APPENDIX A
NOTICE OF PREPARATION

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

County of Fresno
Notice of Preparation (NOP)
of an Environmental Impact Report (EIR No. 7257) on the Fifth Standard Solar Project Complex (Unclassified Conditional Use Permit Nos. CUP 3562, 3563, and 3564)

Date: September 15, 2017

To: State Clearinghouse and Interested Parties

From: Fresno County Department of Public Works and Planning
Development Services Division
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Fifth Standard Solar Project Complex (UCUP Nos. 3562, 3563 and 3564; EIR No. 7257)

The County of Fresno will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below.

Project Summary: EC&R Solar Development, LLC (the Applicant) has submitted to The County of Fresno (County) three Unclassified Conditional Use Permit (CUP) Applications (CUP 3562, 3563, and 3564) to allow the construction and operation of a 150 megawatt (MW) solar photovoltaic (PV) generation facility, a 20 MW solar PV generation facility, and a 20 MW energy storage facility. The Project site is located on twelve (12) parcels totaling 1,593.52 acres, generally located west of South Lassen Avenue (SR-269), north of West Jayne Avenue, east of South Lake Avenue, and west of West Gale Avenue, approximately three miles south of the nearest city limits of the community of Huron. The County has determined that a project-level Environmental Impact Report (EIR) will be prepared. The County is soliciting comments from reviewing agencies and the public regarding the scope and content of the environmental information. For reviewing agencies, Fresno County requests comments that are germane to your agency's statutory responsibility as related to the Project. Your agency may need to use the EIR when considering relevant permits or other approvals for the Project. The County is also seeking the views of residents, property owners, and concerned citizens regarding issues that should be addressed in the EIR.

The Applicant's Project Description and site plan, as well as a location map, are available for review at the following locations:

Fresno County Public Works and Planning Department, 2220 Tulare Street, Fresno, CA 93721

Fresno County website:
http://www.co.fresno.ca.us/DepartmentPage.aspx?id=74079

COMMENT PERIOD: Comments may be sent anytime during the 30-day NOP review period. The NOP review and comment period begins **September 15, 2017**, and ends **October 16, 2017**, at **5:00 p.m.** All comments must be received within the comment period. Please include the name of a contact person for your agency, if applicable. All comments should be directed to:

Fresno County Department of Public Works and Planning
Attention: Christina Monfette
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Comments may also be emailed to cmonfette@co.fresno.ca.us

LEAD AGENCY: The County of Fresno Department of Public Works and Planning, Development Services Division

SCOPING MEETING: Oral comments may be provided at the Scoping Meeting to be held on:

Date: Wednesday, September 27, 2017
Time: 6:00 p.m. to 8:00 p.m.
Place: Keenan Community Center, located at 17094 Myrtle St, Huron, CA 93234.

The Project Description can be viewed on the Fresno County website:
http://www.co.fresno.ca.us/viewdocument.aspx?id=74079

Fifth Standard Solar Project Complex

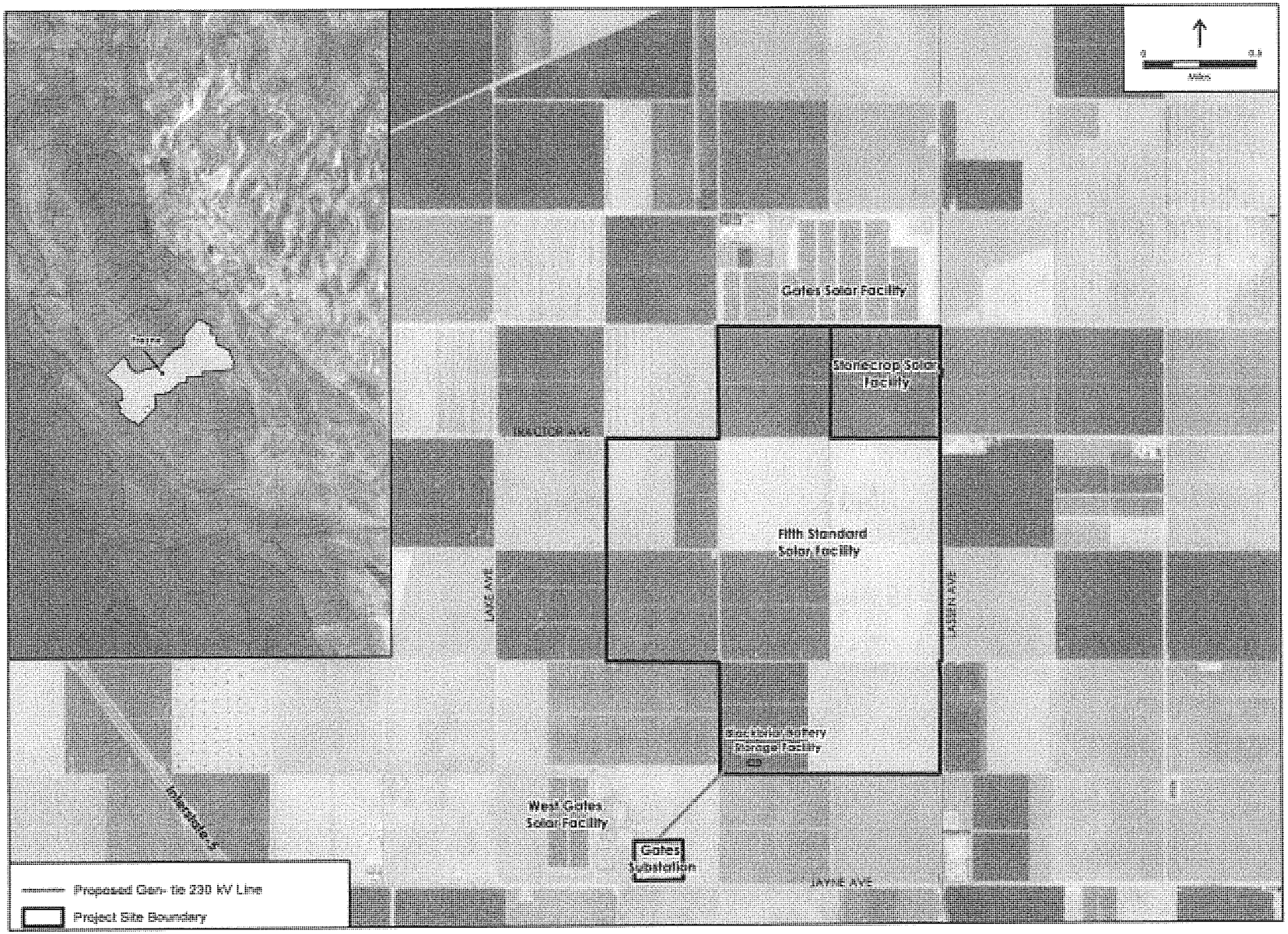
1.1 - PROJECT LOCATION

The Project site is located in unincorporated Fresno County, approximately 2 miles east of Interstate 5 (I-5), and approximately 13 miles east of Coalinga. The Project site location is shown in Figure 1. Lassen Avenue (California State Route 269) borders the eastern side of the property and is the only paved road in the immediate vicinity of the Project site. The Fifth Standard Solar Project Complex (Project), as defined for the purposed of CEQA analysis, would consist of an approximately 1,594-acre solar power and stored energy facility comprised of three individual facilities co-located on the Project site. The Project site would be located on a portion of twelve parcels identified as Fresno County Assessor's Parcel Numbers [APNs] 075-060-15S, 075-060-52S, 075-070-01S, 075-070-32S, 075-070-34S, 075-130-10S, 075-130-12S, 075-130-54S, 075-130-59S, 075-130-60S, 075-070-35S, 075-070-33S). The Project site includes the southern half of Section 22, the eastern half of Section 28, all of Section 27, and the northern half of Section 34, all located in Township 20 South, Range 17 East, Mount Diablo Base and Meridian (MDBM) in the unincorporated area of the County of Fresno.

1.2 - EXISTING CONDITIONS

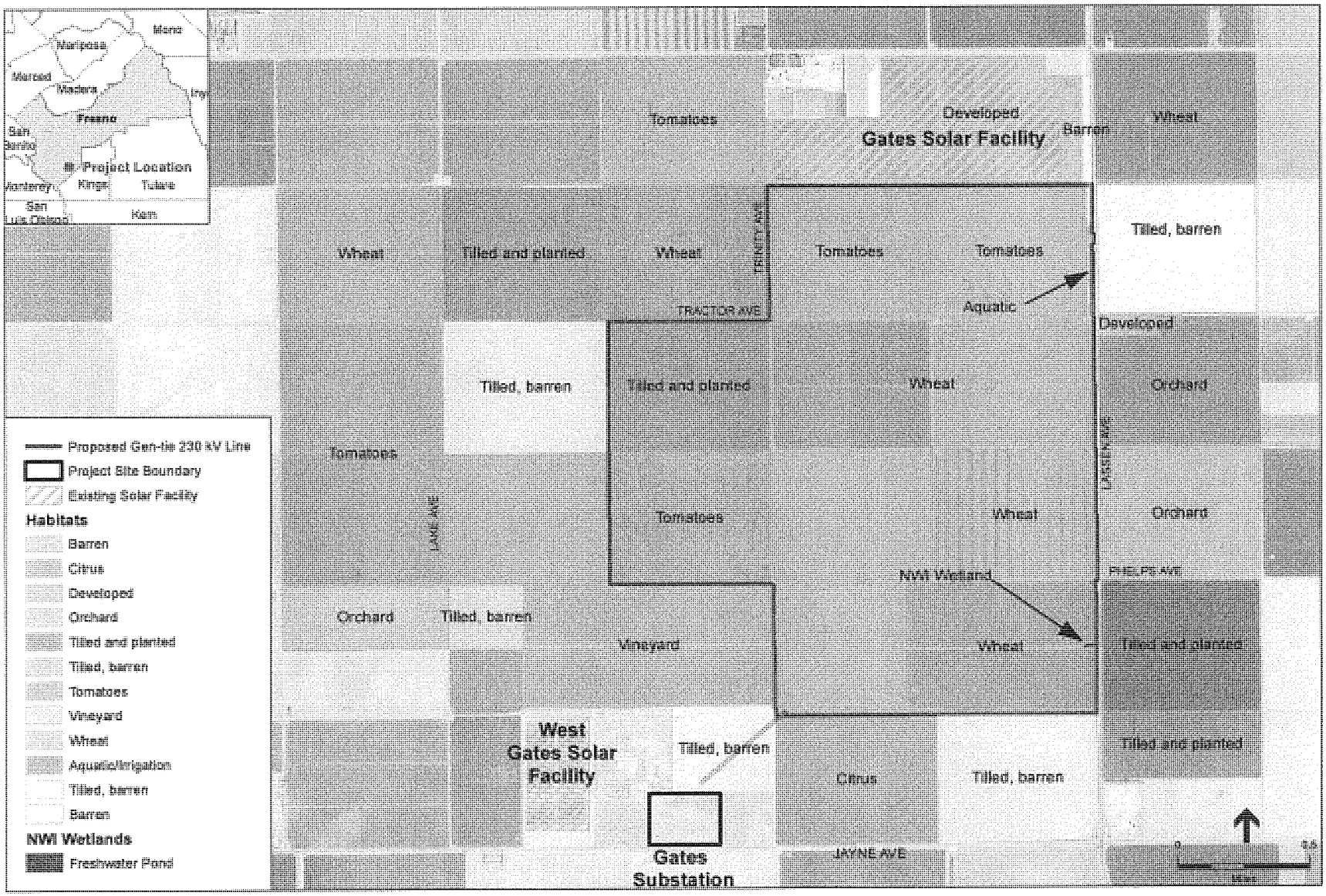
Land use within the Project site currently consists of actively farmed row crops, including tomatoes and wheat (see Figure 2, Project Site Land Use). Since 2009, an average of approximately 420 acres per year of the available 1,594 acres at the Project site has been fallow or planted with wheat (a non-irrigated, low-value crop) due to constraints, including inadequate surface and groundwater supply, poor groundwater quality and limited irrigation infrastructure (Environmental Science Associates (ESA), 2016a). Figure 3 provides representative photographs of the Project site. Irrigation lines and access roads also occur on the Project site. Several power lines border and cross the Project site, including high-voltage transmission lines. The existing land use of the Project site is predominantly dry-farmed agriculture. With the exception of a 1.25-acre parcel located in the interior of the Project site, the entire Project site is under Williamson Act Contracts, all of which are currently being petitioned for cancellation by the Applicant and landowner.

The Project site is included in the area covered by the Fresno County General Plan (County of Fresno, 2000a). The entire Project site is zoned AE-20, or "Exclusive Agricultural," as designated by the Fresno County Zoning Ordinance (County of



SOURCE: ESRI

Fifth Standard Solar Project Complex 120251
Figure 1
Project Location



SOURCE: EC&R Solar Development, LLC, 2016 ; NWI, 2016; ESA

Fifth Standard Solar Project Complex. 120251

Figure 2

Project Site Land Use



3a - View of Project Site from the East



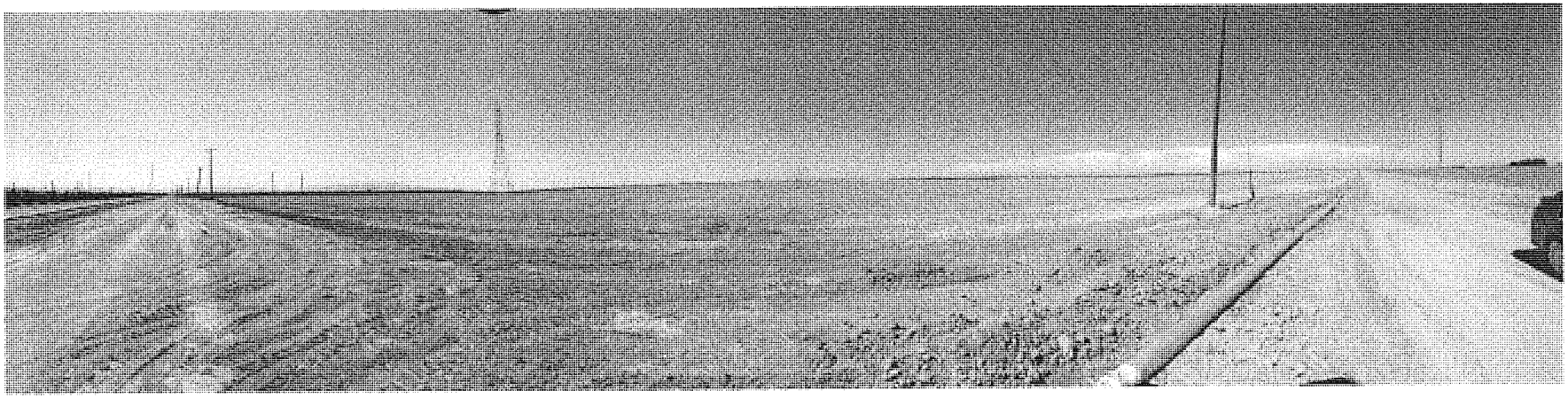
3b - View of Project Site from the North

SOURCE: EC&R Solar Development, LLC

Fifth Standard Solar Project Complex . 120251

Figure 3

Site Photos



3c - View of Project Site from the South



3d - View of Project Site from the West

SOURCE: EC&R Solar Development, LLC

Fifth Standard Solar Project Complex . 120251

Figure 3 (continued)
Site Photos

Fresno, 2000b). All parcels upon which construction is proposed fall under Williamson Act contracts, and the entire Project site has a designation of "P," or "Prime Farmland," as provided by the California Farmland Mapping and Monitoring Program (FMMP, 2014) (see Figure 4: Williamson Act Contracted Land in the Project Area). Surrounding land uses include farmland, the Pacific Gas and Electric Company's (PG&E's) Gates Substation and two nearby solar generating facilities (Gates Solar and West Gates Solar).

The Gates Substation is located 0.4 mile southwest of the Project site. The existing West Gates Solar facility is adjacent to the Gates Substation, 0.5 mile southeast of the Project site. The Gates Solar facility is located to the north and immediately adjacent to the Project site. Interstate 5 is located approximately 2 miles west of the Project site. The Pleasant Valley Ecological Reserve is located across I-5, 6 miles west of the Project site (CDFW, 2016). New Coalinga Municipal Airport is located approximately 9 miles to the west of the Project site.

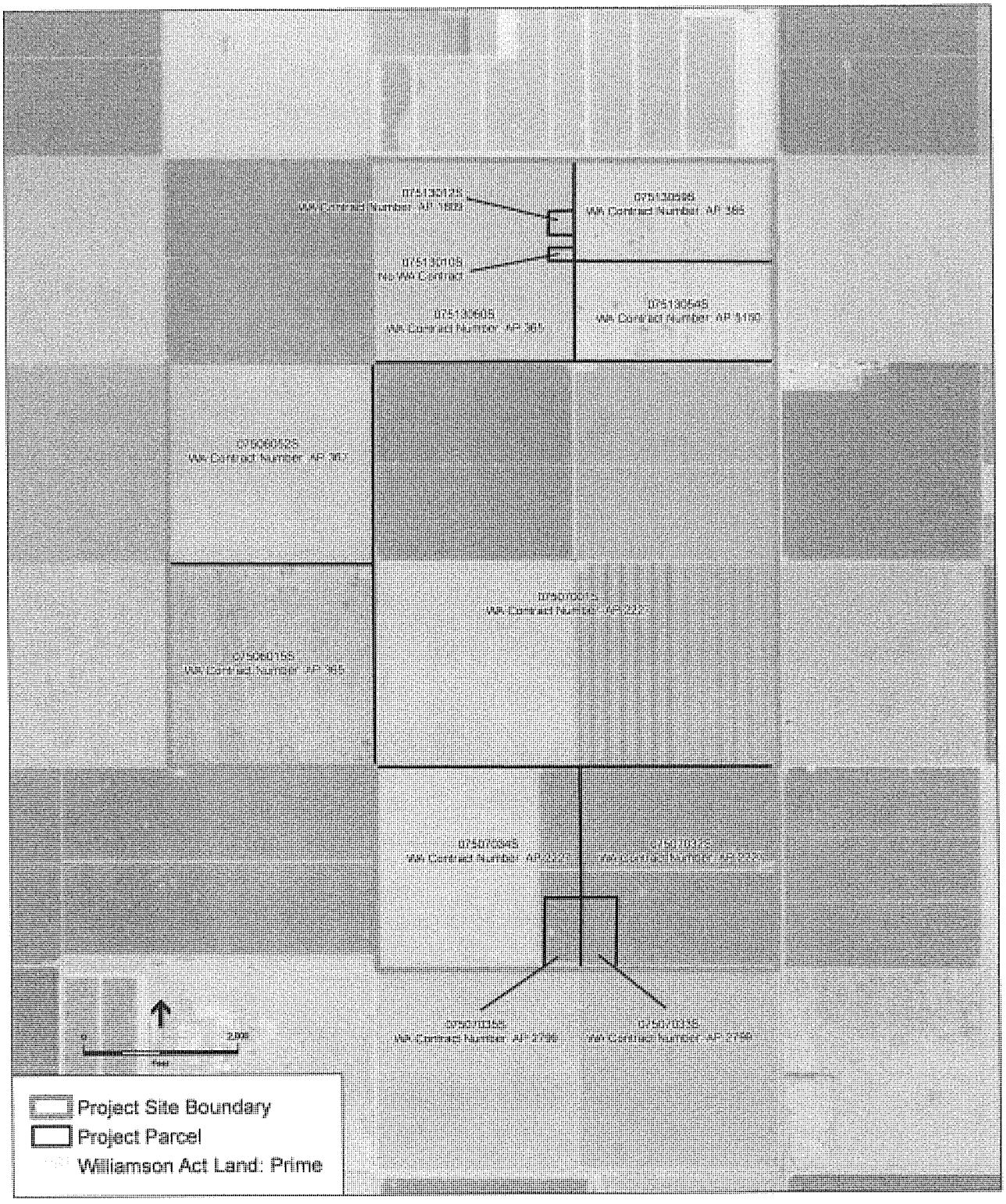
1.3 - PROPOSED PROJECT DESCRIPTION

The Project Applicant is requesting three Unclassified Conditional Use Permits (CUP) to construct, operate, maintain, and decommission photovoltaic (PV) electricity generating facilities and associated infrastructure. This facility would generate a total of up-to 190-megawatts (MW) alternating current (AC) at the Point of Interconnection on approximately 1,594 acres in unincorporated Fresno County. The Project would provide solar power and stored energy to utility customers via an interconnection at PG&E's adjacent Gates Substation.

The Project would operate year-round to generate electricity from the PV facilities during daylight hours and dispatch additional electricity during either daylight or non-daylight hours, depending on the application of the energy storage portion of the Project. Construction of a new gen-tie line would be necessary to interconnect the Project to the electrical grid.

The Fifth Standard Solar Project Complex, under CEQA, would comprise three separate components, which are summarized here and described below (see Figure 5: Plot Plan):

- Fifth Standard Solar Facility (Fifth Standard): a 150 MW PV solar energy generation facility that is anticipated to require up to 1,400 acres of the Project site.
- Stonecrop Solar Facility (Stonecrop): a 20 MW PV solar energy generation facility that would be located adjacent to Fifth Standard and would require less than 200 acres of the Project site.

