	Station ID:	35366
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	54		
State Well #:	20S19E31D001M	Station ID:	49801
Well Name:	20S/19E-31D01	Basin Name:	Westside
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	2250	Well Completion Rpt #:	E0208756

Map ID:	54		
State Well #:	20S19E30N003M	Station ID:	24731
Well Name:	1601	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	55		
State Well #:	20S19E31P002M	Station ID:	18082
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	55		
Well ID:	20S19E31P002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	20S19E31P002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=20S19E31P002M&store_num=		
GeoTracker Data:	Not Reported		

Map ID:	55

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

State Well #:	20S19E31Q001M	Station ID:	25553
Well Name:	Not Reported	Basin Name:	Westside
Well Use:	Not Reported	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

Map ID:	1		
API #:	0403120035	Well #:	1-29
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	Willett 1-29	Lease Name:	Willett
Operator ID:	S3100	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	06/20/1968

Map ID:	2		
API #:	0403120312	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	Westhaven Farming 1	Lease Name:	Westhaven Farming
Operator ID:	S7200	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	08/13/1986

Map ID:	3		
API #:	0403100605	Well #:	48-7
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	B.L.C. 48-7	Lease Name:	B.L.C.
Operator ID:	M6900	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	06/09/1951

Map ID:	4		
API #:	0401920894	Well #:	54
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	Bass-Westhaven 54	Lease Name:	Bass-Westhaven
Operator ID:	A4500	Field Name:	Any Field
Area Name:	Any Area	Place:	Fresno County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	07/26/1975

Map ID:	5		
API #:	0403120278	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	Westhaven 1	Lease Name:	Westhaven
Operator ID:	A1905	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County

GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	05/23/1984

Map ID:	6		
API #:	0403100603	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	Boston Ranch (NCT-2) 1	Lease Name:	Boston Ranch (NCT-2)
Operator ID:	C5640	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	02/21/1957

Map ID:	7		
API #:	0403120428	Well #:	1
Well Status:	Idle	Well Type:	Oil & Gas
Well Design:	Eagle North 1	Lease Name:	Eagle North
Operator ID:	V1250	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	01/11/2006

Map ID:	8		
API #:	0403120311	Well #:	1
Well Status:	Idle	Well Type:	Oil & Gas
Well Design:	Mary Bellocchi 1	Lease Name:	Mary Bellocchi
Operator ID:	V1250	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	11/30/1985

Map ID:	9		
API #:	0403100604	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Well Design:	B.L.C. 1	Lease Name:	B.L.C.
Operator ID:	C7800	Field Name:	Any Field
Area Name:	Any Area	Place:	Kings County
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	Spud Date:	12/29/1953

CALIFORNIA GOVERNMENT WELL RECORDS SEARCHED

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.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias 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 Heath 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.

STREET AND ADDRESS INFORMATION

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APPENDIX E

DOCUMENTS PROVIDED BY CLIENT

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	Avenal Cutoff Road @ Laurel Ave
Current Site Use	Agricultural
Current Site Zoning	Agricultural
Current Assessor's Parcel Number	Solar Site: 026-010-026; 026-300-031, -032, -033, -043, -044; 026-320-02, -03.
Addresses Formerly Assigned to Site (if any)	unknown

SITE OWNERSHIP AND PAST USE		
OWNER NAME, ADDRESS & PHONE #	PERIOD OF OWNERSHIP/USE	TYPE OF USE
Shannon Trust P.O. Box 1596, Hanford CA 93230	unknown	Agriculture
Esajian Land Company P.O. Box 108, Lemoore CA 93245	unknown	Agriculture
Esajian Farming · same address as above	unknown	Agriculture

ADJACENT PROPERTY USE		
DIRECTION	TYPE OF USE	LENGTH OF USE
North	Agriculture	~ 50 yrs
East	Solar	~ 2 yrs
South	Agriculture	~ 50 yrs
West	Agriculture	~ 50 yrs

PRIOR FACILITY MANAGER'S NAME	
Contact Person	Unknown
Address	
Telephone	

EXISTING SITE STRUCTURES			
STRUCTURE DESCRIPTION	LOCATION	USE	DATE OF CONSTRUCTION
Wells	Various	Water	Unknown

FORMER SITE STRUCTURES			
STRUCTURE DESCRIPTION	FORMER LOCATION	USE	DATE OF DEMOLITION
Unknown			

SITE LESSEES		
NAME, ADDRESS & PHONE #	LENGTH/YEARS OF LEASE	TYPE OF USE
PRESENT: Unknown		
FORMER:		
FORMER:		

SITE UTILITIES	
UTILITY	**PROVIDER**
Electricity	PGE
Natural Gas	So Cal Gas
Drinking Water	N/A
Storm water Drainage	N/A
Solid Waste Disposal	N/A
Sanitary Sewer	N/A
Emergency Power Source	unknown

************* 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 aboveground storage tanks?			✓
8B	Do you know of any current or former underground 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.

No Knowledge.

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.

No Knowledge.

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 Knowledge.

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 Knowledge.

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 Knowledge.

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?

No Knowledge

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 Knowledge

PLEASE PROVIDE DETAILED INFORMATION FOR YES ANSWERS TO QUESTIONS (1A-15A), (1B-13B), (1C-10C)

ADDITIONALLY, PLEASE PROVIDE AN EXPLANATION WHY YOU ARE UNABLE TO PROVIDE (1D-13D) IF THEY EXIST

1D - Current CUP Site Plan attached.

14D. Gary Esajian (Esajian Land + Farming Only)
559.945.7850
gary@westhavenag.com

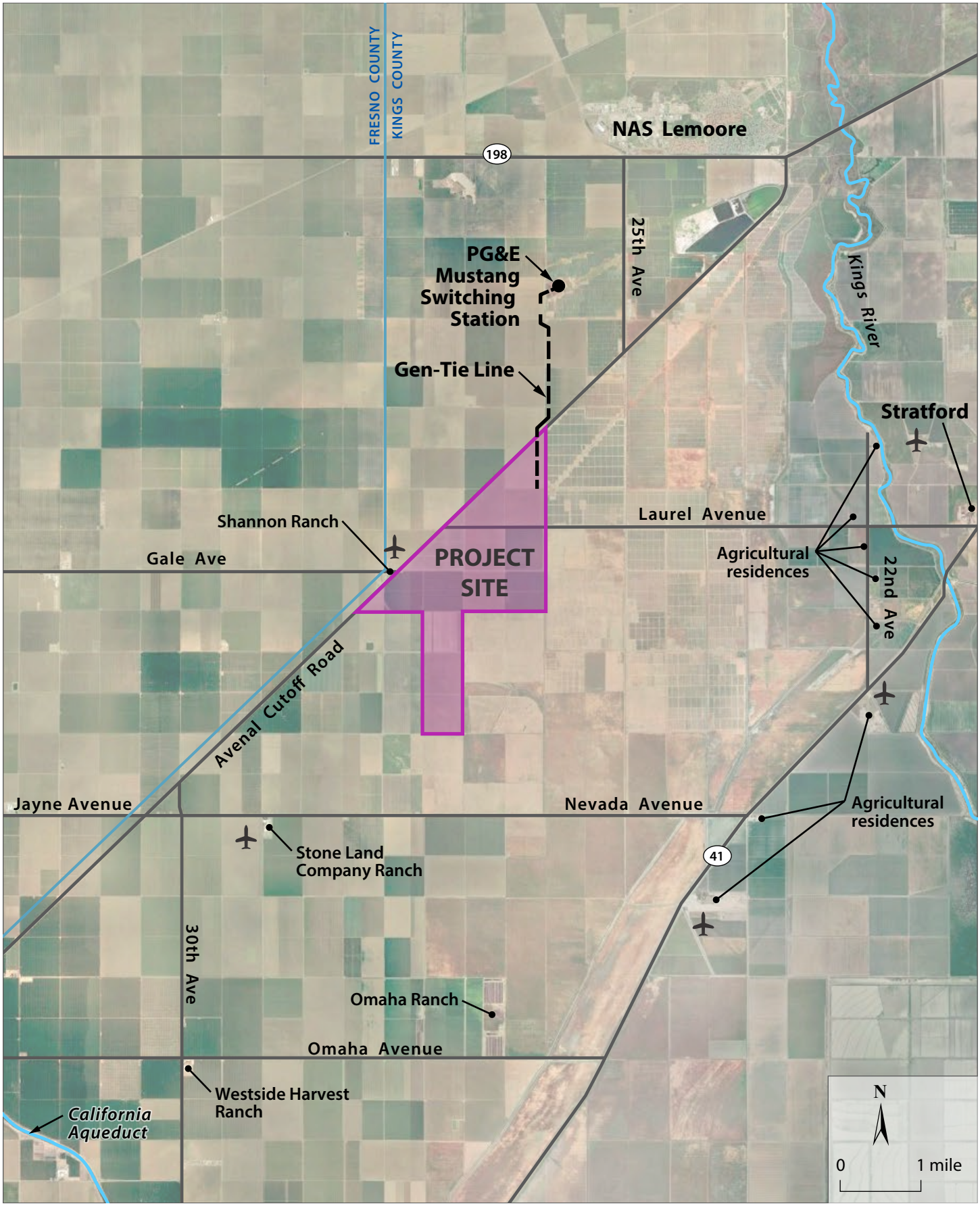
THIS ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT WAS PREPARED BY:

NAME Bert Verrips
TITLE Principal
FIRM Bert Verrips, AICP, Consulting Services
RELATIONSHIP TO SITE Consultant
ADDRESS 11942 Red Hill Ave
Santa Ana, CA 92705
TELEPHONE 714/838-0192 **NUMBER**
DATE 7/10/23

PREPARER REPRESENTS THAT TO THE BEST OF THE PREPARER'S KNOWLEDGE THE ABOVE STATEMENTS AND FACTS ARE TRUE AND CORRECT AND THAT TO THE BEST OF THE PREPARER'S KNOWLEDGE NO MATERIAL FACTS HAVE BEEN SUPPRESSED OR MISSTATED UNDER PENALTY OF PURGERY BY LAW.