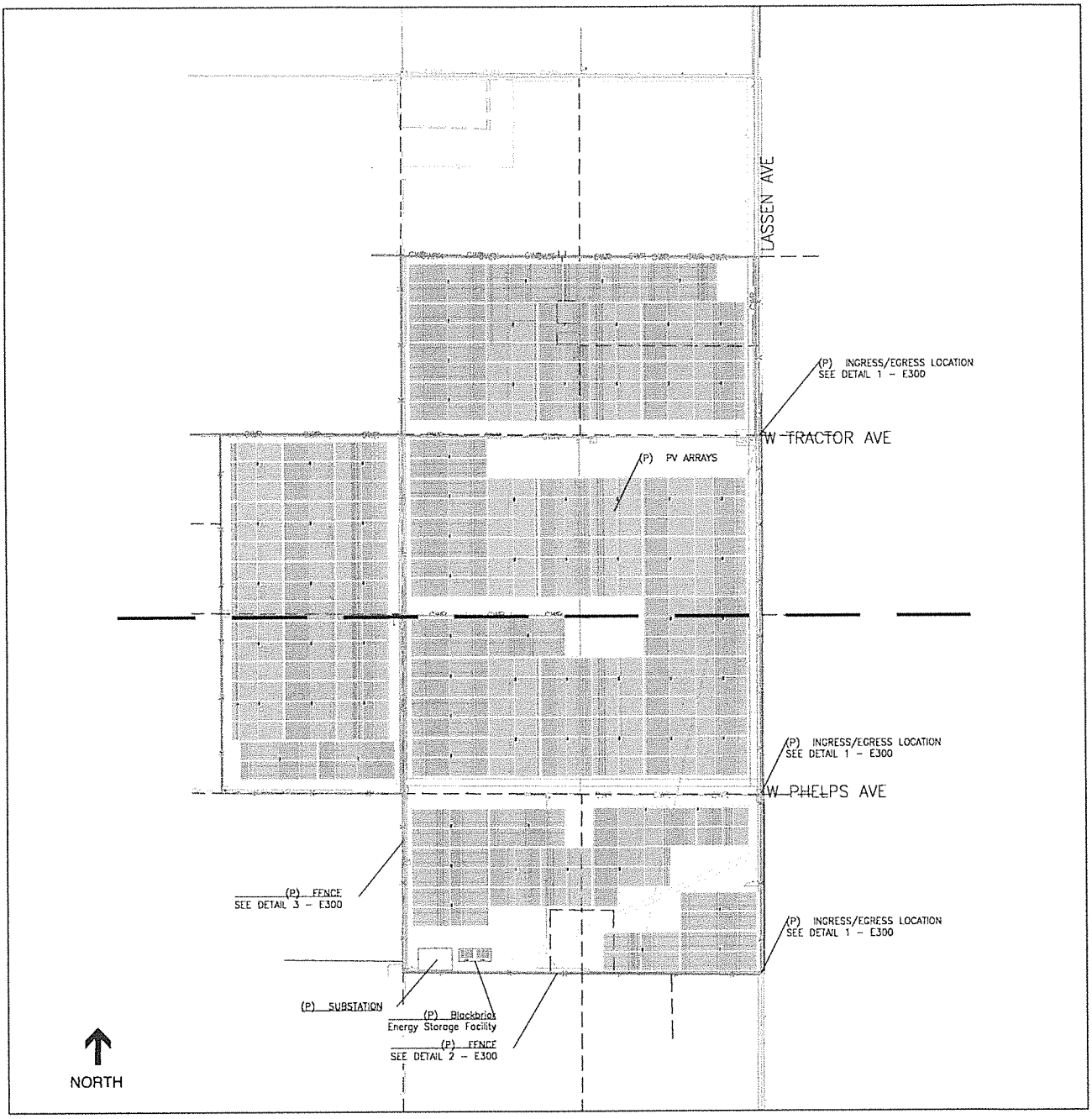


SOURCE: EC&R Solar Development, LLC, 2016; CDC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 4

Williamson Act Contracted Land In the Project Area

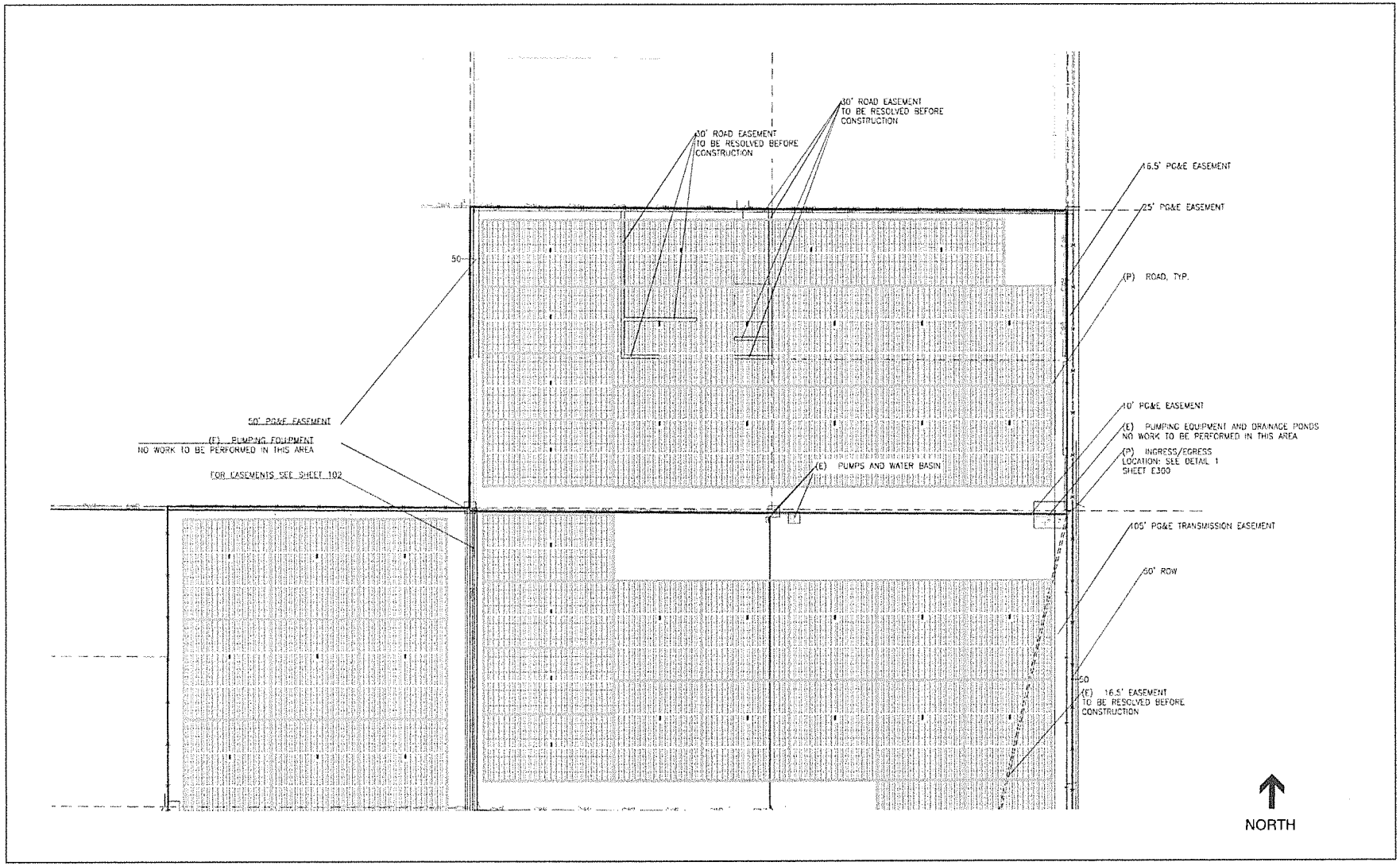


Fifth Standard Solar Project Complex . 120251

SOURCE: EC&R Solar Development, LLC

Figure 5

Plot Plan – Entire Site

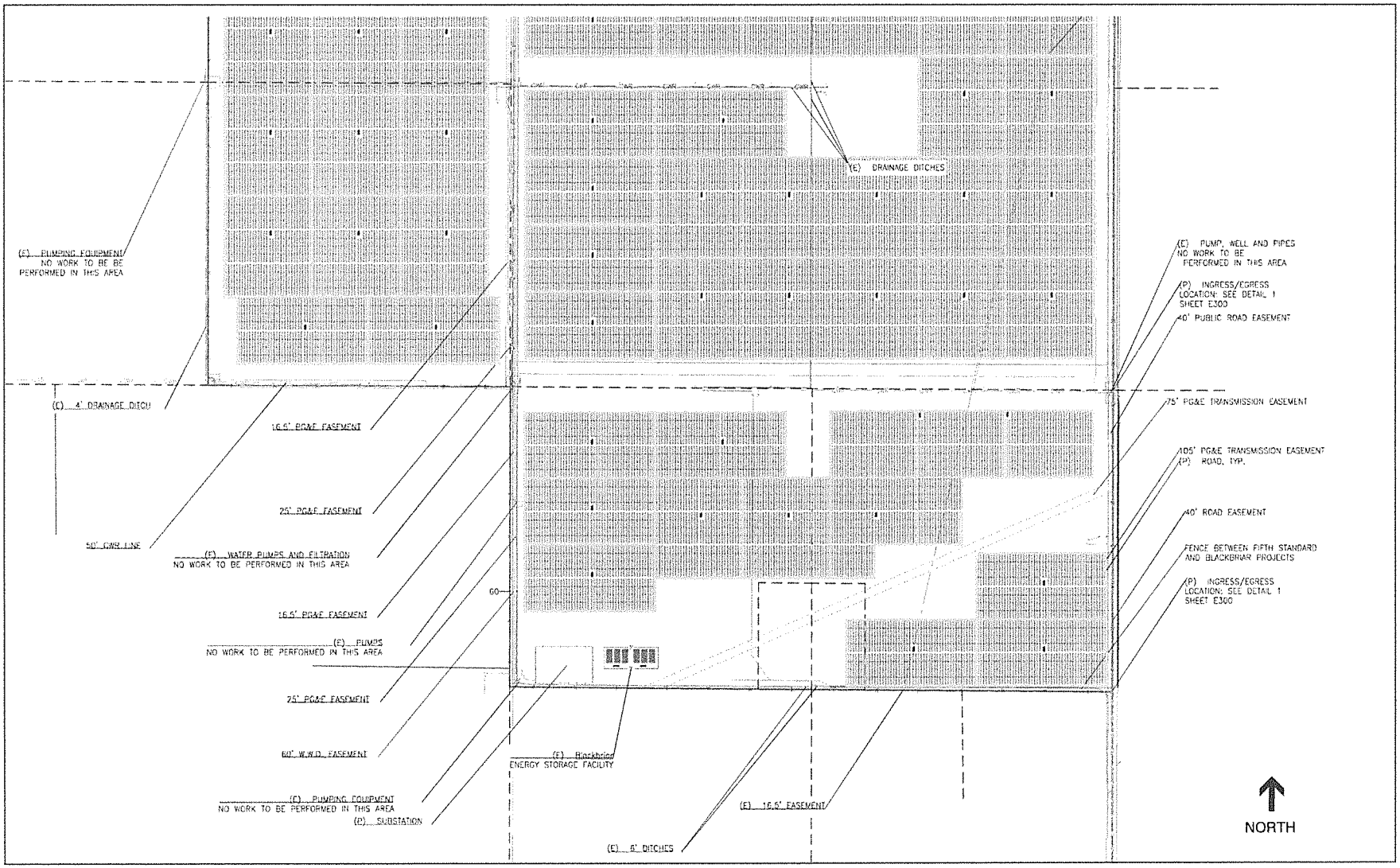


SOURCE: EC&R Solar Development, LLC

Fifth Standard Solar Project Complex . 120251

Figure 5 (continued)

Plot Plan - Northern Half of Site at Larger Scale



SOURCE: EC&R Solar Development, LLC

Fifth Standard Solar Project Complex . 120251

Figure 5 (continued)

Plot Plan - Southern Half of Site at Larger Scale

- Blackbriar Battery Storage Facility (Blackbriar): a 20 MW battery storage facility that would be located adjacent to Fifth Standard and Stonecrop, and would utilize less than 5 acres of the Project site.

The Project would also include a single onsite substation, located in the southwest corner of the Project site to provide the Project's interconnection with the local transmission grid.

The solar modules at the Project site would operate during daylight hours seven days per week, 365 days per year. The storage facility could operate at any hour, but would typically operate no more than 4 hours at a time. The anticipated life of the Project would be 35 years.

Construction of the Project facilities would occur over 11 to 12 consecutive months, with an expected start in early 2019 and an anticipated completion by the end of December 2019. Within this timeframe, construction of the three individual facilities would occur according to the following schedule:

- February 2019 – June 2019: Blackbriar
- April 2019 – December 2019: Fifth Standard
- August 2019 – December 2019: Stonecrop

1.3.1 Solar Facility – Photovoltaic Panels

The Solar Facility would primarily consist of PV module arrays that would generate electricity directly from sunlight. Each module, or solar panel, could measure from 44 inches to 75 inches tall and from 22 inches to 44 inches wide, depending upon final module selection. Modules would be placed on racking systems and arranged in rows. The ultimate configuration of modules and rows would depend on the final technology selected, as explained below. Electricity generated at the arrays would be collected and delivered to the Project substation.

The total number of modules or panels would depend on the technology selected, an optimized layout, and a detailed design that takes landscape features, drainage considerations, and maintenance access into account. Thin-film PV module technology or crystalline silicon PV module technology, or both, may be incorporated into the Project. Solar thermal technology is not being considered.

Although selection of the module has not been finalized, the general characteristics of the PV modules are that they would be covered with dark, high-light-absorbing, low-reflective glass, and would be mounted on a corrosion-resistant metal racking system. Panel mounting systems that may be installed include either fixed-tilt or tracking technology, depending on the PV panels ultimately selected. Multiple types of panels and racking systems may be installed

across the Project site.

Panels would be arranged on the Project site in solar arrays. For single-axis tracking systems, the length of each row of panels could be up to 350 feet along the north/south axis. For fixed-tilt systems, a row consists of multiple tables (4 panels high by 10 panels wide, depending on design), each table approximately 65 feet along the east/west axis, with 1-foot spacing between each table. Spacing between each row would be a minimum of 4 feet. The solar panel array would generate electricity directly from sunlight, collect it to a single point at the Project substation, and interconnect it to PG&E's transmission system.

Per Fresno County policy and in adherence to the County's Solar Guidelines, the solar panels would be setback a minimum of 50 feet from the property line and neighboring agricultural operations.

1.3.2 Solar Facility – Modular Power Block, Cabling and Connections

The solar panel array would contain individual modular power blocks. Individual PV panels and rows would be electrically connected together in series to carry direct current (DC) electricity. Either central inverters or string inverters would be used to change the DC output to AC electricity.

If central inverters are used, multiple DC strings would be wired into an aboveground combiner box to merge the strings into a single high-current cable. From the combiner boxes, the cabling would be installed above ground in cable trays and underground approximately 3 feet deep to inverters mounted on small concrete pads distributed across the Project site. The inverters would change the DC output from the combiner boxes to AC electricity. Next, the AC electricity for the modular power block would be increased to medium voltage with a standard "step-up" transformer. The medium voltage cabling would create multiple collection circuits that would carry the electricity from the modular power blocks to the Project substation. The medium voltage collection circuits would be installed underground or on overhead poles to the substation.

The DC cable system would be laid in above-ground metal trays measuring approximately 6 inches by 6 inches running the length of the tracker rows. DC cables would exit the arrays and run in underground trenches from the arrays to inverter skids and a step-up transformer. The inverter skids would be sized and spaced according to final design and engineering requirements, with a typical skid including two to four inverters to serve up to 4 MW. The Project would use 100 to 200 inverters. The skids would be placed on concrete pad foundations. The top of the equipment would be approximately 10 feet above the ground. There would be one such skid and foundation for each modular power block.

Alternatively, smaller strings inverters may be used in lieu of the larger, central inverters. With string inverters, four to eight DC strings would be wired into an inverter, with each inverter converting the DC power to AC power. The DC circuits would be routed to the inverters via above ground cable trays or buried in trenches. String inverters would be located on above-grade metallic racks between rows. Four to 12 string inverters would be clustered together with an AC combiner panel that would combine the AC currents into one set of conductors and then feed into a transformer, where the circuit would be "stepped-up" to medium voltage. These medium voltage circuits would each travel to the Project substation through underground trenches at depths greater than 40 inches. All the medium voltage circuits would be combined and monitored at the Project substation.

1.3.3 Solar Facility – Tracker Unit

Each modular power block is typically comprised of individual tracker units. The tracker units would contain the rows of solar PV panels running in the north-south direction. The tracker units would rotate the rows of solar PV panels from east to west throughout the day, following the sun to maximize exposure to sunlight and electrical output. The tracker units would include seven major components, described below:

- Drive Unit. Multiple rows may be rotated with a single drive unit, or each row may be provided with its own drive. In the first scenario, multiple rows of solar PV panels would be linked by a steel drive strut, which would be oriented perpendicular to the axis of rotation. Each row would be connected to the drive strut by a torque arm, which acts as a lever, enabling the drive strut to rotate the rows together as the drive unit moves the drive strut forward and backward. The drive unit typically is mounted at the first row in a tracker unit, and consists of a bi-directional AC motor that rotates the drive strut. The drive unit would be connected to an industrial-grade variable-frequency drive that translates commands from the control computer into AC voltage that applies power to the motor, and to the drive strut and the rows.
- In the other tracking system, a motor would be mounted in the middle of each row, and there would be no drive components spanning multiple rows.
- Tracker Controller. The tracker controller is a self-contained industrial-grade control computer that would incorporate all of the software needed to operate the system. The controller would include a liquid crystal display (LCD) monitor that displays a combination of calibration parameters and status values, providing field personnel with a user-friendly configuration and

diagnostic interface. The LCD would enable field adjustment, calibration, and testing.

- PV Panels. The system would incorporate commercially available Underwriters Laboratory (UL)-listed solar PV panels, as described above. Due to the limited rotation angles and generally flat topography in the area surrounding the Project site, the solar PV panels have no potential for reflecting the sun's rays upon any ground-based observer offsite. These panels would be protected from impact by tempered glass and would have factory applied ultraviolet- and weather-resistant "quick connect" wire connectors.
- Steel Tracking Structure. The steel tracking structure would be able to withstand high-wind conditions, site-specific wind gust and aerodynamic pressure effects, and seismic events, as required by applicable codes. More information about the steel tracking system is described above. Tracking arrays would be oriented along a north-south axis with panels tracking east to west to follow the movement of the sun. Fixed-tilt arrays would be oriented along an east-west axis with panels facing generally south. The total height of the panel system measured from ground surface would be up to 12 feet.
- DC-AC Inverter. The inverter would change the electrical current from DC, which is produced in the solar cells, to AC, which is delivered to the transmission system.
- Combiner Boxes. Combiner boxes would merge the DC module wiring into a single high-current cable.
- Data Acquisition System. Integrated with the inverter, this system is made up of multiple components including a data logger and sensors to record AC power output. Other integrated components include equipment to record weather conditions, including ambient temperature measured in degrees Celsius (°C), incoming solar radiation measured in watts per square meter (W/m2), and wind speed measured in meters per second (m/s). The Data Acquisition System enables system data transfer and performance monitoring, either locally or remotely.

1.3.4 Onsite Substation

The Project would include a single onsite substation, located in the southwest corner of the Project site. The substation dimensions would be approximately 500 feet by 320 feet. The substation would collect the medium voltage circuits that carry power from the Fifth Standard, Stonecrop, and Blackbriar facilities and would contain metering equipment, switchgear, a series of fuses and circuit breakers that act as protective relays, as well as a transformer to step-up the voltage to match

the voltage of the local transmission grid).

1.3.5 Electrical Interconnection

The Project would require the construction of a new 230-kV overhead gen-tie line, which would extend from the Project substation at the southwestern corner of the Project site for a distance of approximately 1,800 feet, or 0.3 mile, to the Gates Substation. The Project gen-tie would be designed to pass from the Project site to PG&E property at a shared, common boundary, eliminating the need for easements or rights-of-way from other landowners.

To build the power line, PG&E would install approximately six tubular steel poles (TSPs) approximately 135 feet tall. To accommodate the new power line, PG&E may also need to relocate and replace approximately three distribution poles and underground distribution power lines.

1.3.6 Telecommunications

The Project would be designed to employ a Supervisory Control and Data Acquisition (SCADA) system. The SCADA would allow remote monitoring of the Project's operation, as well as remote operations of its critical control components. Access to the Project's SCADA system would be accomplished with wireless and/or hard-wired connections to locally available commercial service providers, i.e., a Local Exchange Carrier.

1.3.7 Meteorological Data Collection System

The Project would include a meteorological data collection system (weather station). Various sensors at the station would measure three different types of solar radiation, wind speed, wind direction, temperature, humidity, and precipitation. Data from each sensor would be collected by the station's data-logger, as well as transmitted to the Project's SCADA system for monitoring and reporting purposes.

A mobile weather station mounted on a small, flatbed trailer has been installed during the Project development phase. This mobile version of the station would be replaced by a permanent, ground-mounted version during Project construction.

1.3.8 Energy Storage Facility

Storage systems can assist grid operators in more effectively integrating intermittent renewable resources into the statewide grid and can assist utilities in their efforts to meet energy storage goals mandated by the California Public Utilities Commission. A 20 MW energy storage facility with a four-hour discharge duration would be constructed on the Project site. The storage system would consist of battery banks housed in enclosures or a building, bi-directional inverters, step-up transformers,

and balance of plant. The system would be located near the Project substation. Enclosures measuring 40 feet by 8 feet by 8.5 feet high would be installed on concrete pads, utilizing up to 5 acres of the Project site. Sixty to 70 enclosures are expected to be required, although more or less may be used, depending on the final technology selected. HVAC systems are required and would be located within the enclosures. Alternatively, one to two buildings (rather than multiple, smaller containers) could be installed to house all of the energy storage components. To guarantee the highest safety standard, containers would be equipped with fire suppression systems, fire/smoke detectors, and emergency stops. The Project could use any commercially available battery technology, including but not limited to lithium ion, sodium sulfur, sodium hydride or nickel hydride.

1.4 - AREAS OF POTENTIAL IMPACT

The County has determined that an EIR is required for this Project. Therefore, as allowed under Section 15063(a) of the CEQA Guidelines, the County has not prepared an Initial Study and will instead begin working directly on the EIR, as allowed under CEQA Guidelines Section 15081. The EIR will focus on the potentially significant and significant effects of the Project and will document the reasons for concluding that other effects will be less than significant. The topics listed below will be further analyzed in the EIR. However, certain criteria within the topics listed below have been scoped out of further analysis, as detailed in the next section.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Public Services
- Transportation and Traffic
- Tribal Cultural Resources
- Utility and Service Systems

1.5 - EFFECTS FOUND NOT TO BE SIGNIFICANT

Based on the Project site or Project characteristics, it is not anticipated that impacts will occur within the following environmental topic areas. Therefore, these specific environmental impact criteria will be scoped out and included in the Effects Found Not Be Significant section of the EIR. A brief description of why each topic or impact area was found not to be significant, and therefore scoped out, is provided below.

Agricultural and Forestry Resources

- **II. c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?** The Project site is not zoned as forest land, timberland, or timberland production and does not meet the requirements of a timberland zone as defined by Public Resource Code section 4526. Therefore, no potential impacts associated with rezoning or causing rezoning of forest land or timberland would occur.

- **II. d) Result in the loss of forest land or conversion of forest land to non-forest use?** The Project site is currently used for agricultural purposes and does not contain forest land or forest land uses. Therefore, no potential impacts associated with the loss or conversion of forest land would occur.

Air Quality

- **III. e) Create objectionable odors affecting a substantial number of people?** Operation of the Project would not create objectionable odors. However, construction and decommissioning of the Project would include fuels and other odor sources, such as diesel equipment, which could result in the creation of objectionable odors. Since these activities would be temporary and spatially dispersed, and generally take place in rural areas, they would not affect a substantial number of people. Therefore, impacts from odors generated by construction and decommissioning of the Project would be less than significant.

Geology and Soils

- **VI. a) i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?** The Project site does not contain, nor is it located near, a defined Alquist-Priolo zone. The nearest zone is located more than 14 miles to the west. Therefore, the Project site is not subject to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map. No potential impacts associated with fault rupture would occur.

- **VI. e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?** The Project would not generate waste water that would need to be disposed of in a septic or sewer system. During construction and any maintenance operations, portable restroom facilities would be provided for workers. Therefore, no potential impacts with respect to waste water disposal systems would occur.

Hazards and Hazardous Materials

- **VIII. c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?** Solar facilities do not emit hazardous emissions; however, construction activities would include the use of hazardous materials such as gasoline, diesel, and solvents. Huron Elementary is the school nearest to the Project site, located approximately 2.8 miles to the north. As such, the Project is not located within one-quarter mile of an existing or proposed school. Therefore, no potential impacts associated with emission of hazardous materials or substances within one- quarter mile of an existing or proposed school would occur.

- **VIII. e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?** The Project site is not located within two miles of a public airport. The nearest public airport is the Coalinga Municipal Airport, located approximately 9.8 miles west. Therefore, no potential impacts associated with aviation noise at the Project site would occur. Therefore, no potential impacts associated with aviation safety hazards at the Project site would occur.

Hydrology and Water Quality

- **IX. g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?** The Project does not include the construction of any habitable structures, including housing. Therefore, no potential impacts associated with placing housing in a 100-year floodplain would occur.