Signed

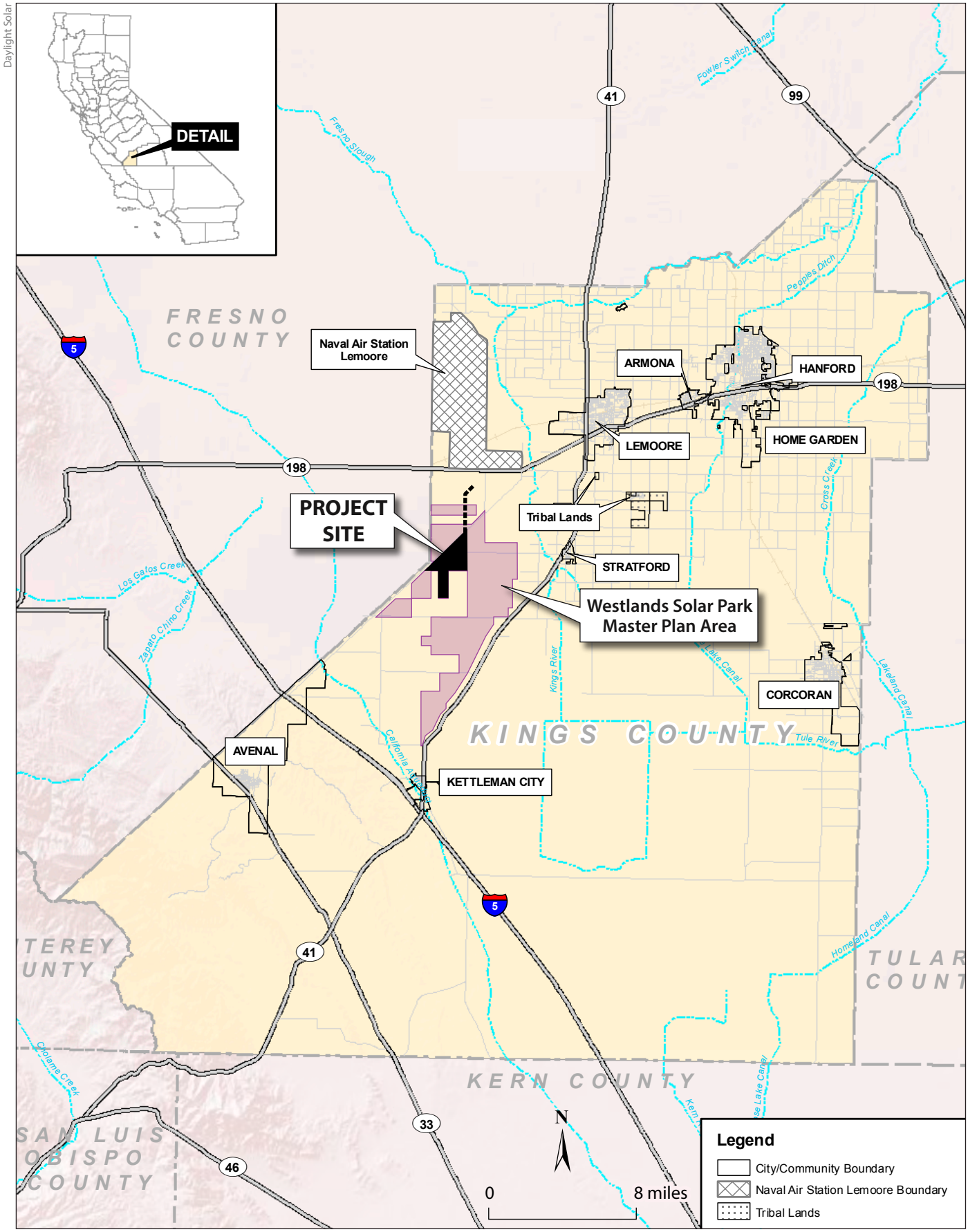
7/10/23
Date



Source: Google Earth, 2023

Project Vicinity

Figure PD-2



Source: Kings County Community Development Agency

Regional Location

Figure 1

APPENDIX D-2

Phase II Environmental Site Assessment

Prepared by

Moore Twining Associates

December 2023

MOORE TWINING ASSOCIATES, INC.

December 6, 2023 C64411.07

Mr. Bert Verrips, AICP
Environmental Consulting Services
11942 Red Hill Avenue
Santa Ana, California 92705

RE: Phase II Environmental Site Assessment
Daylight Solar – Avenal Cutoff Road and Laurel Avenue - Stratford, California

Dear Mr. Verrips,

This report presents the results and findings of a Phase II Environmental Site Assessment (Phase II ESA) conducted to assess shallow soil and groundwater for approximately 2,107 acres of agricultural and undeveloped land located at the intersection of Avenal Cutoff Road and Laurel Avenue, in the city of Stratford, California (Subject Property). It is Moore Twining Associates, Inc.'s (Moore Twining's) understanding that this investigation was requested by Mr. Bert Verrips, AICP as part of their due diligence for the Subject Property.

SUBJECT PROPERTY INFORMATION AND ENVIRONMENTAL BACKGROUND

The Subject Property comprises fourteen (14) parcels totaling approximately 2,116 acres of agricultural and undeveloped land located at the intersection of Avenal Cutoff Road and Laurel Avenue, in the city of Stratford, California. The Subject Property has been assigned the following Kings County Assessor's Parcel Numbers (APNs): 026-010-028-000, 026-300-031-000, 026-300-032-000, 026-300-043-000, 026-300-044-000, 026-300-033-000, 026-320-002-000, 026-320-003-000, 026-010-027-000, 026-010-035-000, 026-010-043-000, 026-010-009-000, and 024-260-033-000.

In a Phase I ESA prepared by Moore Twining dated August 28, 2023, the following conclusions were presented:

On behalf of Environmental Consulting Services, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-21 for a Daylight Legacy Solar Project located at Avenal Cutoff Road and Laurel Avenue in Stratford, California. This assessment has revealed the following:

Recognized Environmental Conditions

No RECS have been identified during the course of this assessment.

Controlled Recognized Environmental Condition

No CRECs have been identified during the course of this assessment.

Historical Recognized Environmental Condition

No HRECs have been identified during the course of this assessment.

Proposed Additional Investigations

The legal application of agricultural chemicals is not considered a REC by the Comprehensive Environmental Response, Compensation and Liability (CERCLA) act of 1980. The exemption is noted in (4) Application of Pesticides—Section 107(i) of the ASTM E1527-21 standard. However, a clause is noted in the exemption stating, "The pesticide exemption also contains a "savings clause" that provides that the cost recovery prohibition does not alter or modify any obligations or liability under any other federal or state law for damages, injury or loss resulting from a release of hazardous substances, or for the costs of removal or remedial actions of such hazardous substances." It has been Moore Twining's experience that pesticides are persistent and can exist in soils long-term after use of agricultural chemicals. From the historical documents researched, no information was discovered that would indicate illegal agricultural activities occurred at the Subject Property. As the Subject Property has been used since the 1950's for agricultural purposes, the potential exists that persistent pesticides and other related agricultural chemicals may be present in the soils at the Subject Property. These constituents, even in low concentrations, can result in federal, state and local requirements for excavation, movement, disposal, assessment, and remediation. If present, costs could be incurred to address these conditions.

In addition to the pesticides, one of the fertigation systems utilizes sulfuric acid and chlorine. It is unknown how long these chemicals have been used on the Subject Property, but the potential exists for the chemicals to have been released to the subsurface during filling activities or leaks to have occurred around openings/connections to the fertigation system. The presence of sulfuric acid or chlorine could result in increased disposal fees and increased costs for remediations depending upon the concentrations of sulfuric acid and/or chlorine in soils at the Subject Property.

According to a review of historical aerial photographs and topographic maps, Avenal Cutoff Road has bordered the western edge of the Subject Property since at least the 1940s. There is a risk that soil along either side of the road has been contaminated by aerially deposited lead (ADL) generated by automobile traffic. The presence of lead in the soil could result in increased disposal fees, and costs for assessment and remediation depending on the concentration of lead in soils at the Subject Property.

A small airstrip was identified in the EDR report, and can be observed on an adjacent property to the west, since the 1950s. The listing in the EDR report indicated that 30 gallons or more worth of empty pesticide containers were observed during a 'site screening'. The facility was given a 'low priority preliminary assessment' recommendation, and referred to another agency. No additional information was available. Due to the close proximity to the Subject Property, the potential exists for contamination to have impacted the subsurface of the Subject Property.

PURPOSE OF INVESTIGATION

The purpose of this investigation was to assess if persistent potential contaminants of concern (PCOCs) are present in shallow onsite soil and/or groundwater in the areas of concern identified in the Phase I.

SCOPE OF WORK

The scope of this Phase II ESA included the following:

- The collection of fourteen near surface four-part composite samples in the area of the agricultural fields for analysis of organochlorine pesticides (OCPs) and arsenic;
- The collection of two surface soil samples on the Subject Property that borders Avenal Cutoff Road for analysis of total lead;
- The collection of soil samples near the sulfuric acid and chlorine ASTs on the Subject Property (part of the fertigation system) for analysis of acidy (pH), electric conductivity (EC) and chloride;
- The collection of one grab groundwater sample near the Subject Property boundary that borders the former air strip for analysis of OCPs and arsenic; and
- This report was prepared to present our procedures, findings, conclusions, and recommendations.

INVESTIGATIVE PROCEDURES

To assess near surface soil in the area of the agricultural fields, Moore Twining collected fourteen (14) four-part composite surface (0-0.5 feet) soil samples from fifty-six (56) locations for laboratory analysis of OCPs and arsenic. The field composited soil samples were identified as CS-1 through CS-14 and are depicted on Drawing 1. For each composite sample, an MTA field geologist collected equal volumes of soil at four locations and combined the samples into one utilizing a shovel and plastic bags. The composited soil samples were then collected by using stainless-steel soil sample sleeves. The samples were preserved in the field by capping both ends of the sleeves with Teflon tape and plastic caps and placing the sleeves in a chilled ice chest. Soil samples were submitted to Moore Twining's California State-certified analytical laboratory under chain-of-custody protocol for analysis. The soil samples were analyzed in the laboratory for OCPs and arsenic.

Two (2) surficial samples (identified as Lead 1 and Lead 2) were collected along Avenal Cutoff Road as depicted on Drawing 1. These samples were also preserved in the field by capping both ends with Teflon tape and plastic caps and placing them in a properly-chilled ice chest. These samples were analyzed in the laboratory for total lead.

To assess the potential concerns associated with the sulfuric acid and chlorine ASTs on the Subject Property (part of the fertigation system), one (1) soil sample was collected in the vicinity of each AST. These samples were identified as T1 and T2 as depicted on Drawing 2. The soil sample (T1) collected in the vicinity of the sulfuric acid AST was analyzed for acidy (pH) and EC. The soil sample collected in the vicinity of the chlorine AST was analyzed for pH, EC and chloride.