- **IX. j) Inundation by seiche, tsunami, or mudflow?** The Project site would not be exposed to hazards associated with seiche, tsunami, or mudflow, because the Project site is not located near large bodies of water, an ocean, or a hillside. Therefore, no potential impacts associated with seiche, tsunami, or mudflow would occur.

Land Use

- **X. a) Physically divide an established community?** The Project site is located in a rural, unincorporated area of Fresno County that lacks any established community. Therefore, no potential impacts associated with the division of an established community would occur.

Noise

- **XII. e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?** The Project site is not located within two miles of a public or private airport. The nearest public airport is the Coalinga Municipal Airport, located approximately 8.6 miles west of the Project site. Therefore, no potential impacts associated with aviation noise at the Project site would occur.

- **XII. f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?** The Project site is not located within two miles of a public or private airport. The nearest private airport is the Stone Land Company Airport, located approximately 7.3 miles southeast of the Project site. Therefore, no potential impacts associated with aviation noise at the Project site would occur.

Population and Housing

- **XIII a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? and c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?** The Project site does not contain any residential uses and no residential uses are included in the Project. Therefore, the Project would not have the potential to displace people or housing. The Project would generate temporary construction jobs that would be expected to be filled by the local workforce. Therefore, the Project would not have the potential to cause substantial direct or indirect population growth, displace housing or people, or require the construction of housing elsewhere.

Public Services

- **XIV. 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 following public services:**

    - **c) Schools:** Construction and operation of the Project would not result in substantial direct or indirect population growth that would increase the school-aged population in the region and, thus, would not require the construction or expansion of school facilities. Therefore, there are no impacts associated with schools.

    - **d) Parks:** Construction and operation of the Project would not result in substantial direct or indirect population growth that would increase the use

of parks in the region and, thus, would not require the construction or expansion of recreational facilities. Therefore, there are no impacts associated with parks.

- **e) Other Public Facilities:** Construction and operation of the Project would not result in substantial direct or indirect population growth that would increase the use of other public facilities, such as libraries, in the region and, thus, would not require the construction or expansion of public facilities. Therefore, there are no impacts associated with other public facilities.

Recreation

- **XV. a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? and 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?** The Project would not result in a substantial direct or indirect population growth that would 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. Furthermore, the Project does not include the construction or expansion of recreational facilities. These conditions preclude the possibility of the Project resulting in impacts related to recreational facilities.

Transportation

- **XVI. f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?** The Project is located in a rural unincorporated area of Fresno County that is not served by public transit, bicycle, or pedestrian facilities nor does the area contain a population that would require such services. There are no bicycle or pedestrian facilities located in the vicinity of the Project area. The Project would not generate public transit users, bicyclists, or pedestrians requiring such facilities. Therefore, the Project would not have the potential to cause impacts related to public transit, bicycle, or pedestrian facilities.

Utilities and Service Systems

- **XVII. e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?** The Project's wastewater would be served by portable restroom facilities. Therefore, the Project would not have the potential to cause impacts related to wastewater treatment capacity.

1.6 SUMMARY

Information and analysis contained in the Fresno County General Plan, Zoning Code, and background technical documents, as well as other documents prepared for the Project, will be used when preparing the EIR. The EIR will also examine potential alternatives for the Project. Mitigation measures will be identified for significant impacts caused by the Project.

Date: 9/13/2017

Name and Title: Chris Motta, Principal Planner

Signature:

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2017091038

Project Title: Fifth Standard Solar Project Complex Environmental Impact Report No. 7257

Lead Agency: County of Fresno | Contact Person: Christina Monfette
Mailing Address: 2220 Tulare Street, 6th Floor | Phone: (559) 600-4245
City: Fresno | Zip: 93721 | County: Fresno

Project Location: County: Unincorporated Fresno | City/Nearest Community: Huron
Cross Streets: South Lassen Avenue and West Jayne Avenue | Zip Code: 93210
Longitude/Latitude (degrees, minutes and seconds): 36 ° 08 ' 43.52" N / 120 ° 07 ' 14.56" W | Total Acres: 1,594
Assessor's Parcel No.: 075-060-15S, 075-060-52S, 075-070 | Section: 22, 28 | Twp.: 20 S | Range: 17 E | Base: MDBM
Within 2 Miles: State Hwy #: SR-269, I-5 | Waterways: none
Airports: none | Railways: none | Schools: none

Document Type:

CEQA: ☒ NOP ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other:

Governor's Office of Planning & Research
SEP 13 2017
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other:

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☒ Power: Type Photovoltaic Solar MW 190
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☐ Population/Housing Balance
☒ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☒ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☐ Other:

Present Land Use/Zoning/General Plan Designation:

The Fresno County GP land use designation for the entire project site is Agriculture with zoning AE-20 (Exclusive Agricultural).

Project Description: *(please use a separate page if necessary)*

EC&R Solar Development, LLC (the Applicant) has submitted to The County of Fresno (County) three Unclassified Conditional Use Permit (CUP) Applications (CUP 3562, 3563, and 3564) to allow the construction and operation of a 150 megawatt (MW) solar photovoltaic (PV) generation facility, a 20 MW solar PV generation facility, and a 20 MW energy storage facility. The Project site is located on twelve (12) parcels totaling 1,593.52 acres, generally located west of South Lassen Avenue (SR-269), north of West Jayne Avenue, east of South Lake Avenue, and west of West Gale Avenue, approximately three miles south of the nearest city limits of the community of Huron.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

____	Air Resources Board	X	Office of Historic Preservation
____	Boating & Waterways, Department of	____	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
____	California Highway Patrol	____	Pesticide Regulation, Department of
X	Caltrans District # 6	X	Public Utilities Commission
____	Caltrans Division of Aeronautics	X	Regional WQCB # 5
____	Caltrans Planning	____	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
X	Conservation, Department of	____	Santa Monica Mtns. Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	X	SWRCB: Water Quality
X	Energy Commission	X	SWRCB: Water Rights
X	Fish & Game Region # 4	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	____	Toxic Substances Control, Department of
____	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
____	Health Services, Department of	____	Other:
____	Housing & Community Development	____	Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date September 15, 2017 Ending Date October 16, 2017

Lead Agency (Complete if applicable):

Consulting Firm: Stantec Consulting Services Inc.
Address: 1340 Treat Blvd, Suite 300
City/State/Zip: Walnut Creek, CA 94549
Contact: Trevor Macenski
Phone: 916-508-4170

Applicant: E.ON Climate & Renewables
Address: 20 California Street, Suite 500
City/State/Zip: San Francisco, CA 94111
Phone: 415-278-1080

Signature of Lead Agency Representative: [signature] **Date:** 9/13/17

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-7307
FAX (559) 445-5875
TTY 711
www.dot.ca.gov

Making Conservation a California way of life.

September 22, 2017

FRE-269-4.648
SCH# 2017091038
Solar Complex

Ms. Christina Monfette
Planner
Fresno County
2220 Tulare Street, 6th Floor
Fresno, California 93721

Dear Ms. Monfette:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the project referenced above. The project proposes to install solar panels for a 150 MW solar PV generation facility, a 20 MW solar PV generation facility, and a 20 MW energy storage facility. The project site is located on 1,593.52 acres, generally located north of West Jayne Ave, east of South Lake Ave, south of West Gale Ave and bounded by South Lassen Ave (State Route 269). Caltrans provides the following comments:

The State of California has an adopted Transportation Concept Report (TCR) for each of the State Routes that designates the ultimate right-of-way cross-section upgrades in the future. According to our Transportation Concept Report (TCR) for this segment of SR 269, in the vicinity of the proposed project, ultimate right of way is planned for 110 feet (55 feet from center line in both directions). The TCR indicates existing right of way in the project area ranges from 70 – 100 feet. It is recommended that the County preserve the right of way at the ultimate width of 110 feet to facilitate future improvements if widening occurs.

The parcel map indicates that access to the project site will be via existing, unpaved, driveways at Tractor Ave; W Phelps Ave; and the unofficial road approximately ½ mile north of W Jayne Ave where they intersect SR 269. Therefore, the owner(s) needs to provide a copy of the encroachment permit or submit an application requesting approval for driveway access. No new driveways will be permitted to access the State right of way. Likewise, should it become necessary to access the State's Right of Way to complete installation, the owner(s) will need to submit an application for an encroachment permit. An encroachment permit must be obtained for all proposed activities for placement of encroachments within, under or over the State highway rights-of-way. Activity and work planned in the State right-of-way shall be performed to State standards and specifications, at no cost to the State. Any existing or proposed driveways accessing State right-of-way must meet current State standards. Engineering plans, calculations, specifications, and reports (documents) shall be stamped and signed by a licensed Engineer or Architect. Engineering documents for encroachment permit activity and work in the State right-of-way may be submitted using English Units. The Permit Department and the Environmental Planning Branch will review and approve the activity and work in the State right-of-way before

an encroachment permit is issued. The Streets and Highways Code Section 670 provides Caltrans discretionary approval authority for projects that encroach on the State Highway System. Encroachment permits will be issued in accordance with Streets and Highway Codes, Section 671.5, "Time Limitations." Encroachment permits do not run with the land. A change of ownership requires a new permit application. Only the legal property owner or his/her authorized agent can pursue obtaining an encroachment permit. Please call the Caltrans Encroachment Permit Office - District 6: 1352 W. Olive, Fresno, CA 93778, at (559) 488-4058.

Dust control measures shall be implemented on the site in a manner to prevent dust from entering the State right-of-way.

No water from the proposed project shall flow into the State right-of-way without approval from the District Hydraulic Engineer. Additionally, stormwater is not allowed to be discharged to the State right-of-way. Since the proposed development/project involves one acre or more of ground disturbance, the applicant needs to be advised by the lead agency to contact the Central Valley Regional Water Quality Control Board office in Fresno at (559) 445-5116 to determine whether a Notice of Construction will be required. The applicant will be required to adhere to Caltrans construction stormwater requirements if there is proposed work within the State right-of-way. Additional information on Caltrans stormwater management requirements may be found at www.dot.ca.gov/hq/env/stormwater/index

If you have any further questions, please contact me at (559) 488-7307.

Sincerely,

JAMAICA GENTRY
Transportation Planner
Planning North Branch

Westlands Water District
3130 N. Fresno Street, P.O. Box 6056, Fresno, California 93703-6056, (559) 224-1523, FAX (559) 241-6277

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OCT 03 2017
FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

September 25, 2017

Ms. Christina Monfette
Fresno County Department of Public Works and Planning
Development Services Division
County of Fresno
2220 Tulare Street, Sixth Floor
Fresno, California 93721

Subject: COMMENTS REGARDING NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE FIFTH STANDARD SOLAR PROJECT COMPLEX (UCUP NOS. 3562, 3563 AND 3564; EIR NO. 7257)

Dear Ms. Monfette,

Westlands Water District (District) has reviewed the notice of preparation for the proposed solar panel project proposed by EC&R Solar Development, LLC.. After reviewing EC&R Solar Developments application, we have the following comments about the project site.

1. The Fifth Standard Solar Project Complex lies within the District boundary. This land currently receives an allocation of water from the District's agricultural water service contract. However once the land use changes to non agricultural, the land will no longer be eligible to receive an allocation of water from the District. Since the Applicant is proposing a solar development, the Applicant is eligible to receive water through the District's Municipal and Industrial (M&I) supply and the land will continue to have access to the District's distribution system.

2. The District has adopted regulations governing the application for and use of M&I water (Regulations). 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. A copy of the Regulations is also provided for your information.

3. The project location has District easements, water delivery points (PV9-1.5-E-2.5N, PV9-1.5-E-3.0, PV9-1.5-E-3.0B & PV9-1.5-E-3.2) and private water user pipelines. During the construction and operation of this facility, please do not disturb District property. Prior to any excavation the applicant should contact Underground Service Alert.

4. The Applicant must comply with the District's Backflow Prevention guidelines for this connection to the water system.

Thank you for the opportunity to assist the County of Fresno in this matter, if you have any additional questions please feel free to contact Jose Rangel at 559-241-6220.

Sincerely,

Russ Freeman
Deputy General Manager of Resources

Enclosures (2)

1. *Terms and Conditions for Municipal and Industrial Water Service*
2. *Article _. Regulations Regarding the Application for and Use of Municipal and Industrial Water Within Westlands Water District*

SONOMA AVE. | NAPA AVE. | EL DORADO AVE. | COLUSA AVE. | YUBA AVE. | BUTTE AVE. | LAKE AVE. | TRINITY AVE. | LASSEN AVE. | SISKIYOU AVE. | MADERA AVE. | GOLDENROD AVE.

R.16E. R.17E. R.17E. R.18E.

TORNADO AVE.

GALE AVE.

TRACTOR AVE.

PHELPS AVE.

JAYNE AVE.

FIRESTONE AVE.

GOODRICH AVE.

VINELAND AVE.

T.20S. T.21S.

℄ INTERSTATE HWY. 5

℄ COALINGA CANAL

℄ SAN LUIS CANAL

EL FLOW SYSTEM 12 PAIRS

TELEMETER CABLE 12 PAIRS

LAT. PV8

LAT. PV8-1.8

LAT. PV8-3.8

LAT. PV8P

LAT. PV9-1.5E

LAT. PV9-1.5E-2.0N

LAT. PV9-1.5E-2.0S

LAT. PV9

LAT. PV9P-1.6

LAT. PV9P-2.6W

LAT. PV9P-2.6E

LAT. PV9P-3.1W

LAT. PV9P-3.1E

LAT. 24R-0.9N

LAT. 24R-0.4N

LAT. 24R-0.9S

LAT. 24R-1.4S

LAT. 24R-1.9S

LAT. 24R-2.4S

LAT. 24R-2.9S

LATERAL 24R

LATERAL 25R

LATERAL 26R

LATERAL 27R

LAT. 25R-0.9N

LAT. 25R-0.4N

LAT. 27R-3.5N

LAT. 27R-2.5

LAT. 27R-1.5

LAT. 27R-1.0

DISTRICT BOUNDARY

DISTRICT BOUNDARY

HUMBOLDT AVE.

SHASTA AVE.

LASSEN AVE.

MODOC AVE.

DEL NORTE AVE.

R.17E. R.18E.

SEE LEGEND ON LATERALS 1, 2 & 3

WATER USERS PIPELINE

NOTE: THIS DRAWING IS UPDATED TO SHOW METER DATA ONLY. OWNERSHIPS SHOWN ARE NOT CORRECT.

WESTLANDS WATER DISTRICT
FRESNO, CALIFORNIA

DISTRIBUTION SYSTEM

LATERALS 24R, 25R, 26R, 27R & PV8, PV9

DELIVERY INSTALLATIONS

DRAWN R.M.S.	SUBMITTED	APPROVED
CHECKED	DESIGN ENGINEER	CHIEF ENGINEER

REV. 2-25-80 | DRAWING NO. 408

M-1-2-47

Adopted: 1/14/02
Revised: 4/18/05

ARTICLE _. REGULATIONS REGARDING THE APPLICATION FOR AND USE OF MUNCIPAL AND INDUSTRIAL WATER WITHIN WESTLANDS WATER DISTRICT

_.1 PURPOSE

Westlands Water District has a long-term contractual entitlement to receive from the United States an annual supply of 1,150,000 acre-feet (AF) of Central Valley Project (CVP) water. The contracts between Westlands Water District and the United States allow the District to make CVP water available for municipal, industrial and domestic uses. The District may also acquire additional water supplies for these purposes. This Article establishes the rules and procedures for making application for and the use of municipal and industrial (M&I) water.

_.2 GLOSSARY OF TERMS AND DEFINITIONS

Unless specified below, the terms and definitions contained in Article 2 of these Regulations shall apply.

A. "Ag Related M&I Use" – the use of water exclusively for purposes of commerce, trade or industry associated with the production of agricultural crops or livestock, or their related by-products, including human uses, other than housing, that are incidental to the Ag Related M&I Use.

B. "Historic Use" – the greatest annual quantity of CVP water delivered for M&I Use to an M&I Water User at a point of delivery during the five-year period immediately preceding June 30, 2001.

C. "M&I Use" – the use of water for drinking, cooking, bathing, showering, dish washing, and maintaining oral hygiene or purposes of commerce, trade or industry.

D. "M&I Water Application" - an agreement in a form approved by the General Manager or his designee between the District and an M&I Water User, which describes the point of delivery for such water and the estimated quantity of water that will be made available by the District for M&I Use.

E. "M&I Water User" - individual or entity who has executed and submitted to the District an M&I Water Application or to whom the District makes water available for M&I Use.

_.3 M&I WATER AVAILABILITY

A. The General Manager shall set aside from the District's CVP water supply or other sources he deems appropriate water for M&I Use.

B. The General Manager or his designee shall assist any M&I Water User in identifying a source of water that can be made available to the District for M&I Use; provided, that this provision shall not impose on the District or its employees an obligation to incur any expense or other obligation on behalf of such M&I Water User.

_.4 APPLICATION FOR WATER

A. Except for M&I Use initiated before July 1, 2001, to receive water for M&I Use, a proposed M&I Water User must file at the District's Fresno office an M&I Water Application. Upon approval by the District, the M&I Water Application shall constitute a valid agreement for M&I Use until the M&I Water User notifies the District in writing that such M&I Use will be terminated. Every M&I Water Application shall identify the point of delivery and the intended use of the M&I Water.

B. An M&I Water Application for use in excess of 5 acre-feet per year shall identify a source of water that will, at the applicant's expense, be made available to the District for the proposed M&I Use.

C. Notwithstanding Section _.4 B. of this Article, a M&I Water User may annually transfer into the M&I Water User's account a quantity of water, from any source available to the M&I Water User, sufficient to satisfy any Ag Related M&I Use for the water year; provided, the M&I Water User shall acknowledge in writing that the District has no obligation to make available to the M&I Water User, in any year, a quantity of water in excess of the quantity transferred into the M&I Water User's account.

D. A supplemental M&I Water Application shall be filed by any M&I Water User before the quantity of water for M&I Use made available to such M&I Water User is increased (i) above Historic Use, for M&I Water Users receiving M&I water before July 1, 2001, or (ii) above the quantity stated in the initial M&I Water Application, for M&I Use initiated after June 30, 2001.

_.5 USE OF WATER

A. The unauthorized use or taking of water for M&I Use, or the waste or unreasonable use of water, are prohibited. Water made available for M&I Use may only be used at the point of delivery and for the purpose(s) identified in the M&I Water Application. Except as provided in Section _.5 B. of this Article, the transfer of M&I water is prohibited.

B. M&I water identified pursuant to Section _.4 B. of this Article or water transferred by the M&I Water User pursuant to Section _.4 C. of this Article may be transferred within the District's boundaries. Nothing contained in this Article shall prevent an M&I Water User from changing the place of use of its M&I water within the District's boundaries.

C. All M&I Water Users shall implement conservation measures adopted by the Water Policy Committee of the Board of Directors or its successor.

D. All M&I Water Users shall cooperate in the District's efforts to comply with the terms of the Compliance Agreement between the California Department of Health Services and Westlands Water District, dated June 1, 2001.

E. Every point of delivery for M&I Water shall be equipped with a backflow prevention device of a design approved by the General Manager.

F. The General Manager is authorized, after written notice to the M&I Water User, to discontinue water service to any M&I Water User who violates this Article or the Terms and Conditions for Municipal and Industrial Water Service.

G. In the event the District's water supply is insufficient to meet all demands for water, including demands for irrigation, the General Manager is authorized to reduce the quantity of water made available for M&I Use or to impose such

temporary conservation actions or other measures, as he deems necessary to protect the public health and safety.

_.6 COMPLIANCE WITH TERMS AND CONDITIONS

Each M&I Water User shall comply with the Terms and Conditions for Municipal and Industrial Water Service, as amended by the Board from time to time. Failure to comply with the Terms and Conditions for Municipal and Industrial Water Service may be grounds for termination of M&I Water Use service, and no water shall be furnished to an M&I Water User who fails to make required payments pursuant to the Terms and Conditions for Municipal and Industrial Water Service, as amended by the Board, from time to time.

_.7 MISCELLANEOUS

A. The General Manager may do all things necessary to implement and effectuate these Regulations.

B. An appeal from any decision made pursuant to these Regulations shall be made to the Finance and Administration Committee of the Board of Directors. Such appeal shall be in writing and shall be filed with the District Secretary within 15 working days after notice of the decision. The decision of the Finance and Administration Committee may be appealed to the Board of Directors. Such appeal shall be in writing and shall be filed with the District Secretary within 15 working days after notice of the decision. The decision of the Board shall be final.

C. The General Manager shall provide notice of any changes or revision to these Regulations to all District landowners and M&I Water Users.

WESTLANDS WATER DISTRICT

OFFICE--3130 N. FRESNO STREET/MAILING--P. O. BOX 6056, FRESNO, CA 93703
TELEPHONE: WATER DEPT. (559) 241-6250/OTHER (559) 224-1523/FAX (559) 241-6276

TERMS AND CONDITIONS FOR MUNICIPAL AND INDUSTRIAL WATER SERVICE

1. The furnishing of water to and its use by the water user shall be subject to all regulations of the Board of Directors of the District as the same may exist now or hereafter be amended or adopted. In the event of a conflict between the terms and conditions set forth herein and the regulations, the latter shall be controlling.

2. All water delivered shall be pursuant to a request by the water user for the delivery of a stated amount to a specific location. The request shall be made within the time and in the manner prescribed by the General Manager.

3. Water will be furnished by the District subject to the terms and conditions under which the water is made available to the District and if, in the exclusive judgment of the District, the water and facilities for its delivery are available; provided, that the District will use its best efforts, to the extent that it has water and capacity available and taking into account the requirements of other water users to receive water from its facilities, to provide such water in the manner and at the times requested. The District may temporarily discontinue water service or reduce the amount of water to be furnished for the purpose of such investigation, inspection, maintenance, repair, or replacement as may be reasonably necessary of any of the District 's facilities. Insofar as feasible, the District will give the water user notice in advance of such temporary discontinuance or reduction, except in case of emergency, in which event no notice need be given. No liability shall accrue against the District or any of its officers, directors, or employees for damage, direct or indirect, because of the failure to provide water as a result of system malfunctions, interruptions in service necessary to properly operate and maintain the water distribution system, or other causes which are beyond the District's reasonable control.

4. By taking delivery of water from the District, the water user assumes responsibility for, and agrees to hold the District harmless from, all damage or claims for damage, which may arise from his furnishing or use of the water after it leaves the District facilities.

5. The water furnished by the District is not potable (suitable for drinking, cooking, bathing, or other domestic use) and the District does not warrant the quality or potability of water so furnished. By taking delivery of water from the District, the water user assumes responsibility for, and agrees to hold the District harmless from, damage or claims for damage arising out the non-potability of water furnished by the District. Untreated water must never be used for any type of human consumptive needs. A water user defined and operating as a Public Water Supply (PWS) shall be responsible for any water treatment, including but not limited to filtration and chlorination achieved through central treatment or point-of-entry (POE) treatment devices approved by the California Department of Health Services (DHS), in order to provide water safe for human consumption as required by Federal, State or local law or regulation.

According to DHS, the use of POE treatment systems by individual customers of a constructed conveyance system may not provide a continuous safe, potable supply of water due to inadequate operation and maintenance of these systems by the owners, unless they are a regulated PWS. Individual use of POE devices ("Water Treatment Exclusion") may only be used if they are approved by DHS and are regularly maintained by a State-licensed operator or service provider.