Due to the presence of the off-Subject Property air strip, one (1) soil boring identified as B1 was drilled near the property boundary that borders the former offsite air strip as depicted on Drawing 3. The soil boring was drilled to a depth of 35 feet below site grade (bsg) by utilizing Moore Twining's truck-mounted CME 75 drill rig equipped with 6-inch diameter hollow stem augers. Moore Twining is a C-57 licensed water well drilling contractor (C-57 Contractor's License No. 506159). All drilling activities were performed under the direction of a California registered professional geologist. Groundwater was encountered at a depth of approximately 30 feet bsg during drilling activities. Upon completion of the

soil boring, the hollow stem auger was removed to a depth of 25 feet to expose the shallow groundwater at the bottom of the boring which measured at a static depth of approximately 30 feet below site grade. A grab groundwater sample was collected from the boring utilizing a new disposable bailer and twine. Once a groundwater sample was collected, the boring was backfilled with a neat cement to the surface.

RESULTS AND FINDINGS

Soil sample analytical results are summarized in Tables 1 through 3 (attached). Tables 1 and 2 include Regional Screening Levels (RSLs) modified for California to assess human health risk. Also included in Table 2 are soil waste classification concentrations for arsenic and lead used for California regulated waste per California Code of Regulations, Title 22, Chapter 11, Article 3. A copy of the laboratory report for the soil samples is included in Attachment A.

4,4 DDE was detected in composite soil samples collected form the agricultural fields ranging from 0.010 mg/kg and 0.14 mg/kg. These concentrations are below both the residential and commercial RSLs values of 2.0 mg/kg and 9.3 mg/kg, respectively. 4,4 DDT was detected in composite soil samples CS-3 and CS-11 at a concentration of 0.014 mg/kg. This concentration is below both the residential and commercial RSL values of 1.9 mg/kg and 7.1 mg/kg, respectively. Trifluralin was detected in composite soil samples ranging from 0.0083 mg/kg to 0.046 mg/kg. These concentrations are below both the residential and commercial RSL values of 81 mg/kg and 380 mg/kg, respectively. No arsenic concentrations were detected from the composite soil samples collected from the agricultural fields.

Lead was detected in surface soil samples collected near the border of Avenal Cutoff Road ranging from 4.6 mg/kg to 5.2 mg/kg. These concentrations are below both the residential and commercial RSL values of 80 mg/kg and 500 mg/kg, respectively.

Concentrations of pH were reported in soil samples ranging from 7.6 to 8.0. Chloride was reported at concentrations ranging from 220 mg/kg to 750 mg/kg. Concentrations of EC were reported in soil samples ranging from 660 µS/cm to 2,600 µS/cm. The pH and chloride concentrations detected from the soil samples collected near the onsite ASTs appear to be similar to the background soil sample collected at boring B1. The EC concentrations detected at soil sample T2 (2,600 µS/cm) appear to be slightly elevated above the background sample collected at B1 (750 µS/cm), however this concentration is considered to not be a concern for the anticipated industrial use of the property.

The grab groundwater sample collected from boring B1 did not have any detectable OCPs. Arsenic was detected in the groundwater sample at 1.5 micrograms per liter (µg/L) which is below the MCL of 10 µg/L.

CONCLUSIONS

No detectable concentrations of constituents of concern analyzed were reported above published screening levels or hazardous waste screening criteria. Additional environmental assessment for the areas investigated are not recommended at this time.

LIMITATIONS

The scope of the investigation was intended to be an interactive process. The purpose of an environmental assessment is to reasonably characterize existing site conditions based on the available data. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic.

Conditions of interest may exist at the site that cannot be identified by visual observations and the scope of the work performed as part of this Phase II ESA. Where subsurface exploratory work was performed, our professional opinions were based in part on interpretation of data from discrete sampling locations that may not represent actual conditions or un-sampled locations. If conditions of interest were not identified during performance of the work, such a finding should not be construed as a guarantee that such conditions do not exist at the site.

This work was conducted in accordance with generally accepted engineering principles and practices in at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied. This report was prepared for the sole use of the client and appropriate regulatory agencies. Any reliance on this report by a third party is at such party's sole risk.

CLOSING

If you have questions, please contact our office. Our environmental services staff can answer your inquiries regarding this report at (800) 268-7021.

Sincerely,
MOORE TWINING ASSOCIATES, INC.
Environmental Services Division

Keith Mayes, PG 7555
Environmental Division Manager
Moore Twining Associates, Inc.

Attachments: Drawings 1, 2, and 3
Tables 1, 2, and 3
Attachment A: Laboratory Analytical Reports

TABLES

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES - METHOD 8081
Daylight Solar – Avenal Cutoff Road and Laurel Avenue - Stratford, California

Sample ID and Depth	Sample Date	Sample Depth (ft)	4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	alpha BHC	alpha-Chlordane	beta BHC	Chlordane (technical)	delta BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	gamma BHC	gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxy-chlor	Toxaphene	Trifluralin
Results in Milligrams per Kilogram (mg/kg) DryWeight																								
CS-1	10/27/23	Surface	<0.0083	**0.12**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-2	10/27/23	Surface	<0.0083	**0.041**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-3	9/26/23	Surface	<0.0083	**0.14**	**0.014**	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-4	9/26/23	Surface	<0.0083	**0.055**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-5	9/26/23	Surface	<0.0083	**0.091**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-6	9/26/23	Surface	<0.0083	**0.011**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	**0.046**
CS-7	9/26/23	Surface	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-8	9/26/23	Surface	<0.0083	**0.087**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	**0.0083**
CS-9	9/26/23	Surface	<0.0083	**0.017**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	**0.020**
CS-10	9/26/23	Surface	<0.0083	**0.032**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-11	10/27/23	Surface	<0.0083	**0.11**	**0.014**	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-12	10/27/23	Surface	<0.0083	**0.02**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-13	9/26/23	Surface	<0.0083	**0.010**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
CS-14	9/26/23	Surface	<0.0083	**0.010**	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.030	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.017	<0.0083
Residential RSL			2.3	2.0	1.9	0.039	0.086	---	0.30	1.7	---	0.034	---	---	---	---	---	0.57	---	0.13	0.070	---	0.45	81
Industrial RSL			6.2	9.3	7.1	0.18	0.24	---	0.82	6.1	---	0.093	---	---	---	---	---	2	---	0.63	0.3	---	1.2	380

Notes:
RSL = Regional Screening Levels, U.S. EPA November 2022 (TR=1E-06 and THQ=1.0) - Available California DTSC HERRO Note 3 (June 2020 - Revised May 2022) values utilized. RSL values are in dry weight
<0.0091= Less than followed by the indicated laboratory reporting limit (not detected)
-- = dashed where screening levels are not available.
bold = values in bold represent detected concentrations above laboratory reporting limit
NA = not analyzed

0.14

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
HEAVY METALS - METHOD 6010B
Daylight Solar – Avenal Cutoff Road and Laurel Avenue - Stratford, California

Sample ID	Sample Date	Sample Depth (ft)	Arsenic	Lead
Results in Milligrams per Kilogram (mg/kg) Wet Weight				
CS-1C	10/27/23	Surface	<2.0	NA
CS-2A	10/27/23	Surface	<2.0	NA
CS-3C	9/26/23	Surface	<2.0	NA
CS-4A	9/26/23	Surface	<2.0	NA
CS-5C	9/26/23	Surface	<2.0	NA
CS-6D	9/26/23	Surface	<2.0	NA
CS-7B	9/26/23	Surface	<2.0	NA
CS-8C	9/26/23	Surface	<2.0	NA
CS-9D	9/26/23	Surface	<2.0	NA
CS-10C	9/26/23	Surface	<2.0	NA
CS-11D	10/27/23	Surface	<2.0	NA
CS-12C	10/27/23	Surface	<2.0	NA
SC-13D	9/26/23	Surface	<2.0	NA
SC-14C	9/26/23	Surface	<2.0	NA
Lead 1	9/26/23	Surface	NA	5.2
Lead 2	9/26/23	Surface	NA	4.6
Residential RSL			0.11 *	80
Industrial RSL			0.36 *	500
Hazardous Waste Classification (TTLC) [1]			500	1,000
Hazardous Waste Classification STLC Trigger Concentration [2]			50	50

Notes:

RSL = Regional Screening Levels, U.S. EPA November 2022 (TR=1E-06 and THQ=1.0) - Available California DTSC HERRO Note 3 (June 2020 - Revised May 2022) values utilized. RSL values are in dry weight.

<0.010 = Less than followed by the indicated laboratory reporting limit (not detected).

* = The screening numbers for arsenic are for contamination resulting from human activity. Concentrations of naturally occurring arsenic may be far above the screening number. According to the United States Geological Survey (USGS) Mineral Resource On-Line Spatial Data Base, naturally occurring surficial arsenic in soil is reported to range between approximately 5.7 to 7.1 mg/kg in the area of the site.

1 = Total threshold limit concentration in mg/kg wet weight used for California regulated hazardous waste. Source is California Code of Regulations, Title 22, Chapter 11, Article 3.

2 = Trigger concentration (milligrams per kilogram) equals ten times the Soluble Threshold Limit Concentration (STLC) based on Waste Extraction Test. Used for California regulated hazardous waste. Source is California Code of Regulations, Title 22, Chapter 11, Article 3. If the detected metal concentration equals or exceeds the STLC Trigger concentration value, the waste extraction test (WET) should be used. If any substance in the waste so analyzed exceeds the STLC value, it is considered a hazardous toxic waste.