Facilities in place prior to July 2001, may continue to use bottled water for drinking and cooking ("Alternative Water Exclusion"). After July 2001, the District cannot furnish new municipal and industrial water service if bottled water use is the basis for the potable water supply unless approved by DHS. Bottled water may only be obtained from a State-licensed provider.

DHS mandates the District conduct periodic surveys of water use as required by the Safe Drinking Water Act and to collect records for Alternative Water and Treatment Exclusions. Records for exclusions include invoices or statements of bottled water delivery from a licensed provider or maintenance and service records for a POE system from a licensed operator. Water users who fail to complete a survey or provide records showing an approved exclusion requested by the District shall have water service discontinued if no response is received after a reasonable attempt has been made to obtain the information.

6. All water will be measured by the District with meters installed by it and such measurements shall be final and conclusive.

7. Charges for water, hereinafter referred to as "water charges", shall be established by the Board of Directors. The water charges shall include District operation and maintenance costs and any other costs determined by the Board to be payable as part of the water charges. Water charges shall be adjusted retroactively to the extent required and authorized by federal or state law or regulations or District regulations. The General Manager may adjust the water charges as necessary and legally authorized to account for increases or decreases in the estimates used to establish the water charges.

8. As a condition of the District continuing to furnish water, the water user shall make payment for the amount billed after the District's billing and by the 25th of the month in which the bill is mailed; provided, that the due date will be not less than 15 calendar days after the billing date. Charges not paid by the due date shall be delinquent; provided, that payments postmarked on or before the due date shall be deemed to have been received by that date. The payment of water charges or related penalties or interest shall be made at the District's Fresno office. When any deadline established herein falls on a Saturday, Sunday, or holiday, it shall be extended to the next working day.

9. All claims for overcharges or errors must be made in writing and filed with the District at its Fresno Office within 10 working days after the date the bill is received by the water user. In the event the water user files a timely written protest, the District's Finance & Administration Committee shall consider the protest at its next regular meeting and notify the water user in writing of its decision. The Committee's decision shall be final, unless a written appeal to the Board of Directors is filed with the Secretary of the District within 15 working days after notice of the decision. In the event of an appeal, the decision of the Board shall be final. The filing of a protest or an appeal does not nullify the payment requirement or the District's right to discontinue water service as provided in these terms and conditions. However, in the event the protest or appeal is sustained, the District will refund the amount of the overcharge and penalty, if any.

10. On the first day following the due date, a penalty of 10 percent of the water charges which became delinquent on the preceding day shall be added to the water charges and penalties and interest, if any, due and owing to the District, the total of which are hereinafter referred to as "unpaid charges." Prior unpaid charges shall accrue interest at a monthly rate of 1½ percent. The interest shall not, however, accrue after the unpaid charges have been added to, and become a part of, the annual assessment levied on the land by the District. All payments and credits shall be applied to the earliest unpaid charges.

11. At the time of filing the District's assessment book with the District Tax Collector, unpaid charges may be added to and become a part of the assessment levied by the District on the land which received the water or for which other water charges were incurred. The District shall notify the landowner of the expected amount prior to its addition to the annual assessment. The amount so added shall be a lien on the land and impart notice thereof to all persons. If the assessment becomes delinquent, penalties and interest will be added as provided by law.

12. To supplement the procedure described in paragraph 11, the District may elect to file and record a Certificate of Unpaid Water Charges as provided in California Water Code Section 36729. This

Certificate creates a lien in the amount of unpaid charges on any land owned by the delinquent water user, or acquired by the water user before the lien's expiration, within the recording County.

13. Except as provided in paragraph 15, municipal and industrial water service shall not be provided to any parcel of land for which the unpaid charges for such service are a lien on the land or for which the assessment is delinquent.

14. Except as provided in paragraph 15, municipal and industrial water service shall not be provided to any person who owes the District unpaid charges notwithstanding the fact that the unpaid charges have been added to the assessment(s) on the parcel(s) for which they were incurred.

15. Where the District furnishes residential water service to persons other than the water user to whom the service is billed, the District shall make a reasonable, good faith effort to inform the actual users of the services when the account is delinquent. This shall be done by a notice that service will be terminated in 10 days. The notice shall inform the actual users that they have the right to become customers of the District without being required to pay the amount due on the delinquent account.

The District is not required to make service available to the actual users unless each actual user agrees to the terms and conditions of service. However, if one or more actual users are willing and able to assume responsibility for the entire account to the satisfaction of the District, or if there is a physical means legally available to the District of selectively terminating service to those actual users who have not met the requirements of the District's terms and conditions, the District shall make service available to the actual users who have met those requirements. In making service available to an actual user, the District may require that a deposit be paid to the District prior to establishing an account and furnishing service. If a deposit is required, it shall be based solely upon the creditworthiness of the actual user as determined by the District.

The District will give notice of the delinquency and impending termination of residential water service, at least 10 days prior to the proposed termination, by means of a notice mailed postage prepaid or by personal delivery to the water user to whom the service is billed not earlier than 19 days from the date of mailing the District's bill for services, and the 10-day period shall not commence until 5 days after the mailing of the notice. When the day established for the discontinuance of water service falls on a Saturday, Sunday, or District holiday, such water service shall be discontinued on the next working day.

The District will make a reasonable, good faith effort to contact an adult person residing at the premises of the water user by telephone or in person at least 48 hours prior to any termination of residential water service.

The District will comply with all other applicable provisions of California Government Code Sections 60370-60375.5 regarding termination of residential water service.

16. Except as provided in paragraph 15, in the event water service hereunder is discontinued as a result of nonpayment of water charges, all unpaid charges for such service which are due the District from the person in default must be paid before water service can be restored.

17. If a water user's delinquent charges are unpaid for 30 days or more, or if a water user's delinquent charges are added to the annual assessments on any lands within the District, or the procedure in paragraph 12 is implemented, the General Manager shall require, as a condition of resumption of water service, that advance payment of all water charges be made for the 12-month period immediately following resumption of service, according to a schedule to be determined by the General Manager. A written guarantee in a form satisfactory to the General Manager from a recognized financial lending institution may be substituted in lieu of advance payment.

18. The General Manager, after consultation with and approval by the Finance & Administration Committee, may also require advance payment and/or payment by cashier's check or such other actions as he may deem necessary when a water user's account is determined, based on the payment history or other actions of the water user, to create a financial risk or hardship for the District or its landowners. Circumstances which constitute the basis for such a determination include but are not limited to the following: (1) instances of a water user's checks being returned unpaid or (2) instances where a water user whose account is delinquent has, in violation of District regulations, taken water from a District delivery.

19. By applying for or taking delivery of municipal and industrial water from the District, the water user agrees to these terms and conditions of service.

20. The District may modify or terminate these terms and conditions; provided, that such modifications or terminations are prospective only and notice thereof is given prior to the effective date by mail to the water user.

Jack Castro, City Manager
City of Huron
P.O. Box 339
36311 S Lassen Ave.
Huron, CA 93234
(559) 945-2241
jcastro001@yahoo.com

RECEIVED
COUNTY OF FRESNO
FEB 19 2019
DEPARTMENT OF PUBLIC WORKS
AND PLANNING
DEVELOPMENT SERVICES DIVISION

February 12, 2019

EIR 7257

Supervisor Buddy Mendes
County of Fresno
2281 Tulare Street, Room #301
Fresno, CA 93721

Dear Supervisor Mendes,

I am writing today to voice my support for the proposed solar development known as the Fifth Standard Solar Project Complex on 1,590 acres of land south of Huron. The site is part of an approximately 20,000-acre farming operation owned and managed by Woolf Farming & Processing, a large employer in Huron and the surrounding area.

I have seen firsthand how lack of water supplies adversely impact local farming operations and in turn the surrounding community. With the implementation of the Sustainable Groundwater Management Act farms will need every option at their disposal to maintain viable businesses. Solar development - which requires no water - is one such option.

I view solar development as a benefit to the local community and urge the Fresno County to do the same.

Sincerely,

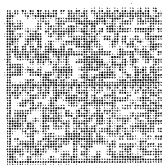
Jack Castro

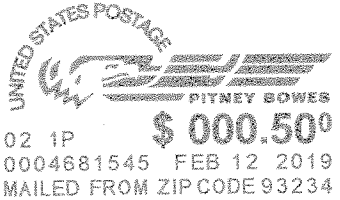
cc: William M. Kettler, Manager
Development Services and Capital Projects Division
Department of Public Works and Planning
County of Fresno
2220 Tulare Street, 6th Floor
Fresno, CA 93721

"Together We Can"

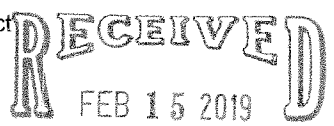
City of Huron
P.O. Box 339
36311 S.Lassen Ave.
Huron, CA 93234

SANTA CLARITA
CA 913
13 FEB '19
PM 5 L

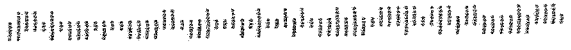




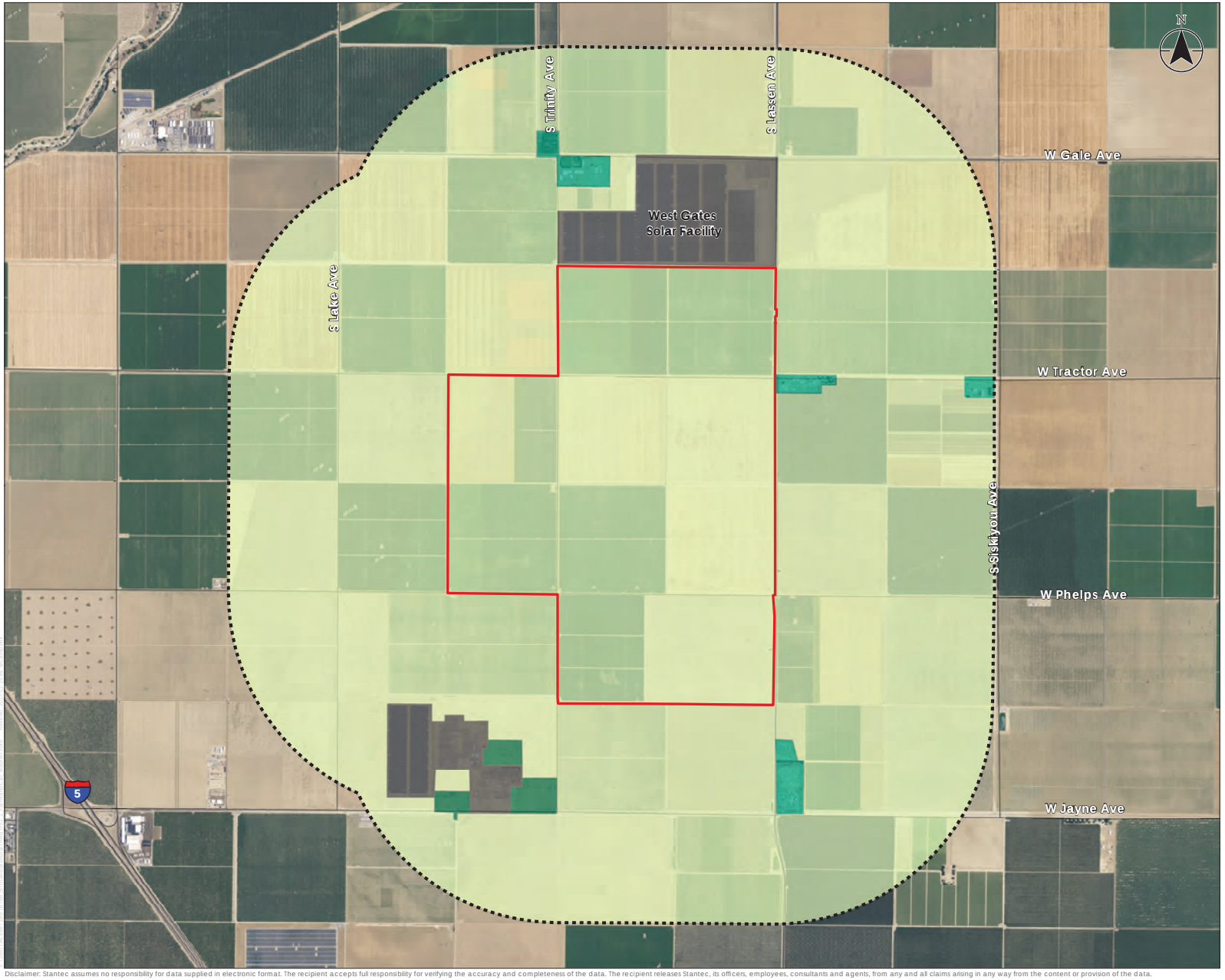
William M. Kettler, Manager
Development Services and Capital Project
Division Department of Public Works and
Planning County of Fresno
2220 Tulare St, 6th Floor
Fresno, CA 93721



93721-21750



APPENDIX B
LAND EVALUATION AND SITE ASSESSMENT



Title
FMMP Farmland Catergories within One-Mile of Project Boundary

Project
Fifth Standard Solar Project

0 0.5 1
Miles

1:13,000 (At original document size of 36x24)

Legend

- Project Boundary
- 1-mile Project Boundary Buffer

FMMP Farmland Catergories (2014)

- Farmland of Local Importance
- Prime Farmland
- Semi-Agricultural and Rural Commercial Land
- Urban and BuiltUp Land



Notes

1. Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
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Title

California Storie Index

Project

Fifth Standard Solar Project

0 0.25 0.5

Miles

1:6,500 (At original document size of 36x24)

Legend

Project Boundary

Soil Rating

Grade One - Exellent



Notes

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Title

Farmland Classification

Project

Fifth Standard Solar Project

0 0.25 0.5

Miles

1:6,500 (At original document size of 36x24)

Legend

Project Boundary

Soil Rating

Prime farmland if irrigated

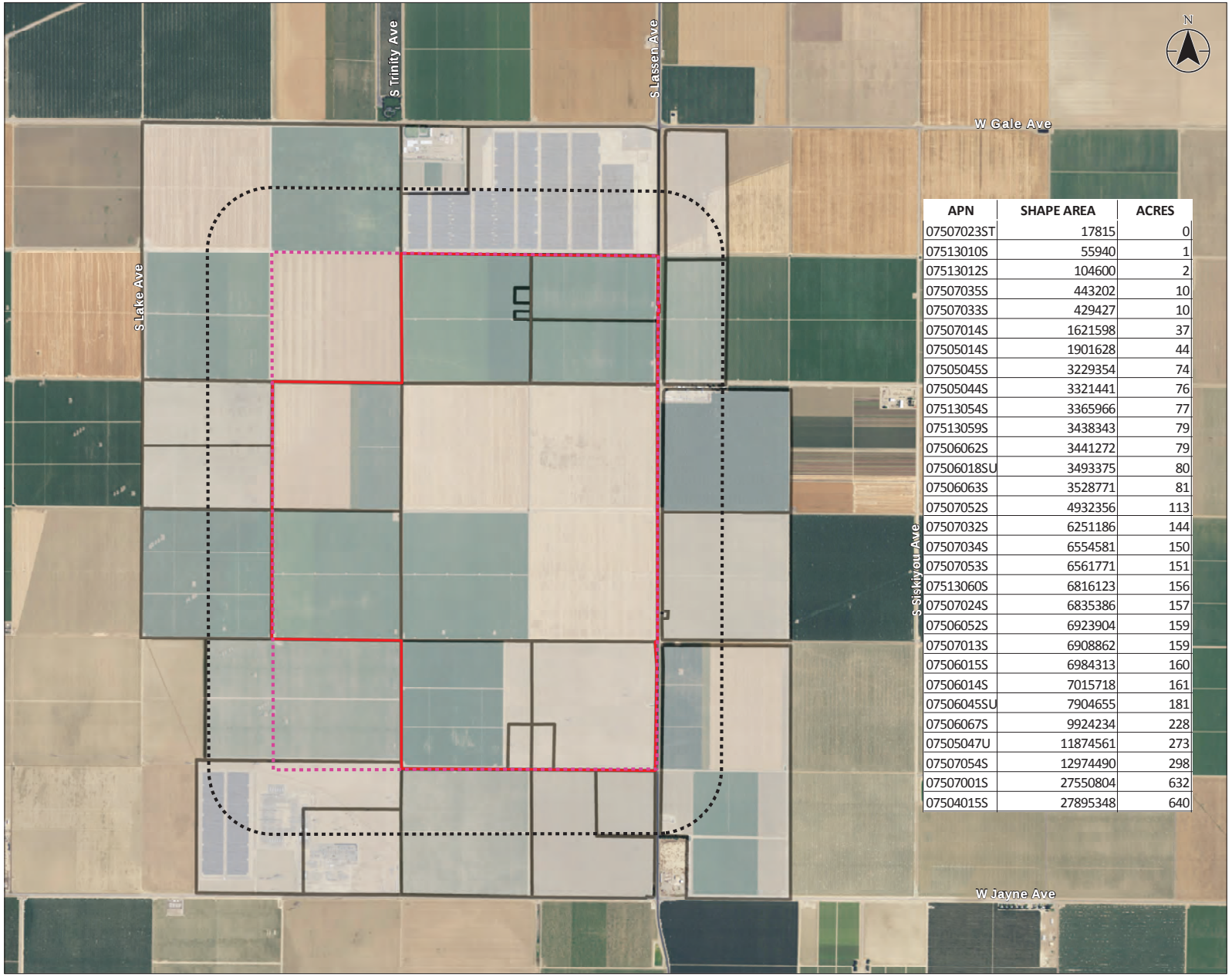


Notes

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APN	SHAPE AREA	ACRES
07507023ST	17815	0
075130105	55940	1
075130125	104600	2
07507035S	443202	10
07507033S	429427	10
07507014S	1621598	37
07505014S	1901628	44
07505045S	3229354	74
07505044S	3321441	76
07513054S	3365966	77
07513059S	3438343	79
07506062S	3441272	79
07506018SU	3493375	80
07506063S	3528771	81
07507052S	4932356	113
07507032S	6251186	144
07507034S	6554581	150
07507053S	6561771	151
07513060S	6816123	156
07507024S	6835386	157
07506052S	6923904	159
07507013S	6908862	159
07506015S	6984313	160
07506014S	7015718	161
07506045SU	7904655	181
07506067S	9924234	228
07505047U	11874561	273
07507054S	12974490	298
07507001S	27550804	632
07504015S	27895348	640

Title
Zone of Influence for LESA Model

Project
Fifth Standard Solar Project

0 0.45 0.9
Miles

1:11,099 (At original document size of 36x24)

Legend
- Project Boundary
- Project Boundary Buffer
- 1/4-mile Project Boundary Buffer
- Parcels



Notes
1. Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
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NOTES

Calculation of the Land Evaluation (LE) Score

Part 1. Land Capability Classification (LCC) Score:

(1) Determine the total acreage of the project.
(2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.
(3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
(4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
(5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
(6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VIe,s,w	VIIe,s,w	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

(7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
(8) Sum the LCC scores in **Column F**.
(9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

Part 2. Storie Index Score:

(1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
(2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
(3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
(4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

Land Evaluation Worksheet

Land Capability Classification (LCC) and Storie Index Scores

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
hnzw	102	.06	2s	80	4.8	80	4.8
hp09	1,495	.94	1	100	94	95	89.3
Totals		(Must Sum to 1.0)		***LCC Total Score***	98.8	***Storie Index Total Score***	94.1

Site Assessment Worksheet 1.

Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
			102
			1,495
Total Acres			1,597
Project Size Scores			100

Highest Project Size Score 100

NOTES

Calculation of the Site Assessment (SA) Score

Part 1. Project Size Score:.

(1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
(2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
(3) Sum **Column J** to determine the total amount of class III soils on the project site.
(4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
(5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

Class I or II		**Class III**		**Class IV or Lower**	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
10<	0	20-39	30	40<	0
		10-19	10		
		10<	0		

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

NOTES

Part 2. Water Resource Availability Score:

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 2. - Water Resources Availability

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	420	.26	30	7.8
2	1,177	.74	35	25.9
3				
4				
5				
6				
		(Must Sum to 1.0)	***Total Water Resource Score***	33.7

Water Resource Availability Scoring Table

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	-- --	-- --	50
9	YES	NO	YES	NO	-- --	-- --	45
10	YES	YES	NO	NO	-- --	-- --	35
11	YES	YES	YES	NO	-- --	-- --	30
12	Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

NOTES

Part 3. Surrounding Agricultural Land Use Score:

(1) Calculate the project's Zone of Influence (ZOI) as follows:

(a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.

(b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.

(c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.

(2) Sum the area of all parcels to determine the total acreage of the ZOI.

(3) Determine which parcels are in agricultural use and sum the areas of these parcels

(4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.

(5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

Surrounding Agricultural Land Scoring Table

Percent of ZOI in Agriculture	Surrounding Agricultural Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<19	0

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 3.

Surrounding Agricultural Land and Surrounding Protected Resource Land

A	B	C	D	E	F	G
Zone of Influence						
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)	Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
2,832	2,254	2,298	80	81	95	95

NOTES

Part 4. Protected Resource Lands Score:

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

(1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.

(2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.

(3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.

(4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

Surrounding Protected Resource Land Scoring Table

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<20	0

(5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

NOTES

Final LESA Score Sheet

Calculation of the Final LESA Score:

(1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
(2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
(3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
(4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification	<1> 98.8	0.25	24.7
Storie Index	<2> 94.1	0.25	23.52
LE Subtotal		***0.50***	48.22
SA Factors			
Project Size	<3> 100	0.15	15
Water Resource Availability	<4> 33.7	0.15	5.05
Surrounding Agricultural Land	<5> 95	0.15	14.25
Protected Resource Land	<6> 95	0.05	4.75
SA Subtotal		***0.50***	39.05
		Final LESA Score	87.72

80 to 100 = considered significant

Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

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APPENDIX C
AIR QUALITY AND GREENHOUSE GAS EVALUATION TECHNICAL REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

Final

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Air Quality and Greenhouse Gas Evaluation Technical Report

Prepared for
E.ON Climate and Renewables

September 2019



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EC&R SOLAR DEVELOPMENT, LLC
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OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations.

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CHAPTER 1
Introduction

1.1 Overview of Report

Environmental Science Associates (ESA) has prepared this Air Quality and Greenhouse Gas (GHG) Evaluation Technical Report for the Fifth Standard Solar Project Complex (the Project).

This report presents the location and description of the Project, identifies potential air pollutants of concern and describes the regulatory and environmental setting for both air quality and GHGs. It also describes the analysis methodology and significance criteria, and presents the analysis of direct and cumulative impacts of the Project.

1.2 Project Location and Description

EC&R Solar Development, LLC (the Applicant), is proposing to construct, operate, maintain, and ultimately decommission the Project on a 1,594-acre site in unincorporated Fresno County, 2 miles east of Interstate 5, 1.5 miles south of Huron, and approximately 13 miles east of Coalinga (the "Project site"). The Project (shown in **Figure 1**) comprises three facilities:

- Fifth Standard Solar Facility: a 150 megawatt (MW) photovoltaic (PV) solar energy generation facility that is anticipated to require up to 1,400 acres of the site.
- Stonecrop Solar Facility: a 20 MW PV facility that would be located adjacent to Fifth Standard Solar and would require less than 200 acres of the site.
- Blackbriar Battery Storage Facility: an up to 100 MW battery storage facility that would be located adjacent to Fifth Standard and Stonecrop, and would utilize less than 5 acres of the site.