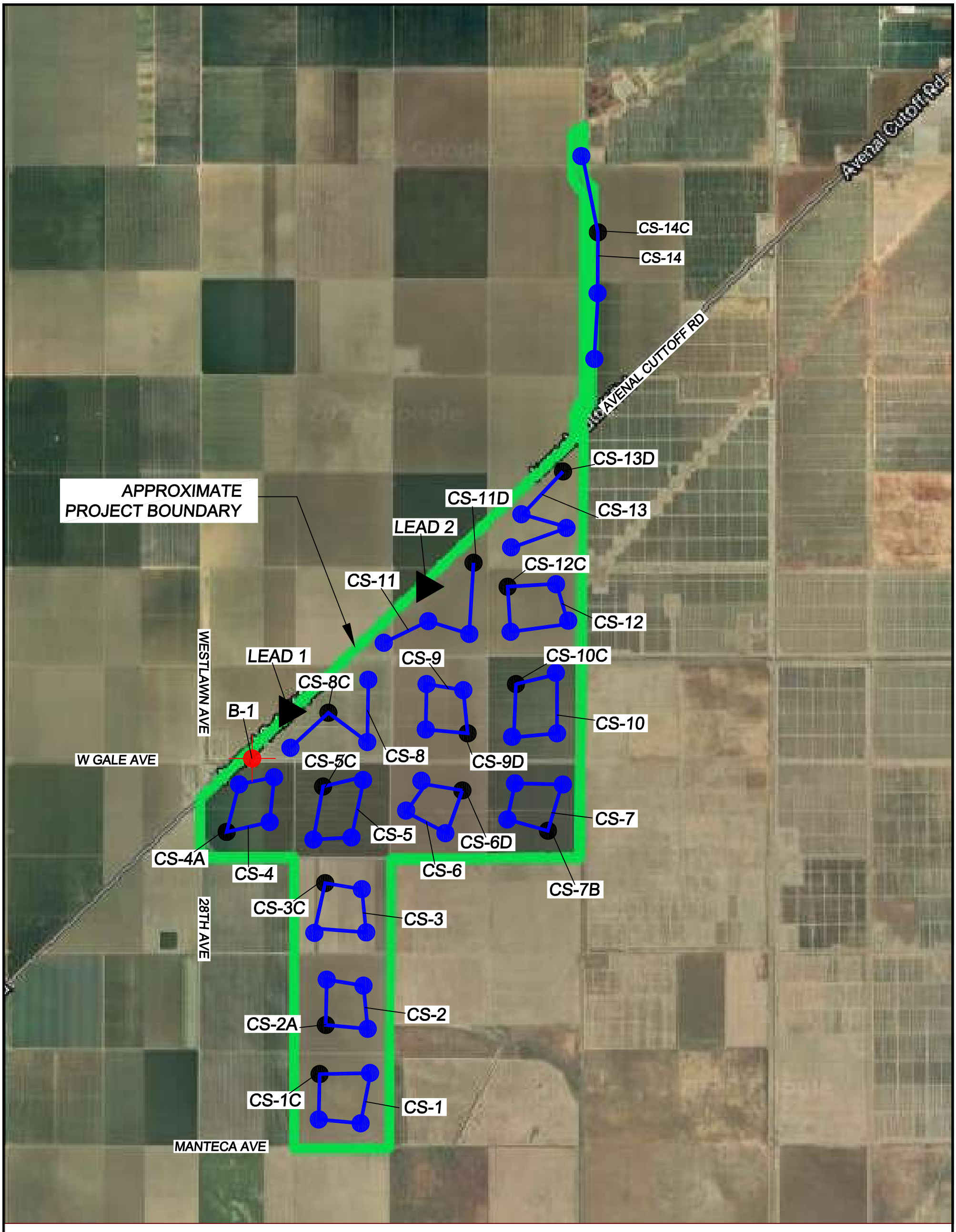
3 = Value is for mercuric chloride and not elemental mercury.

TABLE 3
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
pH, EC, and Chloride
Daylight Solar – Avenal Cutoff Road and Laurel Avenue - Stratford, California

Sample ID	Sample Date	Sample Depth (ft)	pH	EC (µS/cm)	Chloride (mg/kg)
T1-0.5'	9/26/23	0.5	**8.0**	**660**	NA
T2-0.5'	9/26/23	0.5	**7.6**	**2,600**	**220**
B1-1.0' (background)	10/27/23	1.0	**8.0**	**750**	**750**

Notes:
NA = not analyzed
<5.0 = Less than followed by the indicated laboratory reporting limit (not detected)
µS/cm = microsiemens per centimeter
mg/kg = milligrams per kilogram

DRAWINGS



SOIL SAMPLE LOCATIONS
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAURAL AVENUE
STRATFORD, CA

FILE NO. C64411.07	DATE DRAWN: 10/30/23
DRAWN BY: RM	APPROVED BY:
PROJECT NO. C64411.07	DRAWING NO. 1

MOORE TWINING ASSOCIATES, INC.

SOIL SAMPLE LOCATIONS

N

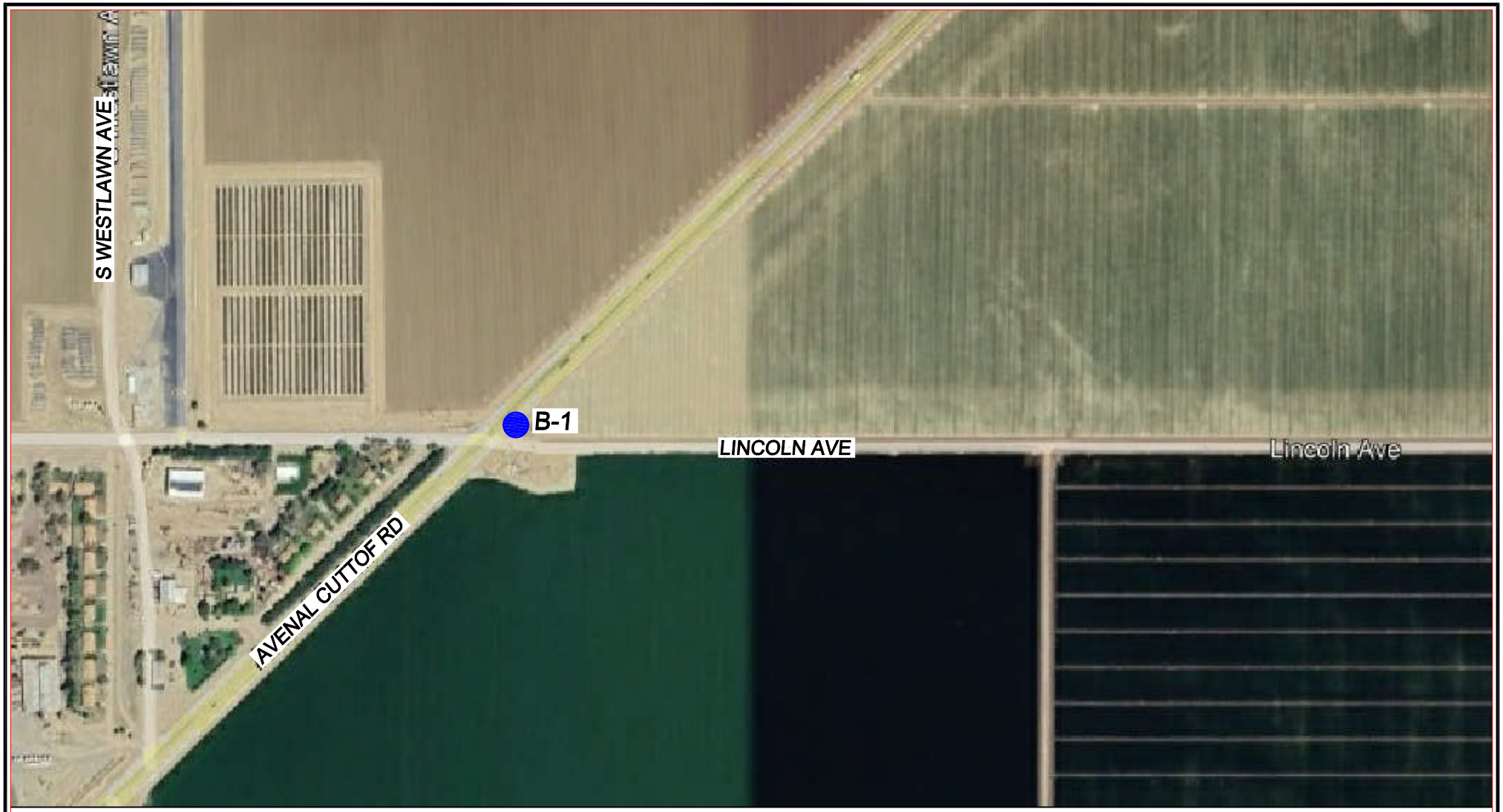
0 50

APPROXIMATE SCALE
IN FEET

SOIL SAMPLE LOCATIONS
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAURAL AVENUE
STRATFORD, CA

FILE NO. C64411.07	DATE DRAWN: 10/30/23
DRAWN BY: KLM	APPROVED BY:
PROJECT NO. C64411.07	DRAWING NO. 2

MOORE TWINING ASSOCIATES, INC.
Since 1898



SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION

N

0 50

APPROXIMATE SCALE IN FEET

SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
DAYLIGHT LEGACY SOLAR PROJECT
AVENAL CUTOFF ROAD & LAURAL AVENUE
STRATFORD, CA

FILE NO. C64411.07	DATE DRAWN: 10/30/23
DRAWN BY: KLM	APPROVED BY:
PROJECT NO. C64411.07	DRAWING NO. 3

MOORE TWINING ASSOCIATES, INC.
Since 1898

APPENDIX A

Laboratory Report and Chain of Custody Documentation

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

November 14, 2023

Work Order #: **JI26025**

Keith Mayes
MTA Environmental Division
2527 Fresno Street
Fresno, CA 93721

RE: Daylight Legacy Solar

Enclosed are the analytical results for samples received by our laboratory on **09/26/23** . For your reference, these analyses have been assigned laboratory work order number **JI26025**.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

Susan Federico
Client Services Representative

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

Analytical Report for the Following Samples

Sample ID	Notes	Laboratory ID	Matrix	Date Sampled	Date Received
CS-3		JI26025-01	Soil	09/26/23 10:17	09/26/23 15:10
CS-4		JI26025-02	Soil	09/26/23 10:25	09/26/23 15:10
CS-5		JI26025-03	Soil	09/26/23 10:30	09/26/23 15:10
CS-6		JI26025-04	Soil	09/26/23 10:37	09/26/23 15:10
CS-7		JI26025-05	Soil	09/26/23 10:35	09/26/23 15:10
CS-8		JI26025-06	Soil	09/26/23 12:00	09/26/23 15:10
CS-9		JI26025-07	Soil	09/26/23 11:30	09/26/23 15:10
CS-10		JI26025-08	Soil	09/26/23 11:01	09/26/23 15:10
CS-13		JI26025-09	Soil	09/26/23 13:00	09/26/23 15:10
CS-14		JI26025-10	Soil	09/26/23 12:45	09/26/23 15:10
CS-3C		JI26025-11	Soil	09/26/23 09:00	09/26/23 15:10
CS-4A		JI26025-12	Soil	09/26/23 09:42	09/26/23 15:10
CS-5C		JI26025-13	Soil	09/26/23 09:30	09/26/23 15:10
CS-6D		JI26025-14	Soil	09/26/23 10:04	09/26/23 15:10
CS-7B		JI26025-15	Soil	09/26/23 10:15	09/26/23 15:10
CS-8C		JI26025-16	Soil	09/26/23 11:53	09/26/23 15:10
CS-9D		JI26025-17	Soil	09/26/23 11:10	09/26/23 15:10
CS-10C		JI26025-18	Soil	09/26/23 10:50	09/26/23 15:10
CS-13D		JI26025-19	Soil	09/26/23 12:25	09/26/23 15:10
CS-14C		JI26025-20	Soil	09/26/23 12:37	09/26/23 15:10
Lead 1		JI26025-21	Soil	09/26/23 11:45	09/26/23 15:10
Lead 2		JI26025-22	Soil	09/26/23 12:10	09/26/23 15:10
T1-0.5'		JI26025-23	Soil	09/26/23 09:12	09/26/23 15:10
T2-0.5'		JI26025-24	Soil	09/26/23 09:20	09/26/23 15:10