These three facilities are expected to share a step-up transformer and a generation intertie (gen-tie) line, which will connect the Project to the electric grid at the Gates Substation. The three facilities are proposed for processing separately, with each having its own Unclassified Conditional Use Permit so that the electricity/storage capacity from each facility could be sold separately or in combination.

Surrounding land uses include farmland, the Pacific Gas and Electric Company's (PG&E's) Gates Substation and two nearby solar generating facilities (Gates Solar and West Gates Solar) (Figure 1). The Gates Substation is located 0.3 mile southwest of the Project site. The existing West Gates Solar facility is adjacent to the Gates substation, 0.5 mile southwest of the site. The Gates Solar facility is located to the north and immediately adjacent to the Project site. The

Pleasant Valley Ecological Reserve is located across the I-5, 6 miles west of the site (California Department of Fish and Wildlife, 2016). New Coalinga Municipal Airport is located approximately 9 miles to the west of the site.

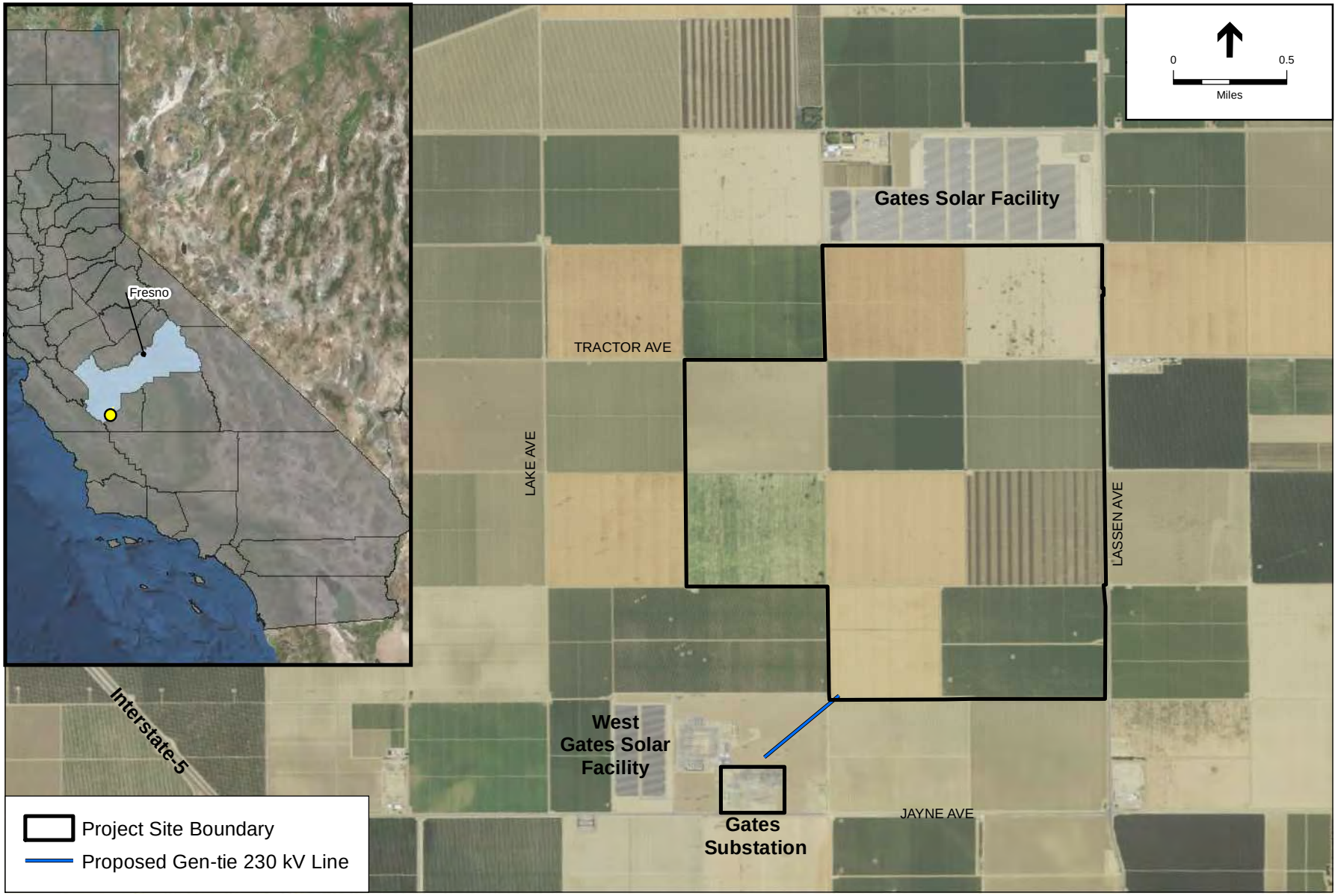


SOURCE: EC&R Solar Development, LLC, 2016; ESRI

Fifth Standard Solar Project Complex. 120251

Figure 1

Project Vicinity



SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 2

Project Location

CHAPTER 2
Setting

2.1 Air Pollutants of Concern

Air pollutants of concern with respect to construction, operation, maintenance, and decommissioning of the Project include ozone, nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter, sulfur dioxide (SO_2), lead, and greenhouse gases (GHGs).

2.1.1 Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving precursor organic compounds (POC) and nitrogen oxides (NO_X). POC and NO_X are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of POC and NO_X under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

2.1.2 Nitrogen Dioxide

NO_2 is an air quality pollutant of concern because it acts as a respiratory irritant. NO_2 is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_X. A precursor to ozone formation, NO_X is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, NO_X emitted from fuel combustion is in the form of nitric oxide (NO) and NO_2. NO is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

2.1.3 Carbon Monoxide

CO is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions

(typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

2.1.4 Particulate Matter

Particulates less than 10 microns in diameter (PM_{10}) and less than 2.5 microns in diameter ($PM_{2.5}$) can be inhaled into air passages and the lungs and can cause adverse health effects. 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 demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

2.1.5 Other Criteria Air Pollutants

Sulfur dioxide (SO_2) is a combustion product of sulfur or sulfur-containing fuels such as coal. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter (both PM_{10} and $PM_{2.5}$) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxic health effects, and was formerly released into the atmosphere primarily via the combustion of leaded gasoline. The use of leaded gasoline ceased in the US after 1995, resulting in decreasing levels of atmospheric lead.

2.1.6 Greenhouse Gases

Gases that trap heat in the atmosphere are called GHGs. GHGs allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation, which warms the air. The process is similar to the effect greenhouses have in raising the internal temperature, hence the name GHGs. Both natural processes and human activities emit GHGs. The accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities – such as fossil fuel-based electricity production and the use of motor vehicles – have elevated the concentration of GHGs in the atmosphere. This accumulation of GHGs has contributed to an increase in the temperature of the Earth's atmosphere and to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long term global temperature increases.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). CO_2 is the most common reference gas for climate change. To account for the warming potential of GHGs, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 23,900 times the global warming potential (GWP) as CO_2. CO_2e is commonly reported in metric tons, as opposed to short tons for other pollutants.

2.2 Regulatory Setting

2.2.1 Air Quality

The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) establish ambient air quality standards and establish regulatory authorities designed to attain those standards. Responsibilities related to air quality exists at the federal, state, and local levels of government.

Federal

The United States Environmental Protection Agency (USEPA) is required by the federal CAA to identify and establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The USEPA has set NAAQS for six principal pollutants, called criteria air pollutants. These criteria air pollutants include ozone, NO_2, SO_2, CO, particulate matter, and lead. The original indicator for particulate matter was total suspended particulates (TSP); currently the standards are in terms of PM_{10} and $PM_{2.5}$.

The USEPA must designate areas as meeting (attainment) or not meeting (nonattainment) the standard. In attainment areas, the states are required to develop a general plan to attain and maintain the NAAQS, or develop a specific plan to attain the standards in nonattainment areas. Currently, the San Joaquin Valley Air Basin (SJVAB) is designated as nonattainment for the federal 8-hour ozone standard and the federal 24-hour and annual $PM_{2.5}$ standards (CARB, 2018). The NAAQS and federal attainment status of the area in the vicinity of the Project site are presented in **Table 1**.

The federal CAA set a national visibility goal to remedy existing degraded visibility and prevent future visibility impairment in national parks and wilderness areas. The Regional Haze Rule was adopted in July 1999 and applies to 156 national parks and wilderness areas (Class I areas). There are 29 Class I areas in California, and six within the San Joaquin Valley Air Pollution Control District (SJVAPCD): Ansel Adams Wilderness Area, Kaiser Wilderness Area, John Muir Wilderness Area, Kings Canyon National Park, Sequoia National Park, and Dome Land Wilderness Area (CARB, 2019a).

TABLE 1
AMBIENT AIR QUALITY STANDARDS AND
SAN JOAQUIN VALLEY AIR BASIN ATTAINMENT STATUS

Pollutant	Averaging Time	State Standard		National Standard	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	1-Hour 8-Hour	0.09 ppm 0.070 ppm	Nonattainment Nonattainment	– 0.070 ppm	– Nonattainment
Carbon Monoxide	1-Hour 8-Hour	20 ppm 9.0 ppm	Attainment/Unclassified Attainment/Unclassified	35 ppm 9 ppm	Attainment/Unclassified Attainment/Unclassified
Nitrogen Dioxide	1-Hour Annual	0.18 ppm 0.030 ppm	Attainment Attainment	100 ppb 0.053 ppm	Attainment/Unclassified Attainment/Unclassified
Sulfur Dioxide	1-Hour 3-Hour 24-Hour Annual	0.25 ppm – 0.04 ppm –	Attainment – Attainment –	75 ppb 0.5 ppm* – –	Attainment/Unclassified Attainment/Unclassified – –
PM_{10}	24-Hour Annual	50 µg/m^3 20 µg/m^3	Nonattainment Nonattainment	150 µg/m^3 –	Attainment –
$PM_{2.5}$	24-Hour Annual	– 12 µg/m^3	– Nonattainment	35 µg/m^3 12.0 µg/m^3	Nonattainment Nonattainment
Lead	30-Day Average Calendar Quarter	1.5 µg/m^3 –	Attainment –	– 0.15 µg/m^3	– Unclassified
Visibility Reducing Particulates	8-Hour	**	Unclassified	–	–
Sulfates	24-Hour	25 µg/m^3	Attainment	–	–
Hydrogen Sulfide	1-Hour	0.03 ppm	Unclassified	–	–
Vinyl Chloride	24-Hour	0.01 ppm	Attainment	–	–

NOTES: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter.

– No standard for pollutant and averaging period.
* Secondary National Standard.
** The State standard for visibility reducing particulates for all areas but Lake Tahoe Air Basin is an 8-hour average expressed as a extinction coefficient of 0.23 per kilometer due to particles when relative humidity is less than 70 percent (this is nominally equal to a visibility of 10 miles or more). The visibility reducing particulates standard is not to be exceeded (SJVAPCD, 2019a).

SOURCE: CARB, 2016b, CARB, 2017a, CARB 2018.

State

States are required to meet the NAAQS or adopt more stringent ambient air quality standards within the state. The CCAA establishes California Ambient Air Quality Standards (CAAQS) which are more stringent than the NAAQS for certain pollutants and averaging periods. In addition to the six criteria air pollutants identified by the USEPA, California has also established state ambient air quality standards for visibility reducing particulates, sulfates, hydrogen sulfide, and vinyl chloride. The current CAAQS, NAAQS, and attainment status of the SJVAB are presented in Table 1.

As shown in Table 1, the SJVAB is currently in nonattainment for the state 1-hour ozone standard, the state and federal 8-hour ozone standards, the state 24-hour and annual PM10 standards, the federal 24-hour PM2.5 standard, and the state and federal annual PM2.5 standards (CARB, 2016b, CARB, 2017a).

The California Air Resources Board (CARB) is responsible for establishing and reviewing the state standards, compiling the California State Implementation Plan (SIP) and securing approval of that plan from the USEPA, conducting research and planning, and identifying toxic air contaminants. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality management districts, which are organized at the county or regional level. Air quality management districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans that are required under the federal CAA and CCAA.

California's Diesel Risk Reduction Plan / Diesel Fuel Regulations

As part of California's Diesel Risk Reduction Plan, CARB has passed numerous regulations to reduce diesel emissions from vehicles and equipment that are already in use. Combining these retrofit regulations with new engine standards for diesel fueled vehicles and equipment, CARB intends to reduce DPM emissions by 85 percent from year 2000 levels by 2020. California Diesel Fuel Regulations (13 Cal. Code Regs. §§2281-2285; 17 Cal. Code Regs. §93114) provide standards for diesel motor vehicle fuel and non-vehicular diesel fuel.

CARB has also adopted a regulation for in-use off-road diesel construction and mining vehicles that is designed to reduce their emissions by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes (13 Cal. Code Regs. §2249) (CARB, 2000).

Local

The SJVAPCD and Fresno County have local rules, regulations, plans, and policies that apply to the Project.

San Joaquin Valley Air Pollution Control District

The Project site is located within the jurisdiction of the SJVAPCD, which regulates air pollutant emissions for all sources throughout the SJVAB other than motor vehicles. The SJVAPCD enforces regulations and administers permits governing stationary sources. There are no stationary source equipment planned for the Project; therefore, no local registration or SJVAPCD air quality permits are required for the operation of the facilities.

Rules

The following SJVAPCD rules, regulations, and plans would apply to the Project.

Regulation IV – Prohibitions

Rule 4101, Visibility, limits the visible plume from any source to 20 percent opacity. Rule 4102, Nuisance, prohibits the discharge of air contaminants or other materials in quantities that may cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public.

Regulation VIII – Fugitive PM10 Prohibitions

Regulation VIII contains rules developed pursuant to USEPA guidance for serious PM10 nonattainment areas. Applicable rules included under this regulation limit fugitive PM10 emissions from the following sources: construction, demolition, excavation, extraction and other earth moving activities, bulk materials handling, carryout and track-out, open areas, paved and unpaved roads, and unpaved vehicle/equipment traffic areas.

Control measures would be required to be implemented during the construction activities for the Project pursuant to these rules. Furthermore, Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities, requires a Dust Control Plan be submitted to the SJVAPCD prior to the start of any construction activity for non-residential development that will have 5 acres or more of disturbed surface area.

Regulation IX – Mobile and Indirect Sources

Rule 9510, Indirect Source Review, requires certain development projects to mitigate exhaust emissions from construction equipment greater than 50 horsepower to 20 percent below statewide average NO_X emissions and 45 percent below statewide average PM_{10} exhaust emissions. This rule also requires applicants to reduce baseline emissions of NO_X and PM_{10} emissions associated with operations by 33.3 percent and 50 percent, respectively, over a period of 10 years. An Indirect Source Review application is required to be submitted to the SJVAPCD (SJVAPCD, 2019b).

Air Quality Management Plans

As required by the federal CAA and the California CAA, air basins or portions thereof have been classified as either “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the standards have been achieved. Jurisdictions of nonattainment areas also are required to prepare an air quality management plan (AQMP) that includes strategies for achieving attainment. The SJVAPCD has approved AQMPs demonstrating how the SJVAB will reach attainment with the federal 1-hour and 8-hour ozone, PM_{10}, $PM_{2.5}$, and California CO standards.

Ozone

The SJVAPCD approved the 2016 Ozone Plan for 2008 8-Hour Ozone Standard on June 16, 2016. The purpose of this plan is to reduce NO_X emissions by over 60 percent between 2012 and 2031, and will bring the SJVAB into attainment with the federal 8-hour ozone standard no later than December 31, 2031 (SJVAPCD, 2016a).

The SJVAPCD’s 2013 Plan for the Revoked 1-Hour Ozone Standard was adopted by the SJVAPCD in September 2013. Although the USEPA revoked the 1979 1-hour ozone standard in

2005, many planning requirements are still in place. The purpose of this plan is to achieve attainment with the federal one-hour ozone ambient air quality standards in the SJVAB by 2017 (SJVAPCD, 2013).

Particulate Matter

In June 2007, the SJVAPCD Board adopted the 2007 PM_{10} Maintenance Plan and Request for Redesignation. This plan demonstrates how PM_{10} attainment in the SJVAB will be maintained in the future. Effective November 12, 2008, USEPA redesignated the SJVAB to attainment maintenance for the PM_{10} NAAQS and approved the 2007 PM_{10} Maintenance Plan.

In April 2008, the SJVAPCD Board adopted the 2008 $PM_{2.5}$ Plan and approved amendments to Chapter 6 of the 2008 $PM_{2.5}$ Plan on June 17, 2010. This plan was designed to addresses EPA's annual $PM_{2.5}$ standard of 15 µg/m³, which was established by EPA in 1997. In December of 2012, the SJVAPCD adopted the 2012 $PM_{2.5}$ Plan, which addresses USEPA's 24-hour $PM_{2.5}$ standard of 35 µg/m³, which was established by USEPA in 2006. In April of 2015, the SJVAPCD approved the 2015 Plan for the 1997 $PM_{2.5}$ Standard, which addresses USEPA's annual $PM_{2.5}$ standard of 15 µg/m^3 and 24-hour $PM_{2.5}$ standard of 65 µg/m^3, established in 1997. In September, 2016 the District adopted the 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard which addresses the EPA federal annual PM 2.5 standard established in 2012. In November 2018, the District adopted the 2018 plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards (SJVAPCD, 2019c).

Carbon Monoxide

In April 1996, CARB approved the Carbon Monoxide Redesignation Request and Maintenance Plan for Ten Federal Planning Areas as part of the SIP for CO. The ten areas addressed include areas within the SJVAB. USEPA approved this revision on June 1, 1998 and redesignated the ten areas to attainment. CARB revised the SIP in October of 1998 to remove wintertime oxygen requirement for gasoline in certain areas. In July of 2004, CARB approved an update to the SIP for CO that shows how the ten areas will maintain the standard through 2018, revises emission estimates, and establishes new on-road motor vehicle emission budgets for transportation conformity purposes (CARB, 2011).

Fresno County

The Fresno County General Plan includes policies concerning air quality that are applicable to the Project.

Policy OS-G.12

The County shall continue, through its land use planning processes, to avoid inappropriate location of residential uses and sensitive receptors in relation to uses that include but are not limited to industrial and manufacturing uses and any other use which have the potential for creating a hazardous or nuisance effect.

Policy OS-G.13

The County shall include fugitive dust control measures as a requirement for subdivision maps, site plans, and grading permits. This will assist in implementing the SJVUAPCD's PM_{10} regulation (Regulation VIII). Enforcement actions can be coordinated with the Air District's Compliance Division.

Policy OS-G.14

The County shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use (County of Fresno, 2000).

2.2.2 Greenhouse Gases

Rules, regulations, and plans related to GHGs exist at the federal, state, and local levels of government.

Federal

In collaboration with the National Highway Traffic Safety Administration, the USEPA adopted GHG emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011 (USEPA, 2017). In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025 (USEPA, 2016b). In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks (USEPA, 2016c).

President Obama and the USEPA announced the Clean Power Plan in August of 2015. The goal of the Clean Power Plan was to would cut carbon pollution from power plants by 32 percent below 2005 levels and increase renewable energy generation percent to nearly 20 percent of all power supplied by 2030 (USEPA, 2015). However, on February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review (USEPA, 2016d). The Clean Power Plan was repealed in June of 2019 and replaced by the Affordable Clean Energy Rule which establishes emission guidelines for states to use when developing plans to limit CO_2 at coal fired electric generating units, determines a "best system of emission reduction" for GHG reduction from coal-fire power plants, and develops a list of "candidate technologies" for states to use when developing state level plans (USEPA, 2019).

Clean Air Act

On April 2, 2007, in Massachusetts v. USEPA (549 US 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. On April 17, 2009, the USEPA Administrator signed proposed "endangerment" and "cause or contribute" findings for GHGs under Section 202(a) of the Clean Air Act. The USEPA found that six GHGs, taken in combination, endanger both the public health and the public welfare of current and future generations. Pursuant to

40 CFR Part 52, *Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements apply to facilities whose stationary source CO_2e emissions exceed 100,000 tons per year (USEPA, 2016b). The Project would not trigger PSD or Title V permitting under this regulation because it would generate less than 100,000 tons of CO_2e emissions per year.

40 CFR Part 98. Use of Electric Transmission and Distribution Equipment

Pursuant to federal regulations (40 CFR Part 98, Subpart DD), operators of certain electrical facilities, such as SF_6-containing circuit breakers, are required to report SF_6 emissions to the USEPA (USEPA, 2018).

State

Executive Order B-55-18

In September 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045. EO B-55-18 directs CARB to work with state agencies to develop an implementation framework for and accounting that tracks progress toward this goal.

Renewables Portfolio Standard

California's Renewables Portfolio Standard (RPS) was established in 2002 by Senate Bill 1078, accelerated in 2006 under SB 107 and expanded in April 2011 under SB 2. The RPS program currently requires investor-owned utilities such as PG&E and others to procure 33 percent of electricity from eligible renewable energy resources by 2020. The program is jointly implemented by the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC). SB 100, passed in 2018, revised the goal of the program to achieve a 50 percent renewable resources target by 2026, and a 60 percent target by 2030. Additionally, SB 100 created a policy of the state that eligible renewable energy resources and zero-carbon resources must supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by 2045.

Executive Order S-3-05

Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2006, and establishes statewide emission reduction targets through the year 2050 as follows:

1. By 2010, reduce GHG emissions to 2000 levels;
2. By 2020, reduce GHG emissions to 1990 levels; and
3. By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This Executive Order does not include any specific requirements that pertain to the Project; however, future actions taken by the state to implement these goals may affect the Project, depending on the specific implementation measures that are developed.

Executive Order B-30-15

Executive Order B-30-15 was issued by Governor Jerry Brown in April 2015. The Order established a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030. Similar to Executive Order S-3-05, the Order does not include any specific requirements that pertain to the Project but future actions taken by the state to implement the goals may affect the Project. A recently released 2030 Target Scoping Plan Update Concept Paper outlines CARB's approach for achieving the 2030 GHG reduction target established in Executive Order B-30-15 (CARB, 2016c).

Assembly Bill 32

California Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006, requires CARB to establish a statewide GHG emissions cap for 2020 based on 1990 emission levels. AB 32 required CARB to adopt regulations that identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program. Under AB 32, CARB also was required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. CARB established this limit in December 2007 at 427 million metric tons of CO_2e. This is approximately 30 percent below forecasted "business-as-usual" emissions of 596 million metric tons of CO_2e in 2020, and about 10 percent below average annual GHG emissions during the period of 2002 through 2004 (CARB, 2009).

Toward achieving the maximum technologically feasible and cost-effective GHG emission reductions, AB 32 permits the use of market-based compliance mechanisms and requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts. CARB has adopted nine Early Action Measures for implementation, including heavy-duty vehicle GHG emission reduction, a tire inflation program, and a low carbon fuel standard, among other measures.

Senate Bill 1368

SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed by then-Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. The California Energy Commission (CEC) also was required to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC. The Project, as a renewable energy generation facility, is determined by rule to comply with the GHG EPS requirements of SB 1368.

Senate Bill 605

On September 21, 2014, Governor Jerry Brown signed Senate Bill 605 (SB 605), which required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate

pollutants in the state no later than January 1, 2016. As defined in the statute, short-lived climate pollutant means "an agent that has a relatively short lifetime in the atmosphere, from a few days to a few decades, and a warming influence on the climate that is more potent than that of carbon dioxide." SB 605, however, does not prescribe specific compounds as short-lived climate pollutants or add to the list of GHGs regulated under AB 32. In developing the strategy, the CARB completed an inventory of sources and emissions of short-lived climate pollutants in the state based on available data, identified research needs to address any data gaps, identified existing and potential new control measures to reduce emissions, and prioritized the development of new measures for short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit disadvantaged communities.

Senate Bill 375

In addition to policy directly guided by AB 32, the legislature in 2008 passed SB 375, which provides for regional coordination in land use and transportation planning and funding to help meet the AB 32 GHG reduction goals. SB 375 aligns regional transportation planning efforts, regional GHG emissions reduction targets, and land use and housing allocations. SB 375 requires Regional Transportation Plans (RTPs) developed by the state's 18 metropolitan planning organizations (MPOs) to incorporate "Sustainable Communities Strategies" (SCS) that will achieve GHG emission reduction targets set by CARB and coordinate regional housing and transportation. The Fresno Council of Governments (FCOG) is the federally recognized MPO for Fresno County.

The FCOG is the regional planning agency for Fresno County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. FCOG has prepared the *2014 Regional Transportation Plan and Sustainable Communities Strategy* for the region. In September 2010, CARB adopted the first SB 375 targets for the regional MPOs. The targets for the FCOG are a 5 percent reduction in emissions per capita by 2020 and a 10 percent reduction by 2035. Achieving these goals through adoption of a SCS is the responsibility of the MPOs. FCOG adopted its latest Regional Transportation Plan /Sustainable Communities Strategy in 2015. The plan quantified a 9 percent reduction by 2020 and an 11 percent reduction by 2035 (FCOG, 2014). In 2015, CARB accepted FCOG's quantification of GHG reductions and its determination the SCS, if implemented, would achieve FCOG targets. Project consistency with the *2014 Regional Transportation Plan and Sustainable Communities Strategy* would therefore support AB 32 GHG reduction goals.

Climate Change Scoping Plan

In December 2008, CARB approved the AB 32 Scoping Plan outlining the state's strategy to achieve the 2020 GHG emissions limit. The Scoping Plan estimates a reduction of 174 million metric tons CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors, and proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan must be updated every 5 years to evaluate the

implementation of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. The state is on track to meet AB 32's 2020 target (CARB, 2015). The First Update to the Climate Change Scoping Plan was approved by CARB in May of 2014 (CARB, 2014).

In November 2017, CARB published *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, which takes into account the key programs associated with implementation of the other two Scoping Plans—such as GHG reduction programs for cars, trucks, fuels, industry, and electrical generation—and builds upon, in particular, existing programs related to the Cap-and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks, and freight movement; power generation for the state using cleaner renewable energy; and strategies to reduce methane emissions from agricultural and other wastes by using it to meet the state's energy needs. The 2017 Scoping Plan also addresses, for the first time, GHG emissions from natural and working lands, including the agriculture and forestry sectors. It is intended to set forth a program to achieve the 2030 GHG emissions reduction target established by SB 32 of 40 percent below 1990 levels by 2030 (see below) (CARB, 2017b).

Senate Bill 97

In 2007, the California State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 neither requires nor recommends a specific analytical methodology or quantitative criteria for determining the significance of GHG emissions. Rather, the section calls for a "good faith effort" to "describe, calculate or estimate" GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would:

- Increase or reduce GHG emissions;
- Exceed a locally applicable threshold of significance; or
- Comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 Cal. Code Regs. §15064(h)(3)). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

17 Cal. Code Regs. §95350 et seq.

The purpose of this regulation is to achieve GHG emission reductions by reducing SF_6 emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1.0 percent. Owners must regularly inventory gas-insulated switchgear

equipment, measure quantities of SF_6, and maintain records of these for at least 3 years. Additionally, by June 1st each year, owners also must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year.

Pursuant to California Code of Regulations Title 17, Sections 95100 through 95158, operations of large industrial stationary combustion and process emissions sources that emit 10,000 metric tons CO_2e or more per calendar year are required to report and verify their GHG emissions to CARB. As indicated in Table 3.8-3, the total amortized GHG emissions for the Project would be 74.1 metric tons CO_2e per year, which is below the AB 32 reporting threshold; therefore, the Project would not be subject to the AB 32 mandatory reporting requirements.

Local

In August 2008, the SJVAPCD's Governing Board adopted the Climate Change Action Plan (CCAP). The CCAP directed the SJVAPCD Air Pollution Control Officer to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project-specific GHG emissions on global climate change.

On December 17, 2009, the SJVAPCD adopted *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*, and *District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process, as required by CEQA (SJVAPCD, 2009a; 2009b).

Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from "business-as-usual", is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project-related impacts on global climate change (SJVAPCD, 2019d).

CAPCOA Guidance

California Air Pollution Control Officers Association (CAPCOA) recommended an interim 900 Metric Tons (MT) CO_2e screening level as a theoretical approach to identify projects that require further analysis and potential mitigation (CAPCOA, 2008). Following CAPCOA's analysis of development applications in various cities, it was determined that the threshold of 900 MT CO_2e per year would achieve the objective of 90 percent capture and ensure that new development projects would keep the State on track to meet its AB 32 goals. SJVAPCD supports the use of the interim threshold established by CAPCOA when adopted thresholds are not applicable (SJVAPCD, 2009b).

Fresno Council of Governments

SB 375 requires MPOs to prepare a Sustainable Communities Strategy in their Regional Transportation Plan. As discussed in above, the FCOG developed the *2014 Regional Transportation Plan and Sustainable Communities Strategy* as the region's strategy to fulfill the requirements of SB 375. The *2014 Regional Transportation Plan and Sustainable Communities Strategy* establishes a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). Specifically, the *2014 Regional Transportation Plan and Sustainable Communities Strategy* links the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The *2014 Regional Transportation Plan and Sustainable Communities Strategy* does not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers (FCOG, 2019).

2.3 Environmental Setting

2.3.1 Topography and Meteorological Conditions

The Project site is located in the SJVAB, which occupies the southern half of the Central Valley and comprises eight counties: San Joaquin, Stanislaus, Fresno, Merced, Madera, Kings, Tulare, and portions of Kern County. The SJVAB is approximately 250 miles long and 35 miles wide (on average) and is bordered by the Coast Range Mountains on the west, the Sierra Nevada mountains on the east, and the Tehachapi Mountains to the south. On the valley floor, the SJVAB is open only to the north, which heavily influences prevailing winds (SJVAPCD, 2015).

Although marine air generally flows into the SJVAB from the San Francisco Bay Area through the Carquinez Strait (a gap in the Coast Range Mountains) and low mountain passes such as Altamont Pass and Pacheco Pass, the mountain ranges restrict air movement through the SJVAB. The prevailing winds blow from the northwest (Western Regional Climate Center, 2016a). Additionally, most of the surrounding mountains are above the normal height of summer inversion layers (1,500 to 3,000 feet). These topographic features result in weak airflow, poor dispersion of pollutants and, as a result, the SJVAB is highly susceptible to pollutant accumulation (SJVAPCD, 2015a).

The average daily maximum and minimum summer temperatures (i.e., July) in unincorporated Fresno County are 97.9 degrees Fahrenheit (°F) and 63.1 °F, respectively, and the average daily maximum and minimum winter (i.e., January) temperatures are 55.1 °F and 36.3 °F, respectively. Average annual precipitation is 6.8 inches (Western Regional Climate Center, 2016b).

2.3.2 Existing Air Quality and Pollutant Monitoring Data

The SJVAPCD operates a regional monitoring network that measures the ambient concentrations of criteria pollutants. Existing and probable future general levels of air quality in the SJVAB can

generally be inferred from ambient air quality measurements conducted by SJVAPCD at its monitoring stations.

Background ambient concentrations of pollutants are determined by pollutant emissions in a given area, and wind patterns and meteorological conditions for that area. As a result, background concentrations can vary among different locations within Fresno County. However, areas located close together and exposed to similar wind conditions can be expected to have similar background pollutant concentrations. The closest SJVAPCD monitoring station to the Project site is the Hanford-S Irwin Street station at 807 South Irwin Street in Hanford, California, which is approximately 28 miles northeast of the Project site; it monitors ozone, NO_2, $PM_{2.5}$, and PM_{10}. Monitoring has shown that CO concentrations in the SJVAB have not exceeded the NAAQS for over a decade, and the SJVAPCD does not exceed the NAAQS for SO_2 (SJVAPCD, 2018). **Table 2** shows a 3-year summary of data from 2016 to 2018 for ozone, NO_2, $PM_{2.5}$, and PM_{10} collected at both stations compared to the NAAQS and CAAQS.

TABLE 2
EXISTING AIR QUALITY IN THE VICINITY OF THE PROJECT SITE

Criteria Air Pollutant	Standard	Monitoring Data		
		2016	2017	2018
Ozone, O_3				
Highest 1-hour average, ppm	--	0.097	0.106	0.108
Days above state standard	0.09	2	7	1
Highest 8-hour average, ppm	--	0.088	0.094	0.082
Days above national standard	0.070	49	38	29
Nitrogen Dioxide, NO_2				
Highest 1-hour average, ppm	--	0.052	0.057	0.056
Days above state/national standards	0.18 / 0.100	0 / 0	0 / 0	0 / 0
Annual average, ppm	--	0.008	0.008	0.008
Exceed state/national standards?	0.030 / 0.053	0 / 0	0 / 0	0 / 0
Coarse Particulate Matter, PM_{10}				
Highest 24-hour average, µg/m^3	--	152.2	298.4	174.2
Estimated days above state/national standards	50 / 150	121.2 / 0	122.0/ 2.0	113.5 / 6.1
Annual average, µg/m^3	--	44.3	47.2	47.9
Exceed state standard?	20	Yes	Yes	Yes
Fine Particulate Matter, $PM_{2.5}$				
Highest 24-hour average, µg/m^3	--	59.7	113.4	107.8
Estimated days above national standard	35	25.0	33.8	*
Annual average, µg/m^3	--	15.6	16.8	*
Exceed state/national standards?	12 / 12.0	Yes/Yes	Yes/Yes	*

NOTE: $PM_{2.5}$ and NO_2 monitoring data from Hanford-S Irwin Street air monitoring site. ppm = parts per million. µg/m^3 = microgram per square meter

* Insufficient data available to determine value.

SOURCE: CARB, 2019b

As shown in Table 2, the State 1-hour ozone standard was exceeded two times in 2016, 7 times in 2017, and once in 2018. The federal2015 8-hour ozone standard was exceeded 49 times in 2016, 38 times in 2017, and 29 times in 2018. CARB estimates that the federal $PM_{2.5}$ 24-hour standard was exceeded 25.0 days in 2016 and 33.8 days in 2017. Exceedances of the State $PM_{2.5}$ annual average standard occurred during both years with available data (i.e., 2016 and 2017). As indicated in Table 2, no violations of the applicable NO_2 standards were recorded at the Hanford-S Irwin Street station during the 3-year period (CARB, 2019b).

2.3.3 Sensitive Receptors and Class I Areas

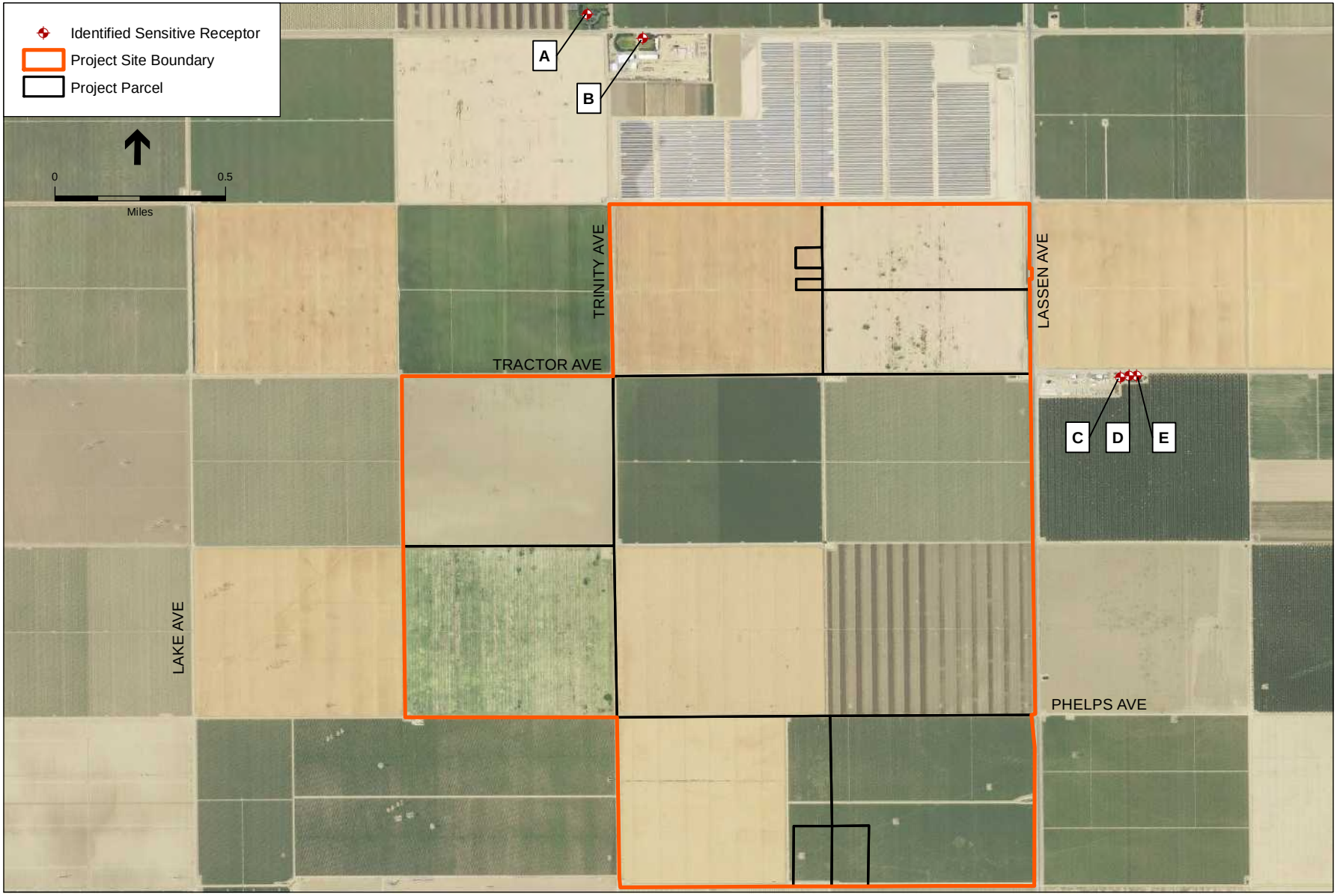
Sensitive receptors include people and land uses that are considered especially sensitive to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay in their homes for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The nearest sensitive receptors to the Project site are single-family residences approximately 1,100 feet east from the eastern edge of the Project site, on West Tractor Avenue (**Figure 3**). Two single-family residences are approximately 2,500 and 2,900 feet north from the northern edge of the Project site. As stated in *Topography and Meteorological Conditions*, the prevailing wind blows from the northwest (Western Regional Climate Center, 2016a). The residences on West Tractor Avenue may be considered downwind and the residences north of the Project site may be considered upwind.

As noted above, federal Class I areas include national parks and wilderness areas. The nearest Class I area to the Project site is Pinnacles National Park, outside of the SJVAB and approximately 60 miles to the northwest.

2.3.4 Odors

Land uses that commonly emit odorous compounds include wastewater treatment facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, painting/coating operations, food processing facilities, feed lots and dairies, and rendering plants. The SJVAPCD has published screening level distances for siting potential odor sources near sensitive receptors (SJVAPCD, 2015a). For wastewater treatment facilities and petroleum refineries, the applicable screening level distance is 2 miles; for all other types of facilities a 1 mile screening level distance is used.



SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 3

Identified Sensitive Receptors

2.3.5 Valley Fever

Valley Fever, or coccidioidomycosis, is the initial, or acute, form of a fungal infection caused by *Coccidioides*. The fungus is present in soil and dirt and can infect the lungs of people and animals such horses and canine species such as the San Joaquin kit fox if the spores are inhaled. There is no reliable way to test the soil for *Coccidioides* spores. However, based on incidence of illness, the valley fever fungus is known to be present in Fresno County. The infection can occur year-round and tends to occur in areas with dry dirt and desert-like weather conditions, such as those found in the SJVAB and Fresno County. Cultivated, irrigated soil may be less likely to contain the fungus compared to undisturbed soils (County of Fresno, 2019).

Symptoms may be flu-like or manifest as a more severe illness usually within one to three weeks after exposure; however, 60 percent of infected persons show no symptoms (California Department of Public Health, 2017). In extreme cases, valley fever can be fatal.

While cases of Valley Fever have been reported throughout California, over 65 percent of cases have been in the Central Valley and Central Coast (California Department of Public Health, 2019). In 2014, there were 2,217 cases of Valley Fever in California, with the most reported in the Central Valley (Fresno Bee, 2015). Anyone who lives, works, or travels in a valley fever area could contract valley fever; however, those most at risk of developing severe symptoms from Valley Fever include older adults greater than 60 years of age, African Americans, Filipinos, Hispanics, pregnant women (especially in the later stages of pregnancy), persons with diabetes, and persons with weakened immune systems (California Department of Public Health, 2019).

Farmers, construction workers, and others who engage in soil-disturbing activities are at the highest risk for developing Valley Fever. During the construction of two solar-power generating facilities in San Luis Obispo County, 1.2 cases of Valley Fever were observed per 100 workers (Centers for Disease Control and Prevention, 2015). For comparison, in in 2017 in states where Valley Fever is endemic (Arizona, California, Nevada, New Mexico, and Utah) there were 14,364 reported cases of Valley Fever (Centers for Disease Control and Prevention, 2019).

CHAPTER 3
Methodology

This chapter presents the methodology for the analysis of construction, operational, maintenance, and deconstruction emissions for the Project. Emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2 (Appendix A). The estimated emissions were then compared to applicable significance criteria. If a project exceeds the significance criteria, the project would be considered to have a significant impact on air quality or with respect to GHG.

3.1 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant impacts to air quality if it would:

a. Conflict with or obstruct implementation of the applicable air quality plan;

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

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

d. Expose sensitive receptors to substantial pollutant concentrations; or

e. Create objectionable odors affecting a substantial number of people.

To determine the significance of Project impacts on air quality, Project-related construction, operation, maintenance, and decommissioning emissions were estimated and compared to significance thresholds recommended in the SJVAPCD's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) to determine the significance of the impacts. The thresholds of significance are based on a calendar year basis. For construction emissions, the annual emissions are evaluated on a rolling 12-month period. **Table 3** presents the SJVAPCD air quality thresholds of significance relied upon in this analysis. As described in the SJVAPCD's GAMAQI, any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.

TABLE 3
AIR QUALITY THRESHOLDS OF SIGNIFICANCE – CRITERIA AIR POLLUTANTS

Pollutant/Precursor	Tons per Year		
	Construction Emissions	Operational Emissions (permitted equipment and activities)	Operational Emissions (non-permitted equipment and activities)
CO	100	100	100
NO_X	10	10	10
ROG	10	10	10
SO_X	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

NOTE: SO_X stands for oxides of sulfur, which SO_2 is a constituent. ROG stands for reactive organic gas.

SOURCE: SJVAPCD 2015a

Similarly, according to CEQA Guidelines Appendix G, a project would result in significant GHG emissions-related effects if it would:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

To determine the significance of the impacts caused by the GHG emissions from the Project, SJVAPCD's established GHG significance threshold methodology was used (SJVAPCD, 2014). This methodology recommends projects be compared to a "business-as-usual" scenario, and that projects should be considered to not have a significant impact if it can be demonstrated to have a 29 percent reduction in GHG emissions from the "business-as-usual" scenario. The "business-as-usual" scenario for the Project assumes that the current electricity generation mix in California remains the same during the operational lifetime of the project (30 to 50 years).

Regarding cumulative impacts, the SJVAPCD's GAMAQI recommends that any project that would have a significant direct or indirect air quality impact also should be considered to have a significant cumulative air quality impact. However, even if a project is below all significance thresholds, it still may cause or contribute to a significant cumulative impact when its incremental contribution is considered together with the impacts of past, present, or reasonably foreseeable future projects (SJVAPCD, 2015a). Cumulative impacts are analyzed in Chapter 5.

CHAPTER 4
Analysis of Direct and Indirect Effects

Impacts from the construction, operation, maintenance, and deconstruction phases of the Project are analyzed in Section 4.1, including an assessment of the conformance of the Project to the SJVAPCD's air quality management plans. Impacts relating to GHGs, odors, and Valley Fever are evaluated in Sections 4.2, 4.3, and 4.4, respectively.

4.1 Air Quality

4.1.1 Construction

Emissions from construction activities would be relatively short-term, limited to the time periods for each facility. Construction for the Fifth Standard Solar, Stonecrop Solar, and Blackbriar Battery Storage facilities will overlap (Appendix B). The Blackbriar Battery Storage Facility is projected to begin construction in February 2020 and be completed in June 2020, the Fifth Standard Solar Facility is anticipated to begin in April 2020 and be completed in December 2020, and the Stonecrop Solar Facility is anticipated to begin in August 2020 and be completed in December 2020.

The majority of construction emissions would be generated on-site by heavy-duty off-road equipment (such as backhoes, bulldozers, graders, front loaders, dump trucks, and cranes) used for site preparation, construction of access roads, installation of the solar array, and construction of the inverter sites, substations and generation tie lines. Exhaust emissions would also be generated by construction worker daily commutes and by heavy-duty diesel truck trips that transport materials to the Project site. It is assumed that the one-way worker trip lengths would average 50 miles long (assuming origin from Fresno area). For the vendor trips, it is assumed the trips associated with site preparation, grading/excavation, drainage/utilities, and paving would all come from the Fresno area (50-mile one-way trips), and half the trips associated with the construction phase would come from Port of Stockton (153 one-way miles) and the other half would come from the Fresno area (50-mile one-way trip), for an average trip length of 101.5 miles. Criteria pollutant and precursor exhaust emissions from construction equipment and vehicles would incrementally add to the regional ambient concentrations of these pollutants during construction of the Project (see Section 2.3.2).

Fugitive dust emissions would be the majority of PM_{10} emissions. Regulation VIII limits fugitive emissions from construction by implementing measures such as watering, limiting vehicle speed, creating and implementing a Dust Control Plan, and limiting construction in windy conditions. Compliance with Regulation VIII does not constitute mitigation because it is required by law.

Therefore, reductions in PM_{10} due to control measures required by Regulation VIII are included as unmitigated emissions.

Table 4 presents each individual facility's construction emissions and the total construction emissions from all three facilities before mitigation is implemented.

TABLE 4
TOTAL COMBINED PROJECT UNMITIGATED CONSTRUCTION EMISSIONS

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Fifth Standard Solar	1.69	**18.02**	12.24	0.05	13.53	2.17
Stonecrop Solar	0.92	9.87	6.71	0.03	7.04	1.15
Blackbriar Battery Storage	0.89	9.55	6.49	0.03	6.79	1.11
Total for Project	3.50	**37.44**	25.44	0.11	**27.35**	4.42
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	**Yes**	No	No	**Yes**	No

SOURCE: ESA, 2019 (Appendix A)

The Fifth Standard Solar Facility and the Project as a whole would result in a significant impact due to exceedances of the NO_X significance threshold. The Project as a whole would result in a significant impact due to an exceedance of the PM_{10} significance threshold. For each of the Stonecrop Solar and Blackbriar Battery Storage projects, emissions would not exceed any significance threshold.