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-3

JI26025-01 (Soil) Sampled: 09/26/23 10:17

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.14**	0.033	mg/kg	4	B3I2814	09/28/23	10/02/23	EPA 8081A
4,4´-DDT		**0.014**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*57.8%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*56.6%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-4

JI26025-02 (Soil) Sampled: 09/26/23 10:25

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.055**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-4

JI26025-02 (Soil) Sampled: 09/26/23 10:25

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*57.6%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*54.8%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-5

JI26025-03 (Soil) Sampled: 09/26/23 10:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.091**	0.033	mg/kg	4	B3I2814	09/28/23	10/02/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-5

JI26025-03 (Soil) Sampled: 09/26/23 10:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*63.0%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*57.4%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-6

JI26025-04 (Soil) Sampled: 09/26/23 10:37

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.011**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		**0.046**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*57.4%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*43.5%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-7

JI26025-05 (Soil) Sampled: 09/26/23 10:35

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-7

JI26025-05 (Soil) Sampled: 09/26/23 10:35

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*60.6%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*54.7%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-8

JI26025-06 (Soil) Sampled: 09/26/23 12:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.087**	0.033	mg/kg	4	B3I2814	09/28/23	10/02/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
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MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-8

JI26025-06 (Soil) Sampled: 09/26/23 12:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		**0.0083**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*67.4%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*55.6%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-9

JI26025-07 (Soil) Sampled: 09/26/23 11:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.017**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-9

JI26025-07 (Soil) Sampled: 09/26/23 11:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Trifluralin		**0.020**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*65.3%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*59.7%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-10

JI26025-08 (Soil) Sampled: 09/26/23 11:01

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.032**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*60.5%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*46.5%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-13

JI26025-09 (Soil) Sampled: 09/26/23 13:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
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(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-13

JI26025-09 (Soil) Sampled: 09/26/23 13:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.010**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*61.4%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*53.7%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-14

JI26025-10 (Soil) Sampled: 09/26/23 12:45

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDE		**0.010**	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
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MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-14

JI26025-10 (Soil) Sampled: 09/26/23 12:45

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Endosulfan II		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3I2814	09/28/23	09/29/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*67.4%*	*Recovery Limits: 11.4% - 122%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*55.9%*	*Recovery Limits: 8.5% - 170%*			*B3I2814*	09/28/23	09/29/23	*EPA 8081A*

CS-3C

JI26025-11 (Soil) Sampled: 09/26/23 09:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-4A

JI26025-12 (Soil) Sampled: 09/26/23 09:42

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-5C

JI26025-13 (Soil) Sampled: 09/26/23 09:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-6D

JI26025-14 (Soil) Sampled: 09/26/23 10:04

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

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(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-6D

JI26025-14 (Soil) Sampled: 09/26/23 10:04

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-7B

JI26025-15 (Soil) Sampled: 09/26/23 10:15

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-8C

JI26025-16 (Soil) Sampled: 09/26/23 11:53

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-9D

JI26025-17 (Soil) Sampled: 09/26/23 11:10

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-10C

JI26025-18 (Soil) Sampled: 09/26/23 10:50

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

CS-13D

JI26025-19 (Soil) Sampled: 09/26/23 12:25

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

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MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-14C

JI26025-20 (Soil) Sampled: 09/26/23 12:37

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

Lead 1

JI26025-21 (Soil) Sampled: 09/26/23 11:45

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Lead		**5.2**	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

Lead 2

JI26025-22 (Soil) Sampled: 09/26/23 12:10

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Lead		**4.6**	2.0	mg/kg	1	B3I2710	10/04/23	10/04/23	EPA 6010B

T1-0.5'

JI26025-23 (Soil) Sampled: 09/26/23 09:12

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Inorganics									
Specific Conductance (EC) at 25 °C		**660**	1.0	µS/cm	1	B3J0703	10/07/23	10/07/23	WREP 125 (S-2.30)
pH		**8.0**	0.10	pH Units	1	B3J0702	10/07/23	10/07/23	EPA 9045C
Temperature		**22**	0.10	°C	1	B3J0702	10/07/23	10/07/23	SM 2550 B

T2-0.5'

JI26025-24 (Soil) Sampled: 09/26/23 09:20

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Inorganics									
Chloride		**220**	6.0	mg/kg	3	B3J0314	10/04/23	10/05/23	Cal Test 422
Specific Conductance (EC) at 25 °C		**2600**	1.0	µS/cm	1	B3J0703	10/07/23	10/07/23	WREP 125 (S-2.30)
pH		**7.6**	0.10	pH Units	1	B3J0702	10/07/23	10/07/23	EPA 9045C
Temperature		**23**	0.10	°C	1	B3J0702	10/07/23	10/07/23	SM 2550 B

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

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MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

Notes and Definitions

µg/L	micrograms per liter (parts per billion concentration units)
mg/L	milligrams per liter (parts per million concentration units)
mg/kg	milligrams per kilogram (parts per million concentration units)
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

Analysis of pH, filtration, and residual chlorine is to take place immediately after sampling in the field. If the test was performed in the laboratory, the hold time was exceeded. **(for aqueous matrices only)**

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MTA MOORE TWINING ASSOCIATES, INC. EST. 1898

ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: JI26025
PAGE 1 **OF** 4

REPORT TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

☐ INVOICE TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

☐ REPORT COPY TO:

REPORTING:
X STANDARD FORMAT
☐ WRITE-ON (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ SPREADSHEET
☐ County DHS :
☐ Environmental Health Agency :
X OTHER:
__Standard Excel/J-flag report__

SAMPLE INFORMATION

SAMPLED BY (PRINT): Joe Clark/Gabe Moran
SIGNATURE:

☐ PUBLIC SYSTEM X ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT

TURN AROUND TIME: ☐ RUSH, DUE ON: _____
☐ STANDARD

SAMPLE TYPES:
SOLID:
BS – BIOSOLID
CR – CERAMIC
SL – SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW – WASTE WATER

PROJECT INFORMATION

CONTRACT/P.O. NO.:
PROJECT: Daylight Legacy Solar
PROJECT NUMBER: C64411.07
PROJECT MANAGER: Keith Mayes

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

ANALYSIS REQUESTED

	CLIENT SAMPLE ID	DATE	TIME	TYPE	Arsenic	Total Lead	OCPs (Pest)	pH	EC					
1	CS-3	09/26/23	1017	SL			X							
2	CS-4	09/26/23	1025	SL			X							
3	CS-5	09/26/23	1030	SL			X							
4	CS-6	09/26/23	1037	SL			X							
5	CS-7	09/26/23	1035	SL			X							
6	CS-8	09/26/23	1200	SL			X							
7	CS-9	09/26/23	1130	SL			X							
8	CS-10	09/26/23	1101	SL			X							
9	CS-13	09/26/23	1300	SL			X							
10	CS-14	09/26/23	1245	SL			X							

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
	MTA	9/26/23	1510		MTA

MOORE TWINING ASSOCIATES, INC.
EST. 1898
ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: JI26025
PAGE 2 **OF** 4

REPORT TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

☐ INVOICE TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

☐ REPORT COPY TO:

REPORTING:
X STANDARD FORMAT
☐ WRITE-ON (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ SPREADSHEET
☐ County DHS :
☐ Environmental Health Agency :
X OTHER: Standard Excel/J-flag report

SAMPLE INFORMATION
SAMPLED BY (PRINT): Joe Clark/Gabe Moran
SIGNATURE:
☐ PUBLIC SYSTEM X ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT
TURN AROUND TIME: ☐ RUSH, DUE ON: _____
☐ STANDARD

SAMPLE TYPES:
SOLID:
BS – BIOSOLID
CR – CERAMIC
SL – SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW – WASTE WATER

PROJECT INFORMATION
CONTRACT/P.O. NO.:
PROJECT: Daylight Legacy Solar
PROJECT NUMBER: C64411.07
PROJECT MANAGER: Keith Mayes

LAB USE
NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

ANALYSIS REQUESTED

	CLIENT SAMPLE ID	DATE	TIME	TYPE	Arsenic (Bag)	Total Lead	OCPs	pH	EC					
11	CS-3C	09/26/23	0900	SL	X									
12	CS-4A	09/26/23	0942	SL	X									
13	CS-5C	09/26/23	0930	SL	X									
14	CS-6D	09/26/23	1004	SL	X									
15	CS-7B	09/26/23	1015	SL	X									
16	CS-8C	09/26/23	1153	SL	X									
17	CS-9D	09/26/23	1110	SL	X									
18	CS-10C	09/26/23	1050	SL	X									
19	CS-13D	09/26/23	1225	SL	X									
20	CS-14C	09/26/23	1237	SL	X									

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
	MTA	9/26/23			

MTA MOORE TWINING ASSOCIATES, INC. EST. 1898

ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: J126025
PAGE 3 **OF** 4

REPORT TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

☐ INVOICE TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
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☐ County DHS :
☐ Environmental Health Agency :
X OTHER: Standard Excel/J-flag report

SAMPLE INFORMATION
SAMPLED BY (PRINT): Joe Clark/Gabe Moran
SIGNATURE:
☐ PUBLIC SYSTEM X ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT
TURN AROUND TIME: ☐ RUSH, DUE ON: ☐ STANDARD

SAMPLE TYPES:
SOLID:
BS – BIOSOLID
CR – CERAMIC
SL – SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW – WASTE WATER

PROJECT INFORMATION
CONTRACT/P.O. NO.:
PROJECT: Daylight Legacy Solar
PROJECT NUMBER: C64411.07
PROJECT MANAGER: Keith Mayes

LAB USE
NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

	CLIENT SAMPLE ID	DATE	TIME	TYPE	Arsenic	Total Lead (Bnel)	OCPs	pH (TVL)	EC	Chlorite				
21	Lead 1	09/26/23	1145	SL		X								
22	Lead 2	09/26/23	1210	SL		X								
23	T1 – 0.5'	09/26/23	0912	SL				X	X					
24	T2 – 0.5'	09/26/23	0920	SL				X	X	X				
		09/26/23		SL										
		09/26/23		SL										
		09/26/23		SL										
		09/26/23		SL										
		09/26/23		SL										
		09/26/23		SL										

ANALYSIS REQUESTED

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
	MTA	9/26/23			MTA

Sample Integrity — Page 4 of 4 — Moore Twining Associates WO# JI26025 — MTA Bottles: Yes or No