Mitigation measures would be required to be implemented to reduce these impacts. **Mitigation Measure Air-1 (**see Section 4.1.4**)** would reduce construction equipment exhaust emissions of NO_X and PM_{10} emissions as required under Rule 9510. The use of Tier 3 and Tier 4 interim engines for construction equipment would achieve the required reductions in NO_X and exhaust PM_{10} per Rule 9510 (Tier 4 interim engines on equipment less than 81 horsepower). **Table 5** presents the reduction of exhaust emissions achieved using this mix of engines.

TABLE 5
SJVAPCD RULE 9510 EXHAUST EMISSIONS REDUCTIONS

Project	Unmitigated, tons per year		Mitigated, tons per year		Percent Reduction	
	NO_X	Exhaust PM_{10}	NO_X	Exhaust PM_{10}	NO_X	Exhaust PM_{10}
Fifth Standard Solar	18.02	0.7	15	0.43	17%	39%
Stonecrop Solar	9.87	0.38	8.21	0.24	17%	37%
Blackbriar Battery Storage	9.55	0.37	7.94	0.23	17%	38%
Total	37.44	1.45	31.15	0.9	17%	38%

NOTE: Emissions above include only exhaust emissions.

SOURCE: ESA, 2016 (Appendix A)

With the implementation of Mitigation Measure Air-1, *emissions associated with the Fifth Standard Solar Facility and the Project as a whole would continue to result in a significant impact due to exceedances of the NOx significance threshold, and the Project as a whole would continue to result in a significant impact due to an exceedance of the PM_{10} significance threshold.* **Table 6** presents the estimated construction emissions after implementation of Mitigation Measure Air-1.

TABLE 6
TOTAL COMBINED PROJECT MITIGATED CONSTRUCTION EMISSIONS AFTER IMPLEMENTATION OF MITIGATION MEASURE AIR-1

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Fifth Standard Solar	0.9278	**15.00**	14.41	0.05	13.28	1.95
Stonecrop Solar	0.51	8.21	7.9	0.03	6.89	1.03
Blackbriar Battery Storage	0.49	7.94	7.63	0.03	6.65	0.99
Total	1.9278	**31.15**	29.94	0.11	**26.82**	3.97
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	**Yes**	No	No	**Yes**	No

SOURCE: ESA, 2016 (Appendix A)

With Project construction as currently proposed (see Section 4.1.1) mitigation measures, project design features, and compliance with SJVAPCD regulations are not sufficient to reduce project-related impacts to a less than significant level. Mitigation Measure Air-1 would reduce impacts associated with construction of the Project (all three facilities) but would not prevent an exceedance of the SJVAPCD thresholds for NO_X and PM_{10}. Furthermore, although Regulation VIII substantially reduces fugitive dust emissions, it is not sufficient to reduce PM_{10} emissions to less than significant levels.

If the Project were constructed on an extended schedule with no overlap between construction of the Fifth Standard Solar facility and either or both the Stonecrop Solar and Blackbriar Battery Storage facilities, emissions of PM_{10} would not exceed SJVAPCD threshold and would remain less than significant.

If an extended construction schedule is not feasible, the SJVAPCD provides a further mitigation measure to reduce the impact to air quality to a less than significant level. **Mitigation Measure Air-2** (see Section 4.1.4) reduces project emissions to a less than significant level as a result of the implementation of an adopted Voluntary Emissions Reduction Agreement (VERA). To implement a VERA, the project proponent and the SJVAPCD enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds to the SJVAPCD. The SJVAPCD administers the implementation of the VERA and verifies that emission reductions have been achieved and that project specific emissions have been mitigated to a less than significant level (SJVACPD, 2015a).

Therefore, with the implementation of Mitigation Measure Air-1 and Air-2, the construction of the Project would have a ***less than significant impact***.

4.1.2 Operation and Maintenance

Emissions of criteria air pollutants during the operation and maintenance phase would be emitted during on-site and off-site motor vehicle travel and from paved and unpaved roads. The generation of electricity would not emit direct emissions of air pollutants. Operation and maintenance of the Project would generate emissions well below the SJVAPCD thresholds of significance. Therefore, operational emissions would be a ***less than significant impact***. **Table 7** presents operational emissions for each individual facility and the total operational emissions from all three combined (the Project).

TABLE 7
TOTAL COMBINED PROJECT UNMITIGATED OPERATIONAL EMISSIONS

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Fifth Standard Solar	0.25	2.33	1.54	0.01	0.11	0.09
Stonecrop Solar	0.16	1.52	1.04	< 0.01	0.06	0.06
Blackbriar Battery Storage	0.16	1.50	1.02	< 0.01	0.06	0.06
Total	0.57	5.35	3.60	0.01	0.23	0.21
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

SOURCE: ESA, 2016 (Appendix A)

4.1.3 Decommissioning

The Project has an expected lifetime of 30 to 50 years, after which time it would either be updated to current solar power technologies, or the site would be decommissioned and restored to an agricultural use-ready condition. Emission estimates for this analysis assume the Project would be decommissioned and the site restored because recommissioning is not currently planned or anticipated. Emissions associated with decommissioning and site restoration were conservatively estimated to be equal to emissions associated with construction. Therefore, decommissioning of the Project would result in similar emissions. The decommissioning of the entire Project would not exceed the SJVAPCD significance thresholds for ROG, SO_X, $PM_{2.5}$, and CO; however, emissions from NO_X and PM_{10} would exceed their applicable significance threshold. Implementation of **Mitigation Measures Air-1** and **Air-2** (Rule 9510 and entering into a VERA/staggering construction schedules) would reduce these emissions to a ***less than significant impact***.

4.1.4 Mitigation Measures

Mitigation Measure Air-1

- During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction.

- Electricity from power poles shall be used whenever practicable instead of temporary diesel or gasoline powered generators to reduce the associated emissions.

- To reduce construction vehicle (truck) idling while waiting to enter/exit the site, the contractor shall submit a traffic control plan that will describe in detail safe detours to prevent traffic congestion to the best of the Project's ability, and provide temporary traffic control measures during construction activities that will allow both construction and on-street traffic to move with less than 5-minute idling times.

- Construction equipment will use only California certified diesel or gasoline fuels.

- Pursuant to SJVAPCD Rule 9510, the Applicants will utilize construction equipment that is at the Tier 4 interim emission level for equipment less than or equal to 81 horsepower, and Tier 3 engines for all other equipment.

Mitigation Measure Air-2

To reduce construction impacts to a less than significant level, Mitigation Measure Air-2 requires the Project (the construction of all three facilities within one year) enter into a Voluntary Emission Reduction Agreement (VERA) with the SJVAPCD or stagger the construction periods for the three facilities to avoid a significant impact.

- A VERA is an air quality mitigation measure by which a developer can voluntarily enter into a contractual agreement with the SJVAPCD to mitigate a development project's impacts to air quality to a less than significant level, going beyond reduction achieved by compliance with SJVAPCD Rule 9150. Under the agreement, the developer provides funds to the SJVAPCD to administer the implementation of the VERA. The SJVAPCD then identifies and funds emissions reductions projects and verifies that the specified emission reductions have been successfully achieved. According to SJVAPCD Rule 9510, the cost of NO_X reductions for calendar year 2008 and beyond is $9,350 per ton of NO_X and the cost of PM_{10} reductions for calendar year 2008 and beyond is $9,011 per ton of PM_{10}. At these reduction costs, the cost to reduce NO_X and PM_{10} emissions for all projects to a less than significant impact would be $197,753 and $106,510, respectively. In total, the costs to reduce NO_X and PM_{10} emissions for all projects would be $304,263.

- The SJVAPCD verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. The initial agreement is generally based on the projected maximum emissions increases as calculated by the SJVAPCD approved air quality impact assessment, and contains the corresponding fiscal obligation. The final mitigation can be based on actual emissions related to the project as determined by actual equipment used, hours of operation, etc. After the project is mitigated, the SJVAPCD certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project specific emissions have been mitigated to less than significant.

- To ensure all feasible mitigation measures are incorporated into the project to reduce project air quality impacts to less than significant, the SJVAPCD recommends the project proponent and/or Lead Agency engage in discussion with the SJVAPCD to have the VERA adopted by the SJVAPCD prior to the finalization of the environmental document. This process will allow the environmental document to appropriately characterize the project emissions and

demonstrate that the project impact on air quality will be mitigated to less than significant under CEQA as a result of the implementation of the adopted VERA.

- The PM_{10} emissions from the construction of each facility are less than any applicable significance threshold. However, emissions from the construction of the Project (all three facilities) would exceed the significance thresholds for NO_X and PM_{10}, as currently scheduled. Staggering construction schedules for the Project, such as starting and finishing construction of the Fifth Standard Solar facility prior to, or after, constructing the Stonecrop Solar or Blackbriar Battery Storage facilities, would reduce PM_{10} emissions to a less than significant impact. If the construction of the facilities is staggered to reduce emissions below any significance threshold, the 12-month rolling total for PM_{10} construction emissions must not exceed any significance threshold; otherwise a VERA for PM_{10} emissions must be entered into with the SJVAPCD.

4.1.5 Conformity to Air Quality Management Plans

The SJVAPCD's *2016 Ozone Plan for 2008 8-Hour Ozone Standard*, *2013 Plan for the Revoked 1-Hour Ozone Standard*, *2007 PM_{10} Maintenance Plan and Request for Redesignation*, *2008 $PM_{2.5}$ Plan*, *2012 $PM_{2.5}$ Plan*, and *2015 Plan for the 1997 $PM_{2.5}$ Standard* outline a number of control strategies to help the SJVAPCD reach attainment with ambient air quality standards. The SJVAB is in attainment for CO, SO_2, and lead, so there are no attainment plans for those pollutants.

Control measures outlined in the ozone plans focus primarily on control of stationary and indirect sources such as housing and commercial developments that may generate substantial vehicle trips during operations. The primary source of criteria pollutant emissions generated by the Project would be associated with temporary construction and decommissioning activities (operation of the Project would require only minor use of equipment and generate a very small number of vehicle trips required to perform routine maintenance and panel washing). Therefore, the Project would not create a permanent substantial source of ozone precursor emissions, and would not obstruct implementation of the SJVAPCD's ozone attainment plan.

The PM_{10} maintenance plans focuses on how the SJVAPCD will maintain attainment of the federal 24-hour PM_{10} standard, which includes continued implementation of the 2007 PM_{10} Maintenance Plan (which focuses on implementing rules that limit PM_{10} emissions from various industrial sources as well as fugitive dust emissions). Construction of the Project must be in compliance with SJVAPCD's Regulation VIII, Fugitive PM_{10} Prohibitions; therefore, the Project would not obstruct implementation of the PM_{10} maintenance plan. Operation and maintenance activities associated with the Project would generate PM_{10} emissions from travel on unpaved roads; however, these activities would also be subject to rules set forth in Regulation VIII. Therefore, the Project would be regulated by applicable SJVAPCD rules and would not obstruct implementation of the PM_{10} maintenance plan.

The *2008 $PM_{2.5}$ Plan*, *2012 $PM_{2.5}$ Plan, and 2015 Plan for the 1997 $PM_{2.5}$ Standard* focus specifically on $PM_{2.5}$, although the control strategies from previous PM_{10} plans (particularly those related to fugitive dust control) have already improved the SJVAB's ambient $PM_{2.5}$ levels. Therefore, because fugitive dust controls continue to be addressed in the PM_{10} plan, the plans contain a comprehensive list of strict regulatory and incentive-based measures to reduce directly-

emitted $PM_{2.5}$ and precursor emissions. However, the Project would result in relatively negligible $PM_{2.5}$ emissions from those types of sources, with the vast majority of $PM_{2.5}$ emissions associated with the Project arising from the $PM_{2.5}$ component of fugitive dust. Nevertheless, the Project would be regulated by applicable SJVAPCD rules which would ensure compliance with the $PM_{2.5}$ plans, and therefore would not obstruct implementation of the plans. No impact would result relative to this criterion.

4.2 Greenhouse Gases

The majority of GHG emissions generated from the Project would be generated during construction and decommissioning from mobile sources due to the use of heavy-duty off-road equipment. GHG emissions also would be generated by construction worker daily commutes, from heavy-duty diesel tractor trailer trucks that would be required to haul materials and debris to/from the Project site and as a result of water use for dust control and other construction activities. Operational emissions of GHGs would be emitted during on-site and off-site motor vehicle travel, water usage, and potential leaks of SF_6 gas from high-voltage switchgear. **Table 8** presents the estimated GHG emissions during construction, operation, maintenance, and decommissioning of the Project.

TABLE 8
TOTAL PROJECT ANNUAL GHG EMISSIONS

Project	Phase	CO_2e (metric tons per year)
Fifth Standard Solar	Construction	4,391
	Operation and Maintenance	422
	Decommissioning	4,391
	Total	**9,204**
Stonecrop Solar	Construction	2,400
	Operation and Maintenance	270
	Decommissioning	2,400
	Total	**5,070**
Blackbriar Battery Storage	Construction	2,323
	Operation and Maintenance	268
	Decommissioning	2,323
	Total	**4,914**
	Project Total	**19,188**
	Annual Displaced Emissions	**-105,502**
	Annual Net Emissions	**-86,314**

NOTE: Blackbriar Battery Storage does not produce any electricity and does not displace emissions.

SOURCE: ESA 2019

High-voltage switchgear for the Project may have circuit breakers that contain SF_6 gas, a GHG with high global warming potential. SF_6 is used as an insulator and arc suppressor in the circuit breakers. Under normal operating conditions the SF_6 gas would be contained in the equipment and only released in a leak in the circuit breaker housing.

The electricity generated during the operation of the Project would be added to the power grid and displace electricity generated from fossil fuels. Displaced GHG emissions were calculated by using the average solar radiation hours per day and the current mix of power sources in California. Power sources other than coal and natural gas were not included. The Project would displace 86,314 metric tons of CO_2e per year and result in a net reduction of GHG emissions. Detailed calculations are provided in Appendix B.

As discussed above, the SJVAPCD has established a GHG significance threshold methodology that recommends projects be compared to a "business-as-usual" scenario, and that a project should be considered to not have a significant impact if it can be demonstrated to have a 29 percent reduction in GHG emissions from the "business-as-usual" scenario. The "business-as-usual" scenario for the Project assumes that there would be no changes to the methods used to generate electricity in California. As described in Table 8, the Project would result in an annual GHG emissions reduction of more than 86,314 metric tons CO_2e compared to the "business-as-usual scenario," a reduction of greater than 100 percent. Therefore, impacts associated with GHG emissions would be ***less than significant***.

4.3 Odors

Operation of the Project would not create objectionable odors. However, construction and decommissioning of the Project would include fuels and other odor sources, such as diesel equipment, which could result in the creation of objectionable odors. Since these activities would be temporary and spatially dispersed, and generally take place in rural areas, they would not affect a substantial number of people. Therefore, impacts from odors generated by construction and decommissioning of the Project would be ***less than significant***.

4.4 Valley Fever

Construction, operation, maintenance, and deconstruction of the Project have the potential to generate substantial amounts of fugitive dust that may suspend *Coccidioides* spores and expose sensitive receptors. West Fresno County is an area with elevated Valley Fever activity (County of Fresno, 2016).

Given the endemic nature of the disease and the amount of earthmoving activities in the County relating to agricultural activities; grading and excavation for new residential, commercial, and industrial development; and surface mining operations, it is not possible to attribute a specific case of Valley Fever to a specific earthmoving activity. However, it is likely that much of the population of Fresno County has already been exposed to Valley Fever as a result of historic and ongoing earthmoving activities and current levels of fugitive dust throughout the region. Such ground-disturbing activities represent a continual source of spores that contribute to the number of Valley Fever cases reported each year. Construction activities associated with the Project would result in similar localized ground disturbing activities to those that occur continually within the County.

Dust control measures, such as wetting the soil, would reduce fugitive dust and exposure of *Coccidioides* spores to workers. Fugitive dust control measures would ensure that fugitive dust that may potentially contain *Coccidioides* spores would be controlled to the maximum extent feasible. Additionally, worker's compliance with applicable Cal/OSHA protections would further protect human health from dust-related illnesses. Therefore, with the implementation of fugitive dust control measures and health and safety requirement, Valley Fever-related impacts to construction workers and sensitive receptors would be ***less than significant***.

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CHAPTER 5
Analysis of Cumulative Effects

5.1 Air Quality

The geographic scope considered for potential cumulative impacts to air quality is the SJVAB. As noted previously, the SJVAB is currently classified as nonattainment for the state 1-hour ozone standard and state and federal 8-hour ozone standards, the state 24-hour and annual PM_{10} standards, and the state annual and federal 24-hour $PM_{2.5}$ standards.

As described in Chapter 3, the SJVAPCD's GAMAQI recommends that any project that would have a significant direct or indirect air quality impact also should be considered to have a significant cumulative air quality impact. However, even if a project is below all significance thresholds, it still may cause or contribute to a significant cumulative impact when its incremental contribution is considered together with the impacts of past, present, or reasonably foreseeable future projects (SJVAPCD, 2015a). As shown in **Table 6**, emissions during construction for the Fifth Standard, Stonecrop, and Blackbriar facilities combined would exceed the SJVAPCD significance thresholds of 10 tons per year for NO_X and 15 tons per year for PM_{10}. The amount of pollutants emitted would have a cumulative impact on air quality in the SJVAB. Therefore, because of the increase in the ozone precursor, $NO_{X,}$ and the increase in particulate matter (for PM_{10}), the amount emitted of these pollutants during construction would have a significant cumulative impact on air quality in the SJVAB. $PM_{2.5}$ emissions are less than the applicable SJVAPCD significance threshold and would not be considered to contribute to a significant cumulative impact.

Various other solar projects are proposed within the SJVAB (County of Fresno, 2016b). The specific timing of the construction of the various solar projects is unknown. Other large projects would likely have individually considerable contributions during their construction phases and cumulative significant impacts are likely if construction periods for the projects. PM_{10} emissions during construction have the potential to cause significant impacts at a local scale if construction is taking place at nearby sites within the SJVAB simultaneously. The SJVAPCD recommends that if local cumulative PM_{10} impacts would be significant, the Lead Agency should require the project applicant to implement enhanced dust control measures. Enhanced dust control measures have been included as part of mitigation for fugitive dust impacts during construction. However, this impact remains significant and unavoidable even with mitigation. Consequently, without phased construction or a VERA, *the Project's contribution to a NO_x or PM_{10} related cumulative impact would be cumulatively considerable.* Similarly to construction, decommissioning of the Project could contribute to cumulative impacts regarding NO_X and PM_{10}. With either phased

construction or a VERA, *the Project's contribution to a NO_x or PM_{10} related cumulative impact would not be cumulatively considerable.*

With respect to pollutants that the SJVAB is in attainment for state and federal air quality standards (CO, NO_2, SO_2, and lead), Project-related construction emissions would not be cumulatively considerable because they would not contribute to an existing cumulative impact.

Emissions associated with operation and maintenance (see **Table 7**) would not be cumulatively considerable given that they would not result in potentially significant impacts.

5.2 Greenhouse Gas Emissions

GHG emissions are inherently a cumulative concern, in that the significance of GHG emissions is determined based on whether such emissions would have a cumulatively considerable impact on global climate change. Although the geographic scope of cumulative impacts related to GHG emissions is global, this analysis focuses on the state, the region, and the Project's direct and/or indirect generation or offset of GHG emissions. Increases to global temperatures are expected to continue for centuries as a result of human activities due to the time scales associated with climate processes and feedbacks, even if GHG concentrations are stabilized. As a result, substantial GHG emission reductions are necessary to avoid substantial increases in global air and ocean temperatures (SJVAPCD, 2009c). As shown in **Table 8**, the Project would result in a net reduction of 86,314 metric tons of CO_2e per year and would be consistent and not conflict with the state's GHG reduction goals. Therefore, the Project's incremental impact on GHG emissions would not be cumulatively considerable.

CHAPTER 6
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Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

STANTEC CONSULTING SERVICES INC.

Elena Nuño
Senior Project Manager/Air Quality Scientist
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elena.nuno@stantec.com

APPENDIX A

Emissions Summaries

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EMISSIONS SUMMARIES

Construction Unmitigated Emissions

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Fifth Standard Solar	1.69	**18.02**	12.24	0.05	**13.53**	2.17
Stonecrop Solar	0.92	9.87	6.71	0.03	7.04	1.15
Blackbriar Battery Storage	0.89	9.55	6.49	0.03	6.79	1.11
Total	3.50	37.44	25.44	0.11	27.35	4.42

Construction Exhaust Emission Reductions

Project	Unmitigated, tons per year		Mitigated, tons per year		Percent Reduction	
	NO_X	Exhaust PM_{10}	NO_X	Exhaust PM_{10}	NO_X	Exhaust PM_{10}
Fifth Standard Solar	18.02	0.7	15	0.43	17%	39%
Stonecrop Solar	9.87	0.38	8.21	0.24	17%	37%
Blackbriar Battery Storage	9.55	0.37	7.94	0.23	17%	38%
Total	37.44	1.45	31.15	0.9	17%	38%

Construction Mitigated Emissions

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Fifth Standard Solar	0.9278	15	14.41	0.05	13.28	1.95
Stonecrop Solar	0.51	8.21	7.9	0.03	6.89	1.03
Blackbriar Battery Storage	0.49	7.94	7.63	0.03	6.65	0.99
Total	1.9278	31.15	29.94	0.11	26.82	3.97
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	**Yes**	No	No	**Yes**	No

Operation Emissions

Project	Estimated Emissions, tons per year					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Fifth Standard Solar	0.25	2.33	1.54	0.01	0.11	0.09
Stonecrop Solar	0.16	1.52	1.04	< 0.01	0.06	0.06
Blackbriar Battery Storage	0.16	1.5	1.02	< 0.01	0.06	0.06
Total	0.57	5.35	3.6	0.01	0.23	0.21
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

Greenhouse Gas Emissions

Project	Phase	CO_2e (metric tons per year)
Fifth Standard Solar	Construction	4,391
	Operation and Maintenance	422
	Decommissioning	4,391
	Total	**9,204**
Stonecrop Solar	Construction	2,400
	Operation and Maintenance	270
	Decommissioning	2,400
	Total	**5,070**
Blackbriar Battery Storage	Construction	2,323
	Operation and Maintenance	268
	Decommissioning	2,323
	Total	**4,914**
	Project Total	**19,188**
	Annual Displaced Emissions	**-105,502**
	Annual Net Emissions	**-86,314**

APPENDIX B

CalEEMod Output Files

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e.on Gates Solar Project: Fifth Standard 150MW PV

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,600.00	User Defined Unit	1,600.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	307	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

e.on Gates Solar Project: Fifth Standard 150MW PV - Fresno County, Annual

Project Characteristics - Updated CO2 intensity factor for PG&E

Land Use - The Phelps Solar facility is anticipated to require up to 1,600 acres.

Construction Phase - Construction schedule adjusted based on anticipated project-specific construction schedule.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Trips and VMT - Worker trips per day based on maximum number of workers expected by phase. Vendor trips assumed to be half of the maximum number of workers expected by phase. No hauling would occur.