COC Info

Was temperature within range? Chemistry ≤6°C Micro <10°C Temp ____ °C	Yes No N/A	Did all bottle labels agree with COC?	Yes No N/A	Were there bubbles in VOA vials? (Volatiles Only)	Yes No N/A
If samples were taken today, is there evidence that chilling has begun? Recvd 22.0 C°	Yes No N/A	Was a sufficient amount of sample received?	Yes No N/A	Was PM notified of discrepancies? PM: By/Time:	Yes No N/A
Did all bottles arrive unbroken and intact?	Yes No N/A	Were correct containers and preservatives received for the tests requested?	Yes No N/A		
Do samples have a hold time <72 hours?	Yes No N/A				

Bottles Received

125ml (A) 250ml (B) 1Liter (C) 40ml VOA (V)	1-10	11-22	23-29
Bacti $Na_2S_2O_3$			
None (P)			
None (AG)			
None (CG) 500ml			
Cr6 Buffer (P) Borate Carbonate Buffer			
Dissolved Oxygen 300ml (P)			
HNO_3 (P)			
HCl (AG)			
H_2SO_4 (P)			
H_3PO_4 (AG)			
NaOH (P)			
NaOH + ZnAc (P)			
$Na_2S_2O_3$ (AG) Thio			
$Na_2S_2O_3$ (CG) Thio			
$Na_2S_2O_3$ 250ml (Brown P) 549			
Thio/K Citrate			
NH_4Cl (AG) 552			
Other:			
Client Own			
Low Level Hg/Metals Double Bag			
Plastic Bag		1	
Glass Jar: 125 / 250 / 500			
Soil Tube: Brass / Steel / Plastic	1		1
5g Encore			
1G Cubitaner			

Comments

Filter or Split		Container	Preservative	Date/Time/Initials
	S P F			
	S P F			
	S P F			
	S P F			
	S P F			

Labeled by: YG @ ____ Labels checked by: YG @ 1545

FL-SC-0003-07

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

November 14, 2023

Work Order #: **JJ27021**

Keith Mayes
MTA Environmental Division
2527 Fresno Street
Fresno, CA 93721

RE: Daylight Legacy Solar

Enclosed are the analytical results for samples received by our laboratory on **10/27/23** . For your reference, these analyses have been assigned laboratory work order number **JJ27021**.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

Susan Federico
Client Services Representative

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

Analytical Report for the Following Samples

Sample ID	Notes	Laboratory ID	Matrix	Date Sampled	Date Received
CS-1		JJ27021-01	Soil	10/27/23 10:35	10/27/23 14:20
CS-2		JJ27021-02	Soil	10/27/23 10:42	10/27/23 14:20
CS-11		JJ27021-03	Soil	10/27/23 10:02	10/27/23 14:20
CS-12		JJ27021-04	Soil	10/27/23 09:39	10/27/23 14:20
CS-1C		JJ27021-05	Soil	10/27/23 10:35	10/27/23 14:20
CS-2A		JJ27021-06	Soil	10/27/23 10:42	10/27/23 14:20
CS-11D		JJ27021-07	Soil	10/27/23 09:58	10/27/23 14:20
CS-12C		JJ27021-08	Soil	10/27/23 09:28	10/27/23 14:20
B1-1.0'		JJ27021-09	Soil	10/27/23 00:00	10/27/23 14:20
B-1		JJ27021-10	Ground Water	10/27/23 12:30	10/27/23 14:20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-1

JJ27021-01 (Soil) Sampled: 10/27/23 10:35

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDE		**0.12**	0.042	mg/kg	5	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*59.6%*	*Recovery Limits: 11.4% - 122%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*65.5%*	*Recovery Limits: 8.5% - 170%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*

CS-2

JJ27021-02 (Soil) Sampled: 10/27/23 10:42

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDE		**0.041**	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A

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MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-2

JJ27021-02 (Soil) Sampled: 10/27/23 10:42

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Endosulfan II		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*56.2%*	*Recovery Limits: 11.4% - 122%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*61.4%*	*Recovery Limits: 8.5% - 170%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*

CS-11

JJ27021-03 (Soil) Sampled: 10/27/23 10:02

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDE		**0.11**	0.042	mg/kg	5	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDT		**0.014**	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

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Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-11

JJ27021-03 (Soil) Sampled: 10/27/23 10:02

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
Trifluralin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*62.0%*	*Recovery Limits: 11.4% - 122%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*68.8%*	*Recovery Limits: 8.5% - 170%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*

CS-12

JJ27021-04 (Soil) Sampled: 10/27/23 09:39

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDE		**0.020**	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
4,4´-DDT		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Aldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
alpha-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
beta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Chlordane (tech)		ND	0.030	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
delta-BHC		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Dieldrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan I		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan II		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endosulfan sulfate		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin aldehyde		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Endrin ketone		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
gamma-Chlordane		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Heptachlor epoxide		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Methoxychlor		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Toxaphene		ND	0.017	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Trifluralin		ND	0.0083	mg/kg	1	B3K0206	11/02/23	11/02/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*52.3%*	*Recovery Limits: 11.4% - 122%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*53.2%*	*Recovery Limits: 8.5% - 170%*			*B3K0206*	11/02/23	11/02/23	*EPA 8081A*

CS-1C

JJ27021-05 (Soil) Sampled: 10/27/23 10:35

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3J3105	11/08/23	11/09/23	EPA 6010B

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

CS-2A

JJ27021-06 (Soil) Sampled: 10/27/23 10:42

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3J3105	11/08/23	11/10/23	EPA 6010B

CS-11D

JJ27021-07 (Soil) Sampled: 10/27/23 09:58

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3J3105	11/08/23	11/10/23	EPA 6010B

CS-12C

JJ27021-08 (Soil) Sampled: 10/27/23 09:28

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		ND	2.0	mg/kg	1	B3J3105	11/08/23	11/10/23	EPA 6010B

B1-1.0'

JJ27021-09 (Soil) Sampled: 10/27/23 00:00

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Inorganics									
Chloride		**750**	60	mg/kg	30	B3K0215	11/02/23	11/03/23	EPA 300.0
Specific Conductance (EC) at 25 °C		**750**	1.0	µS/cm	1	B3J3018	10/31/23	10/31/23	WREP 125 (S-2.30)
pH		**8.0**	0.10	pH Units	1	B3J3110	10/30/23	10/31/23	EPA 9045C
Temperature		**21**	0.10	°C	1	B3J3110	10/30/23	10/31/23	SM 2550 B

B-1

JJ27021-10 (Ground Water) Sampled: 10/27/23 12:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Arsenic		**1.5**	1.0	µg/L	1	B3J2615	11/04/23	11/04/23	EPA 200.8
Semi-Volatile Organics									
8081A Twining									
4,4´-DDD		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
4,4´-DDE		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
4,4´-DDT		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Aldrin		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
alpha-BHC		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
alpha-Chlordane		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Environmental Division	**Project:** Daylight Legacy Solar	**Reported:**
2527 Fresno Street	**Project Number:** C64411.07	11/14/2023
Fresno CA, 93721	**Project Manager:** Keith Mayes	

B-1

JJ27021-10 (Ground Water) Sampled: 10/27/23 12:30

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Organics									
8081A Twining									
beta-BHC		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Chlordane (tech)		ND	0.10	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
delta-BHC		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Dieldrin		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endosulfan I		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endosulfan II		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endosulfan sulfate		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endrin		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endrin aldehyde		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Endrin ketone		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
gamma-BHC (Lindane)		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
gamma-Chlordane		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Heptachlor		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Heptachlor epoxide		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Methoxychlor		ND	0.010	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Toxaphene		ND	0.50	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Trifluralin		ND	0.020	µg/L	1	B3K0109	11/01/23	11/01/23	EPA 8081A
Surr: Decachlorobiphenyl (DCB)		*29.8%*	*Recovery Limits: 28.2% - 144%*			*B3K0109*	11/01/23	11/01/23	*EPA 8081A*
Surr: Tetrachloro-meta-xylene (TMX)		*62.1%*	*Recovery Limits: 34.4% - 113%*			*B3K0109*	11/01/23	11/01/23	*EPA 8081A*

Notes and Definitions

DUP1	A high RPD was observed between a sample and this sample's duplicate.
µg/L	micrograms per liter (parts per billion concentration units)
mg/L	milligrams per liter (parts per million concentration units)
mg/kg	milligrams per kilogram (parts per million concentration units)
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference

Analysis of pH, filtration, and residual chlorine is to take place immediately after sampling in the field.
If the test was performed in the laboratory, the hold time was exceeded. **(for aqueous matrices only)**

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.
EST. 1898
ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY/ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: JJ27021
PAGE 1 **OF** 1

REPORT TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

□ INVOICE TO:

ATTENTION: Keith Mayes
NAME: MTA Environmental
ADDRESS: 2527 Fresno Street
Fresno, CA 93721
PHONE: (559) 268-7021
FAX: (559) 268-7126

□ REPORT COPY TO:

REPORTING:

X STANDARD FORMAT
□ WRITE-ON (STATE FORM)
□ GEOTRACKER/COELT (LUFT)
□ PDF □ SPREADSHEET
□ County DHS :
□ Environmental Health Agency :
X OTHER: Standard Excel/J-flag report

SAMPLE INFORMATION

SAMPLED BY (PRINT): Keith Mayes
SIGNATURE:

□ PUBLIC SYSTEM X ROUTINE
□ PRIVATE WELL □ REPEAT
□ OTHER □ REPLACEMENT

TURN AROUND TIME: X STANDARD □ RUSH, DUE ON:

SAMPLE TYPES:

SOLID:
BS – BIOSOLID
CR – CERAMIC
SL – SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW – WASTE WATER

PROJECT INFORMATION

CONTRACT/P.O. NO.:
PROJECT: Daylight Legacy Solar
PROJECT NUMBER: C64411.07
PROJECT MANAGER: Keith Mayes

ANALYSIS REQUESTED

LAB USE

NOTES ON RECEIVED CONDITION:
□ CUSTODY SEAL(S) BROKEN □ SAMPLE(S) DAMAGED
X ON ICE □ AMBIENT TEMP. □ INCORRECT PRESERVATION
5.9

	CLIENT SAMPLE ID	DATE	TIME	TYPE	Arsenic	OCPs	Chloride	pH	EC					
1	CS-1	10/27/23	10:35	SL		X								
2	CS-2	10/27/23	10:42	SL		X								
3	CS-11	10/27/23	10:02	SL		X								
4	CS-12	10/27/23	09:39	SL		X								
5	CS-1C	10/27/23	10:35	SL	X									
6	CS-2A	10/27/23	10:42	SL	X									
7	CS-11D	10/27/23	09:58	SL	X									
8	CS-12C	10/27/23	09:28	SL	X									
9	B1-1.0'	10/27/23	08:30	SL			X	X	X					
10	B-1	10/27/23	12:30	GW	X	X								

COMMENTS/ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
	MTA	10/27/23	1420		MTA

Sample Integrity — Page 2 of 2 — Moore Twining Associates — WO# 427021 — MTA Bottles: Yes or No

COC Info

Was temperature within range? Chemistry ≤6°C Micro <10°C Temp ____ °C	Yes No N/A	Did all bottle labels agree with COC?	Yes No N/A	Were there bubbles in VOA vials? (Volatiles Only)	Yes No N/A
If samples were taken today, is there evidence that chilling has begun? Recvd 5.9 C°	Yes No N/A	Was a sufficient amount of sample received?	Yes No N/A	Was PM notified of discrepancies? PM: By/Time:	Yes No N/A
Did all bottles arrive unbroken and intact?	Yes No N/A	Were correct containers and preservatives received for the tests requested?	Yes No N/A		
Do samples have a hold time <72 hours?	Yes No N/A				

Bottles Received

125ml (A) 250ml (B) 1Liter (C) 40ml VOA (V)	1-4	5-8	9	10														
Bacti $Na_2S_2O_3$																		
None (P)																		
None (AG)																		
None (CG) 500ml				1-C														
Cr6 Buffer (P) Borate Carbonate Buffer																		
Dissolved Oxygen 300ml (P)																		
HNO_3 (P)				1-A														
HCl (AG)				1134														
H_2SO_4 (P)																		
H_3PO_4 (AG)																		
NaOH (P)																		
NaOH + ZnAc (P)																		
$Na_2S_2O_3$ (AG) Thio																		
$Na_2S_2O_3$ (CG) Thio																		
$Na_2S_2O_3$ 250ml (Brown P) 549																		
Thio/K Citrate																		
NH_4Cl (AG) 552																		
Other:																		
Client Own																		
Low Level Hg/Metals Double Bag																		
Plastic Bag		1																
Glass Jar: 125 / 250 / 500																		
Soil Tube: Brass / (Steel) / Plastic	1		1															
5g Encore																		
1G Cubitaner																		

Comments

Filter or Split	Container	Preservative	Date/Time/Initials
S P F			
S P F			
S P F			
S P F			
S P F			

Labeled by: YB @ ____ Labels checked by: YB @ 1422

FL-SC-0003-07

APPENDIX E

Mitigation Monitoring and Reporting Program (MMRP)

February 2024

MITIGATION MONITORING AND REPORTING PROGRAM

DAYLIGHT LEGACY SOLAR PROJECT AND GEN-TIE LINE

CUP NO. 23-03

COUNTY OF KINGS, CALIFORNIA

FEBRUARY 2024

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.2. AGRICULTURE AND FORESTRY RESOURCES			
Mitigation Measure AG-1: Agricultural Management Plan. Prior to the issuance of a building permit, the applicant shall submit to Kings County an Agricultural Management Plan (AMP) that provides for the ongoing agricultural productivity of the entire project site for the life of the project. The AMP shall specify that at least 90 percent of this area of the site shall be vegetated with grasses and forbs and shall be managed for dry farm seasonal sheep grazing. The AMP shall include specific provisions for soil preparation and revegetation including specifications for a seed mix which is appropriate to the soil and climatic conditions in the absence of irrigation, methods of avoiding invasive species, and a list of acceptable vegetation that meets the dietary needs of sheep while consisting predominantly of native species. The AMP shall include detailed provisions to ensure the successful establishment of the planned vegetative cover, and shall identify appropriate maintenance activities, including conditions under which herbicides may be used, and particularly the identification and selection of herbicides that are non-toxic to livestock and wildlife. The AMP shall also prescribe the management practices for sheep grazing. The AMP shall include provisions for ongoing monitoring and annual reporting of agricultural activity on the site to the Kings County Community Development Agency. The AMP shall also comply with the requirements of the Kings County Development Code related to weed abatement and pest control.	Responsible Party: Applicant/Operator *Actions:* Prior to Building Permit Issuance: Prepare and submit AMP to Kings County CDA. During Project Operation: Implement AMP as approved by Kings County CDA.	Monitoring Agency: Kings County Community Development Agency (CDA). *Actions:* Prior to Building Permit Issuance: Verify that AMP is complete and in compliance with County requirements. During Project Operation: Conduct field inspections to verify implementation of AMP as approved.	
Mitigation Measure AG-2: Soil Reclamation Plan. Prior to the issuance of a building permit, the applicant shall submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the entire project site at the end of the project's useful life. The Plan shall contain an analysis of general pre-construction conditions of the project site, and the site shall be photographically documented by the applicant prior to the start of construction. The Plan shall contain specific measures to restore the soil to approximate its pre-project condition, 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, consisting predominantly of native species, and designed to maximize revegetation with native 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 would 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.	Responsible Party: Applicant/Operator *Actions:* Prior to Building Permit Issuance: Prepare and submit Soil Reclamation Plan to Kings County CDA. During Project Decommissioning: Implement Soil Reclamation Plan as approved by Kings County CDA.	Monitoring Agency: Kings County CDA. *Actions:* Prior to Building Permit Issuance: Verify that Soil Reclamation Plan is complete and in compliance with County requirements. During Project Decommissioning: Conduct field inspections to verify implementation Soil Reclamation Plan as approved.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.2. AGRICULTURE AND FORESTRY RESOURCES			
(*Continued*) All waste shall be recycled and disposed of in compliance with applicable law. The applicant shall verify the completion of reclamation within 18 months after expiration of the project use permit with Planning Division staff.			
Mitigation Measure AG-3: Financial Assurance. Prior to the issuance of a building permit, the applicant shall either 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 shall 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 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.	Responsible Party: Applicant/Operator *Actions:* Prior to Building Permit Issuance: Submit financial assurance to Kings County CDA. Every Five Years: Prepare and submit revised Engineer's Cost Estimate, and submit adjusted financial assurance to Kings County CDA.	Monitoring Agency: Kings County CDA. *Actions:* Prior to Building Permit Issuance: Verify that acceptable financial assurance has been provided. Every Five Years: Verify completion of revised Engineer's Cost Estimate and confirm adjustment of the amount of assurance.	
4.4 BIOLOGICAL RESOURCES			
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 Daylight Legacy 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 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.	Responsible Party: Applicant/Contractor/ Operator *Actions:* Prior to Construction: 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. (*Continued*	Monitoring Agency: Kings County CDA. *Actions:* Prior to Construction: 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. (*Continued*	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
(*Continued from preceding page*.) b. Kit Fox Avoidance Measures. Should San Joaquin kit fox be found using the Daylight Legacy 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. If USFWS cannot be contacted, the following minimum distances must be adhered to: Potential den: 50 Feet Atypical den: 50 feet Known den: 100 feet Natal/pupping den (occupied and unoccupied): Service must be contacted Additionally, placement of 4-5 flagged stakes 50 feet from the entrance of potential and atypical dens shall be placed to identify the den location and the exclusion zone must be observed. 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 Daylight Legacy 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 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-1. The protection measures set forth in Table BIO-1 are fully incorporated into this mitigation measure by reference. (*Continued*)	During Construction: 1) Install wildlife-friendly fencing; 2) Implement disturbance minimization measures, as specified; 3) Report any kit fox mortalities as specified. During Project Operation: 1) Report any kit fox mortalities as specified.	During Construction: 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. During Project Operation: 1) Verify that any kit fox mortalities have been reported as required.	

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.*)

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 (CNDDB). 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

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
e. Mortality Reporting. The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death 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 Daylight Legacy 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.			
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 Daylight Legacy 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. (*Continued on next page.*)	Responsible Party: Applicant/Contractor *Actions:* Prior to Construction: 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; OR 3) Authorize biologist to establish exclusion zone around nest(s), as needed; 4) Direct qualified biologist to conduct employee education program. (*Continued*)	Monitoring Agency: Kings County CDA. *Actions:* Prior to Construction: 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. (*Continued*)	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
(*Continued from preceding page*.) 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, 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 Daylight Legacy 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. 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 Daylight Legacy Solar Project site, the poles shall be capped immediately after installation to prevent entrapment of birds.	During Construction: 1) Ensure that all hollow poles and posts are capped.	During Construction: 1) Conduct field inspection to confirm capping of poles and posts.	
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 Daylight Legacy Solar Project: a. Pre-Construction Surveys. Pre-construction surveys shall be conducted 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. (*Continued on next page*.)	Responsible Party: Applicant/Contractor *Actions:* Prior to Construction: 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); (*Continued*)	Monitoring Agency: Kings County CDA. *Actions:* Prior to Construction: 1) Verify completion of pre-construction surveys; 2) Conduct field inspection to verify establishment of any exclusion zone(s); (*Continued*)	

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
(*Continued from preceding page*.) 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 the 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 250 feet around each active burrow. 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.	3) Direct qualified biologist to conduct employee education program; 4) Implement mitigation, as needed, per recommendation of qualified biologist.	3) Verify completion of employee education prior to ground disturbing activities; 4) Verify implementation of any required mitigation.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
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 Daylight Legacy Solar Project: a. Pre-Construction Surveys. During the nesting season prior to the construction on the Daylight Legacy Solar Project site, preconstruction surveys shall be conducted within a half-mile of a potential nest tree located on and within a half-mile of the project site 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.	Responsible Party: Applicant/Contractor Actions: Prior to Construction: 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); 3) Direct qualified biologist to conduct employee education program.	Monitoring Agency: Kings County CDA. Actions: Prior to Construction: 1) Verify completion of pre-construction surveys; 2) Conduct field inspection to verify establishment of any exclusion zone(s); 3) Verify completion of employee education prior to ground disturbing activities.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.4 BIOLOGICAL RESOURCES (CONT'D)			
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 Daylight Legacy 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 to be present 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.	Responsible Party: Applicant/Contractor *Actions:* Prior to Construction: 1) Authorize qualified biologist to conduct preconstruction surveys; 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; 3) Direct qualified biologist to conduct employee education program.	Monitoring Agency: Kings County CDA. *Actions:* Prior to Construction: 1) Verify completion of pre-construction surveys; 2) Conduct field inspection to verify establishment of any exclusion zone(s); 3) Verify completion of employee education prior to ground disturbing activities.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.5 CULTURAL RESOURCES			
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 of the Daylight Legacy Solar Project: a) Provide Tribal Representatives with Results of Archaeological Investigations: Prior to the issuance of the first building permit for the project, the project proponents shall provide the Santa Rosa Rancheria Tachi Yokut Tribe with the results of the archaeological record search, archaeological survey, and Sacred Lands File search through the Native American Heritage Commission. b) Curation Agreement: Prior to the issuance of the first building permit for the project, a Curation Agreement, as approved by the Santa Rosa Rancheria Tachi Yokut Tribe, shall be in place. c) 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. d) Pre-Construction and Pre-Decommissioning Briefings: The project proponent shall retain Santa Rosa Rancheria Cultural Staff to provide a pre-construction and pre-decommissioning Cultural Sensitivity Training to construction staff 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. e) Stop Work Near any Discovered Cultural Resources: The project proponent shall retain a professional archaeologist on an "on-call" basis during ground disturbing construction and decommissioning for the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. Contact information for the on-call archaeologist shall be provided to the Community Development Agency prior to the issuance of building permits. 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. (*Continued on next page*.)	Responsible Party: Applicant/Contractor *Actions:* Prior to Issuance of Building Permit: 1) Provide the Santa Rosa Rancheria Tachi Yokut Tribe with the results of the archaeological record search, archaeological survey, and Sacred Lands File search through NAHC; 2) Have a Cultural Curation Agreement in place, as proved by the Santa Rosa Rancheria Tachi Yokut Tribe; 3) Place Cultural Resources Alert on project plans. 4) Provide contact information for on-call archaeologist to CDA. Prior to Construction and Decommissioning: 1) Arrange for Santa Rosa Rancheria Tachi Yokut Tribe to conduct pre-construction briefing. During Construction and Decommissioning: 1) If cultural resources discovered, establish 100-foot setback zone and contact archaeologist and Kings County CDA; (*Continued*)	Monitoring Agency: Kings County CDA. *Actions:* Prior to Issuance of Building Permit: 1) Confirm that the results of the archaeological records search, archaeological survey, and Sacred Lands File search have been provided to the Santa Rosa Rancheria Tachi Yokut Tribe; 2) Confirm that Cultural Curation Agreement with the Santa Rosa Rancheria Tachi Yokut Tribe is in place; 3) Confirm Cultural Resources Alert has been placed on project plans. 4) Confirm that contact information for on-call archaeologist has been provided to CDA. Prior to Construction and Decommissioning: 1) Verify Tribe has completed briefing prior to construction. During Construction and Decommissioning: 1) Coordinate and consult with applicant/contractor and archaeologist to ensure protection of cultural resources; (*Continued*)	

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.5 CULTURAL RESOURCES (CONT'D)			
(*Continued from preceding page*.) f. Mitigation for Discovered Cultural Resources: If the professional archaeologist determines that any cultural resources exposed during construction or decommissioning constitute a historical resource and/or unique archaeological resource, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommended mitigation measures to mitigate the impact to a less-than-significant level. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery, among other options. Treatment of any significant cultural resources shall be undertaken with the approval of the Kings County CDA. 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. The resources shall be photo-documented and collected by the archaeologist for submittal to the Santa Rosa Rancheria's Cultural and Historical Preservation Department. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources, and which confirms that the treatment of the resources is in accordance with the Curation Agreement. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken. g. 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. h. Disposition of Cultural Resources: Upon coordination with the Kings County Community Development Agency, any prehistoric 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.	2) Coordinate and consult with Kings County CDA, archaeologist, and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate mitigation; 3) Coordinate and consult with Santa Rosa Rancheria Tachi Yokut Tribe regarding monitoring during construction and decommissioning; 4) Coordinate and consult with Kings County CDA and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate disposition of any cultural resources recovered from the site, in accordance with the Curation Agreement.	2) Coordinate and consult with applicant, archaeologist, and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate mitigation; 3) Verify applicant has coordinated with Santa Rosa Rancheria Tachi Yokut Tribe regarding monitoring during construction and decommissioning; 4) Coordinate and consult with applicant and Santa Rosa Rancheria Tachi Yokut Tribe regarding appropriate disposition of any cultural resources recovered from the site, in accordance with the Curation Agreement.	

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.5 CULTURAL RESOURCES (CONT'D)			
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 and decommissioning of the Daylight Legacy Solar Project: a) Burial Treatment Plan: Prior to the issuance of the first building permit for the project, The project proponent and the Santa Rosa Rancheria Tachi Yokut Tribe, 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 Burial Treatment Plan shall address the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. b) 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 within 25 feet of the discovery and the Kings County Coroner shall be notified immediately and the resource shall be protected in compliance with applicable state and federal laws. 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) pursuant to Public Resources Code Section 5097.98. The project proponent and MLD, with the assistance of the archaeologist, shall make all reasonable efforts to ensure the treatment of human remains and associated or unassociated funerary objects with appropriate dignity, in accordance with the agreed upon Burial Treatment Plan (CEQA Guidelines Sec. 15064.5(d)). 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." c) Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, the Santa Rosa Rancheria Tachi Yokut Tribe, the Kings County Community Development Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center.	Responsible Party: Applicant/Contractor *Actions:* During Construction and Decommissioning: 1) If human remains are discovered, engage project archaeologist and coordinate and consult with Kings County CDA and the Santa Rosa Rancheria Tachi Yokut Tribe in implementing the Burial Treatment Plan and all legally required actions.	Monitoring Agency: Kings County CDA. *Actions:* During Construction and Decommissioning: 1) If human remains are discovered, coordinate and consult with applicant, archaeologist and the Santa Rosa Rancheria Tachi Yokut Tribe to ensure that Burial Treatment Plan and all legally required actions are implemented.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.7 GEOLOGY AND SOILS			
Mitigation Measure GEO-1: Expansive Soils within Daylight Legacy Solar Project Site. Prior to the issuance of the first building permit for the Daylight Legacy Solar Project, the applicant shall retain a qualified registered civil engineer to prepare a preliminary soils report, based on soil borings or excavations, to determine the potential for soils expansion and to prepare recommendations for corrective actions to mitigate potential damage to project structures due to potential soils expansion. The preliminary soils report shall be submitted to Kings County Community Development Agency Building Division for review and approval. The potential damage from soils expansion can be reduced by one or more of several alternative engineering measures, as recommended by the registered civil engineer. These measures could include: overexcavation and replacement with non-expansive soils; extending foundations below the zone of shrink and swell; chemically treating the soils with quicklime or cement; or foundation design measures. The corrective measures specified would become conditions of Building Permit approval and would be subject to inspection and approval by the Kings County Building Official.	Responsible Party: Applicant/Contractor *Actions:* Prior to Issuance of Building Permit: 1) Authorize engineer to prepare soils report; 2) Submit soils report to Kings County CDA for review and approval. During Construction: 1) Implement soils engineering measures recommended in soils report.	Monitoring Agency: Kings County CDA. *Actions:* Prior to Issuance of Building Permit: 1) Review and approve soils report as appropriate. During Construction: 1) Conduct field inspections to verify implementation of soils engineering measures.	
Mitigation Measure GEO-2: 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 Daylight Legacy Solar Project: a. If paleontological resources are discovered during excavation activities at the project site, work within 100 feet of the find shall cease, and a qualified professional paleontologist shall be retained to evaluate the significance of the resources and make recommendations regarding the treatment, recovery, curation of the resources, as appropriate. Treatment of any significant paleontological resources shall be undertaken with the approval of the Kings County CDA.	Responsible Party: Applicant/Contractor *Actions:* During Construction: 1) If paleontological resources discovered, establish 100-foot setback zone, retain paleontologist to make recommendations regarding treatment, and notify Kings County CDA; 2) Submit treatment recommendations to Kings County CDA for approval as appropriate; 3) Implement approved treatment measures.	Monitoring Agency: Kings County CDA. *Actions:* During Construction: 1) If paleontological resources discovered, verify establishment of 100-foot setback zone pending approval of treatment plan; 2) Review and approve treatment recommendations as appropriate; 3) Verify implementation of treatment measures as approved.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.9 HAZARDS AND HAZARDOUS MATERIALS			
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 Daylight Legacy Solar Project would ensure that minor spills or releases of hazardous materials would not pose a significant risk to the public or the environment.	Responsible Party: Applicant/Contractor/Operator *Actions:* Prior to Issuance of Building Permit: 1) Authorize qualified engineer to prepare SWPPP; and submit to Kings County CDA. 2) File a Notice of Intent (NOI) to State Water Resources Control Board. During Construction: 1) Implement SWPPP. Prior to Project Operation: 1) Prepare HMBP and submit to Kings County Public Health Department. During Project Operation: 1) Implement HMBP.	Monitoring Agencies: Kings County CDA and Kings County Public Health Department. *Actions:* Prior to Issuance of Building Permit: 1) Verify receipt of SWPPP (CDA). During Construction: 1) Verify implementation of SWPPP (CDA). Prior to Project Operation: 1) Verify receipt of HMBP (Public Health). During Project Operation: 1) Verify implementation of HMBP.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.9 HAZARDS AND HAZARDOUS MATERIALS (CONT'D)			
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	Responsible Party: Applicant/Contractor *Actions:* Prior to Construction: 1) Prepare Dust Control Plan and submit to SJVAPCD and Kings County CDA for approval. During Construction: 1) Implement Dust Control Plan; 2) Provide workers with respirators as recommended.	Monitoring Agency: Kings County CDA. *Actions:* Prior to Construction: 1) Review and approve Dust Control Plan. During Construction: 1) Verify implementation of Dust Control Plan and distribution of respirators.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.10 HYDROLOGY AND WATER QUALITY			
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 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.	Responsible Party: Applicant/Contractor/Operator *Actions:* Prior to Construction: 1) File NOI with SWRCB; 2) Authorize qualified engineer to prepare SWPPP. During Construction: 1) Implement SWPPP. During Operation: 1) Implement post-construction elements of SWPPP. During Decommissioning: 1) Implement SWPPP.	Monitoring Agencies: Kings County CDA and Public Works Department. *Actions:* Prior to Construction: 1) Verify filing of NOI. 2) Verify preparation of SWPPP. During Construction: 1) Verify implementation of SWPPP. During Operation: 1) Verify implementation of post-construction elements of SWPPP. During Decommissioning: 1) Verify implementation of SWPPP.	

MITIGATION MONITORING AND REPORTING PROGRAM

Daylight Legacy Solar Project CUP No. 23-03

Mitigation Measure	Responsible Party/ Timing/Action	Monitoring Agency/ Timing/Action	Verification Log
4.17 TRANSPORTATION			
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.	Responsible Party: Applicant/Contractor *Actions:* Prior to Issuance of Encroachment Permits: 1) Consult with Kings County Public Works Department regarding appropriate traffic safety measures. During Construction: 1) Implement traffic safety measures as approved by Public Works Department. During Decommissioning: 1) Implement traffic safety measures as approved by Public Works Department.	Monitoring Agencies: Kings County CDA, Public Works Department, and Fire Department. *Actions:* Prior to Issuance of Encroachment Permits: 1) Coordinate with Applicant/Civil/Contractor regarding appropriate traffic safety measures. During Construction: 1) Verify implementation of traffic safety measures. During Decommissioning: 1) Verify implementation of traffic safety measures.	