On-road Fugitive Dust - 0.7% of workers commute distance (.35 mile) assumed unpaved on-site and 1 to 2% of vendors driving distance (1 mile) assumed unpaved on-site.

Grading - Total acres disturbed equal to total project acres.

Vehicle Trips - Trip rates based on estimated operational personnel. C-W and C-NW trip % based on number of on-site personnel (or vendors) divided by total number of workers and vendors.

Construction Off-road Equipment Mitigation - Construction equipment mitigated with Tier 4 interim engines (for engines less than or equal to 81hp), and Tier 3 for all others.

Energy Mitigation -

Operational Off-Road Equipment - On-site personnel trucks, water trucks, and panel washing trucks assumed to be off-highway trucks. Panel washers assumed to be pressure washer.

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tblVehicleEF	HHD	2.79	0.02
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	2.39	2.31
tblVehicleEF	HHD	0.66	1.20
tblVehicleEF	HHD	0.66	51.36
tblVehicleEF	HHD	6,245.05	571.81
tblVehicleEF	HHD	1,601.10	1,582.77
tblVehicleEF	HHD	2.13	55.28
tblVehicleEF	HHD	26.42	4.10
tblVehicleEF	HHD	3.86	3.72
tblVehicleEF	HHD	20.63	3.61
tblVehicleEF	HHD	0.02	9.7120e-003

tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.08
tblVehicleEF	HHD	2.0000e-005	2.4060e-003
tblVehicleEF	HHD	0.02	8.9350e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9030e-003	8.9200e-003
tblVehicleEF	HHD	0.02	0.07
tblVehicleEF	HHD	1.8000e-005	1.9570e-003
tblVehicleEF	HHD	7.6000e-005	6.8950e-003
tblVehicleEF	HHD	1.4520e-003	0.14
tblVehicleEF	HHD	0.82	0.54
tblVehicleEF	HHD	3.8000e-005	3.1870e-003
tblVehicleEF	HHD	0.14	0.23
tblVehicleEF	HHD	9.7000e-005	0.55
tblVehicleEF	HHD	0.02	1.72
tblVehicleEF	HHD	0.06	5.9300e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.2000e-005	1.4600e-003
tblVehicleEF	HHD	7.6000e-005	6.8950e-003
tblVehicleEF	HHD	1.4520e-003	0.14
tblVehicleEF	HHD	0.94	0.61
tblVehicleEF	HHD	3.8000e-005	3.1870e-003
tblVehicleEF	HHD	0.16	0.26
tblVehicleEF	HHD	9.7000e-005	0.55
tblVehicleEF	HHD	0.02	1.84
tblVehicleEF	HHD	3.19	0.03

tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	4.50	4.38
tblVehicleEF	HHD	0.65	1.19
tblVehicleEF	HHD	0.77	89.53
tblVehicleEF	HHD	5,420.63	495.46
tblVehicleEF	HHD	1,601.10	1,582.77
tblVehicleEF	HHD	2.13	55.28
tblVehicleEF	HHD	24.49	3.80
tblVehicleEF	HHD	4.13	3.97
tblVehicleEF	HHD	20.64	4.08
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.08
tblVehicleEF	HHD	2.0000e-005	2.4060e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9030e-003	8.9200e-003
tblVehicleEF	HHD	0.02	0.07
tblVehicleEF	HHD	1.8000e-005	1.9570e-003
tblVehicleEF	HHD	1.0000e-005	7.6400e-004
tblVehicleEF	HHD	1.3050e-003	0.13
tblVehicleEF	HHD	0.94	0.61
tblVehicleEF	HHD	7.0000e-006	5.0700e-004
tblVehicleEF	HHD	0.14	0.23
tblVehicleEF	HHD	1.0500e-004	0.58

tblVehicleEF	HHD	0.02	2.70
tblVehicleEF	HHD	0.05	5.1380e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.4000e-005	2.0900e-003
tblVehicleEF	HHD	1.0000e-005	7.6400e-004
tblVehicleEF	HHD	1.3050e-003	0.13
tblVehicleEF	HHD	1.07	0.70
tblVehicleEF	HHD	7.0000e-006	5.0700e-004
tblVehicleEF	HHD	0.16	0.26
tblVehicleEF	HHD	1.0500e-004	0.58
tblVehicleEF	HHD	0.03	2.89
tblVehicleEF	LDA	4.3510e-003	9.2260e-003
tblVehicleEF	LDA	7.5130e-003	6.7750e-003
tblVehicleEF	LDA	0.59	0.78
tblVehicleEF	LDA	1.51	1.76
tblVehicleEF	LDA	268.73	238.12
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01

tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.10	0.12
tblVehicleEF	LDA	2.6910e-003	3.3700e-003
tblVehicleEF	LDA	6.4500e-004	7.6700e-004
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.11	0.13
tblVehicleEF	LDA	5.0340e-003	9.2260e-003
tblVehicleEF	LDA	6.2060e-003	6.7750e-003
tblVehicleEF	LDA	0.74	0.98
tblVehicleEF	LDA	1.26	1.32
tblVehicleEF	LDA	295.91	262.23
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.09	0.10
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.10	0.08
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.23

tblVehicleEF	LDA	0.08	0.10
tblVehicleEF	LDA	2.9650e-003	3.7150e-003
tblVehicleEF	LDA	6.4000e-004	7.6000e-004
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.10	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.04	0.23
tblVehicleEF	LDA	0.09	0.10
tblVehicleEF	LDA	4.0730e-003	9.2260e-003
tblVehicleEF	LDA	8.9090e-003	6.7750e-003
tblVehicleEF	LDA	0.54	0.72
tblVehicleEF	LDA	1.85	2.32
tblVehicleEF	LDA	257.81	228.43
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.06	0.09
tblVehicleEF	LDA	0.11	0.12
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.12	0.15

tblVehicleEF	LDA	2.5810e-003	3.2310e-003
tblVehicleEF	LDA	6.5100e-004	7.7700e-004
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.13	0.16
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	1.66	1.88
tblVehicleEF	LDT1	4.56	4.44
tblVehicleEF	LDT1	330.29	286.56
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.18	0.21
tblVehicleEF	LDT1	0.26	0.24
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.32	0.32
tblVehicleEF	LDT1	3.3240e-003	3.9060e-003

tblVehicleEF	LDT1	8.3600e-004	9.2500e-004
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.35	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.02	2.28
tblVehicleEF	LDT1	3.78	3.37
tblVehicleEF	LDT1	361.85	313.77
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.16	0.20
tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.27	0.26
tblVehicleEF	LDT1	3.6450e-003	4.2860e-003
tblVehicleEF	LDT1	8.2200e-004	9.0700e-004

tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.29	0.28
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	1.55	1.75
tblVehicleEF	LDT1	5.62	5.82
tblVehicleEF	LDT1	317.61	275.63
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.20	0.23
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.32	1.02
tblVehicleEF	LDT1	0.39	0.40
tblVehicleEF	LDT1	3.1960e-003	3.7540e-003
tblVehicleEF	LDT1	8.5500e-004	9.5000e-004
tblVehicleEF	LDT1	0.07	0.05

tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.32	1.02
tblVehicleEF	LDT1	0.42	0.43
tblVehicleEF	LDT2	6.9890e-003	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.89	1.10
tblVehicleEF	LDT2	2.27	2.62
tblVehicleEF	LDT2	375.67	353.20
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.11	0.14
tblVehicleEF	LDT2	0.20	0.22
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.15	0.18
tblVehicleEF	LDT2	3.7640e-003	4.5830e-003
tblVehicleEF	LDT2	9.0200e-004	1.0500e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14

tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.17	0.20
tblVehicleEF	LDT2	8.0510e-003	0.01
tblVehicleEF	LDT2	9.4610e-003	0.01
tblVehicleEF	LDT2	1.10	1.36
tblVehicleEF	LDT2	1.89	1.97
tblVehicleEF	LDT2	412.53	387.93
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	4.1360e-003	5.0390e-003
tblVehicleEF	LDT2	8.9500e-004	1.0390e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13

tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.14	0.16
tblVehicleEF	LDT2	6.5610e-003	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.82	1.02
tblVehicleEF	LDT2	2.78	3.44
tblVehicleEF	LDT2	360.87	339.25
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.22	0.24
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.18	0.23
tblVehicleEF	LDT2	3.6150e-003	4.4010e-003
tblVehicleEF	LDT2	9.1100e-004	1.0650e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.03

tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.20	0.24
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.48	1.64
tblVehicleEF	LHD1	2.81	4.04
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.24	1.31
tblVehicleEF	LHD1	1.02	1.14
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03

tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.28	0.34
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9250e-003	7.9200e-003
tblVehicleEF	LHD1	3.5600e-004	4.6200e-004
tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.31	0.36
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.52	1.68
tblVehicleEF	LHD1	2.61	2.92
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.12	1.23
tblVehicleEF	LHD1	0.96	1.08
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004

tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	9.1960e-003	7.0320e-003
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.17	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.27	0.28
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9250e-003	7.9210e-003
tblVehicleEF	LHD1	3.5200e-004	4.4300e-004
tblVehicleEF	LHD1	9.1960e-003	7.0320e-003
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.21	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.29	0.30
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.45	1.60
tblVehicleEF	LHD1	3.07	5.43
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.29	1.35
tblVehicleEF	LHD1	1.09	1.22
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.34	0.42

tblVehicleEF	LHD1	0.30	0.41
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9240e-003	7.9200e-003
tblVehicleEF	LHD1	3.6000e-004	4.8600e-004
tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.20	0.18
tblVehicleEF	LHD1	0.34	0.42
tblVehicleEF	LHD1	0.33	0.44
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.04
tblVehicleEF	LHD2	1.49	2.10
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.84	1.78
tblVehicleEF	LHD2	0.65	0.69
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004
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tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.15	0.18
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.20
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.85	1.05

tblVehicleEF	LHD2	1.39	1.53
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.75	1.69
tblVehicleEF	LHD2	0.62	0.65
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	2.8500e-004	2.7700e-004

tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.03
tblVehicleEF	LHD2	1.62	2.80
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.88	1.82
tblVehicleEF	LHD2	0.70	0.74
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04
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tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.16	0.22
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
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tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
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tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.17	0.23
tblVehicleEF	MCY	0.40	0.00
tblVehicleEF	MCY	0.17	0.00
tblVehicleEF	MCY	22.73	30.58
tblVehicleEF	MCY	9.98	10.57
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.19	1.27
tblVehicleEF	MCY	0.32	0.31

tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47
tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.29	2.97
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.26	2.17
tblVehicleEF	MCY	2.0690e-003	2.2610e-003
tblVehicleEF	MCY	7.1600e-004	6.6700e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47
tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.77	3.23
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.46	2.33
tblVehicleEF	MCY	0.39	0.00
tblVehicleEF	MCY	0.14	0.00
tblVehicleEF	MCY	23.07	31.02
tblVehicleEF	MCY	9.18	8.97
tblVehicleEF	MCY	163.41	155.29

tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.03	1.10
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.22	2.90
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	1.91	1.83
tblVehicleEF	MCY	2.0720e-003	2.2660e-003
tblVehicleEF	MCY	6.9200e-004	6.3100e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.68	3.17
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	2.08	1.97
tblVehicleEF	MCY	0.42	0.00
tblVehicleEF	MCY	0.20	0.00

tblVehicleEF	MCY	24.56	33.17
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tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.30	1.38
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
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tblVehicleEF	MCY	0.74	1.68
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tblVehicleEF	MCY	2.1020e-003	2.3060e-003
tblVehicleEF	MCY	7.5500e-004	7.1700e-004
tblVehicleEF	MCY	0.38	0.25
tblVehicleEF	MCY	1.05	0.45
tblVehicleEF	MCY	0.23	0.12
tblVehicleEF	MCY	2.93	3.38
tblVehicleEF	MCY	0.74	1.68

tblVehicleEF	MCY	2.97	2.82
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.62	1.87
tblVehicleEF	MDV	4.21	4.68
tblVehicleEF	MDV	515.99	470.46
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.21	0.27
tblVehicleEF	MDV	0.39	0.43
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.34	0.39
tblVehicleEF	MDV	5.1750e-003	5.8400e-003
tblVehicleEF	MDV	1.2390e-003	1.3540e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.37	0.42

tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.98	2.29
tblVehicleEF	MDV	3.53	3.54
tblVehicleEF	MDV	565.23	516.17
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.37	0.39
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
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tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.28	0.32
tblVehicleEF	MDV	5.6720e-003	6.4150e-003
tblVehicleEF	MDV	1.2260e-003	1.3340e-003
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.30	0.34
tblVehicleEF	MDV	0.01	0.02

tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	1.52	1.75
tblVehicleEF	MDV	5.12	6.12
tblVehicleEF	MDV	496.21	452.10
tblVehicleEF	MDV	116.39	105.12
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tblVehicleEF	MDV	0.44	0.47
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
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tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.40	0.48
tblVehicleEF	MDV	4.9760e-003	5.6100e-003
tblVehicleEF	MDV	1.2550e-003	1.3800e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.44	0.51
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00

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tblVehicleEF	MH	7.32	7.33
tblVehicleEF	MH	1,232.21	715.32
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tblVehicleEF	MH	2.10	1.71
tblVehicleEF	MH	0.99	0.76
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.17	0.12
tblVehicleEF	MH	0.03	1.77
tblVehicleEF	MH	0.44	0.40
tblVehicleEF	MH	0.01	7.7070e-003
tblVehicleEF	MH	7.1900e-004	4.2800e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.23	0.15
tblVehicleEF	MH	0.03	1.77

tblVehicleEF	MH	0.48	0.43
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.98	2.48
tblVehicleEF	MH	6.63	5.21
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
tblVehicleEF	MH	1.95	1.59
tblVehicleEF	MH	0.93	0.72
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	4.16	3.02
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	1.02	0.77
tblVehicleEF	MH	0.17	0.12
tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.41	0.33
tblVehicleEF	MH	0.01	7.7080e-003
tblVehicleEF	MH	7.0800e-004	3.9300e-004
tblVehicleEF	MH	4.16	3.02
tblVehicleEF	MH	0.12	0.09

tblVehicleEF	MH	1.02	0.77
tblVehicleEF	MH	0.24	0.15
tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.44	0.35
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	3.72	2.33
tblVehicleEF	MH	8.22	10.01
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
tblVehicleEF	MH	2.17	1.77
tblVehicleEF	MH	1.06	0.81
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16
tblVehicleEF	MH	0.16	0.12
tblVehicleEF	MH	0.03	1.89
tblVehicleEF	MH	0.47	0.50
tblVehicleEF	MH	0.01	7.7060e-003

tblVehicleEF	MH	7.3500e-004	4.7300e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16
tblVehicleEF	MH	0.22	0.14
tblVehicleEF	MH	0.03	1.89
tblVehicleEF	MH	0.52	0.53
tblVehicleEF	MHD	0.02	8.5650e-003
tblVehicleEF	MHD	8.8450e-003	6.9360e-003
tblVehicleEF	MHD	0.07	0.00
tblVehicleEF	MHD	0.42	1.93
tblVehicleEF	MHD	0.58	0.89
tblVehicleEF	MHD	4.42	17.83
tblVehicleEF	MHD	212.61	577.48
tblVehicleEF	MHD	1,213.16	1,020.46
tblVehicleEF	MHD	29.48	52.54
tblVehicleEF	MHD	1.49	5.74
tblVehicleEF	MHD	2.52	2.84
tblVehicleEF	MHD	16.04	1.63
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003

tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	1.4030e-003	3.7470e-003
tblVehicleEF	MHD	0.04	0.11
tblVehicleEF	MHD	0.05	0.18
tblVehicleEF	MHD	5.6100e-004	1.6450e-003
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.26	1.08
tblVehicleEF	MHD	2.0340e-003	5.9880e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7200e-004	8.8400e-004
tblVehicleEF	MHD	1.4030e-003	3.7470e-003
tblVehicleEF	MHD	0.04	0.11
tblVehicleEF	MHD	0.06	0.21
tblVehicleEF	MHD	5.6100e-004	1.6450e-003
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.28	1.16
tblVehicleEF	MHD	0.02	8.0720e-003
tblVehicleEF	MHD	8.9450e-003	6.9360e-003
tblVehicleEF	MHD	0.07	0.00
tblVehicleEF	MHD	0.30	1.41
tblVehicleEF	MHD	0.58	0.91
tblVehicleEF	MHD	4.09	12.96
tblVehicleEF	MHD	225.31	611.79
tblVehicleEF	MHD	1,213.16	1,020.46

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tblVehicleEF	MHD	2.39	2.70
tblVehicleEF	MHD	16.01	1.54
tblVehicleEF	MHD	9.0550e-003	0.02
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	8.6630e-003	0.02
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	3.3430e-003	9.0420e-003
tblVehicleEF	MHD	0.05	0.13
tblVehicleEF	MHD	0.05	0.17
tblVehicleEF	MHD	1.3130e-003	3.9120e-003
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.49
tblVehicleEF	MHD	0.25	0.88
tblVehicleEF	MHD	2.1550e-003	6.3440e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.6700e-004	8.0100e-004
tblVehicleEF	MHD	3.3430e-003	9.0420e-003
tblVehicleEF	MHD	0.05	0.13
tblVehicleEF	MHD	0.05	0.20

tblVehicleEF	MHD	1.3130e-003	3.9120e-003
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.49
tblVehicleEF	MHD	0.27	0.94
tblVehicleEF	MHD	0.02	9.2460e-003
tblVehicleEF	MHD	8.7400e-003	6.9360e-003
tblVehicleEF	MHD	0.08	0.00
tblVehicleEF	MHD	0.57	2.66
tblVehicleEF	MHD	0.57	0.89
tblVehicleEF	MHD	4.84	24.05
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tblVehicleEF	MHD	1,213.16	1,020.46
tblVehicleEF	MHD	29.48	52.54
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tblVehicleEF	MHD	2.56	2.90
tblVehicleEF	MHD	16.09	1.74
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	3.6800e-004	9.4700e-004

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tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.28	1.35
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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7900e-004	9.9000e-004
tblVehicleEF	MHD	3.6800e-004	9.4700e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.06	0.23
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.30	1.44
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tblVehicleEF	OBUS	0.02	2.6780e-003
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tblVehicleEF	OBUS	1.04	1.58
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tblVehicleEF	OBUS	174.61	545.88
tblVehicleEF	OBUS	1,363.34	1,029.67
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tblVehicleEF	OBUS	2.79	2.83

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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	5.0600e-004	9.3200e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.5580e-003
tblVehicleEF	OBUS	0.01	0.03
tblVehicleEF	OBUS	7.8300e-004	7.1400e-004
tblVehicleEF	OBUS	2.9240e-003	1.2430e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.44
tblVehicleEF	OBUS	9.1600e-004	4.1900e-004
tblVehicleEF	OBUS	0.11	0.16
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tblVehicleEF	OBUS	0.47	0.72
tblVehicleEF	OBUS	1.6770e-003	5.6610e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.8800e-004	5.7900e-004
tblVehicleEF	OBUS	2.9240e-003	1.2430e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.06	0.50
tblVehicleEF	OBUS	9.1600e-004	4.1900e-004
tblVehicleEF	OBUS	0.14	0.19
tblVehicleEF	OBUS	0.04	0.27

tblVehicleEF	OBUS	0.52	0.77
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.02	2.6780e-003
tblVehicleEF	OBUS	0.04	0.00
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tblVehicleEF	OBUS	7.00	8.88
tblVehicleEF	OBUS	184.04	578.31
tblVehicleEF	OBUS	1,363.34	1,029.67
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tblVehicleEF	OBUS	2.64	2.66
tblVehicleEF	OBUS	3.96	1.52
tblVehicleEF	OBUS	4.4600e-004	8.5400e-003
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	4.2700e-004	7.8570e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.5580e-003
tblVehicleEF	OBUS	0.01	0.03
tblVehicleEF	OBUS	7.8300e-004	7.1400e-004
tblVehicleEF	OBUS	6.7570e-003	2.8800e-003
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tblVehicleEF	OBUS	0.05	0.41
tblVehicleEF	OBUS	1.9960e-003	9.2500e-004

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tblVehicleEF	OBUS	0.06	0.47
tblVehicleEF	OBUS	1.9960e-003	9.2500e-004
tblVehicleEF	OBUS	0.14	0.19
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.48	0.64
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tblVehicleEF	OBUS	0.02	2.6780e-003
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tblVehicleEF	OBUS	1,363.34	1,029.67
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tblVehicleEF	OBUS	0.13	0.09

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tblVehicleEF	OBUS	0.01	0.04
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tblVehicleEF	SBUS	4.1100e-004	7.5290e-003

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tblVehicleEF	SBUS	0.16	0.55
tblVehicleEF	SBUS	0.02	2.28
tblVehicleEF	SBUS	0.30	3.24
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tblVehicleEF	UBUS	0.07	0.00
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tblVehicleEF	UBUS	10.27	13.14
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tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
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tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	6.5800e-003	6.3350e-003
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tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
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tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
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tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	0.02	0.01

tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003
tblVehicleEF	UBUS	0.72	0.56
tblVehicleEF	UBUS	0.01	0.44
tblVehicleEF	UBUS	0.78	0.95
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4060e-003	6.2200e-004
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003
tblVehicleEF	UBUS	2.86	0.63
tblVehicleEF	UBUS	0.01	0.44
tblVehicleEF	UBUS	0.86	1.01
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	8.73	3.91
tblVehicleEF	UBUS	12.62	16.53
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	9.15	8.93
tblVehicleEF	UBUS	14.13	2.10
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003

tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08
tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	0.71	0.54
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.00	1.25
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4810e-003	7.2800e-004
tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08
tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	2.84	0.60
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.10	1.33
tblVehicleTrips	CNW_TTP	0.00	80.00
tblVehicleTrips	CW_TTP	0.00	20.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

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					
2020	1.6869	18.0181	12.2414	0.0480	20.5982	0.6967	21.2948	2.2984	0.6524	2.9508	0.0000	4,378.8787	4,378.8787	0.5018	0.0000	4,391.4248
Maximum	**1.6869**	**18.0181**	**12.2414**	**0.0480**	**20.5982**	**0.6967**	**21.2948**	**2.2984**	**0.6524**	**2.9508**	**0.0000**	**4,378.8787**	**4,378.8787**	**0.5018**	**0.0000**	**4,391.4248**

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					
2020	0.9278	14.9962	14.4141	0.0480	12.8335	0.4335	13.2670	1.5145	0.4305	1.9450	0.0000	4,378.8767	4,378.8767	0.5018	0.0000	4,391.4228
Maximum	**0.9278**	**14.9962**	**14.4141**	**0.0480**	**12.8335**	**0.4335**	**13.2670**	**1.5145**	**0.4305**	**1.9450**	**0.0000**	**4,378.8767**	**4,378.8767**	**0.5018**	**0.0000**	**4,391.4228**

	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	**45.00**	**16.77**	**-17.75**	**0.00**	**37.70**	**37.77**	**37.70**	**34.11**	**34.01**	**34.09**	**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)
3	2-8-2020	5-7-2020	1.3966	0.8964
4	5-8-2020	8-7-2020	7.1931	5.8375
5	8-8-2020	9-30-2020	4.5715	3.7611
		Highest	7.1931	5.8375

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0153	0.0000	0.0153	3.7600e-003	0.0000	3.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.2480	2.3331	1.5272	4.7800e-003		0.0913	0.0913		0.0851	0.0851	0.0000	418.5150	418.5150	0.1250	0.0000	421.6408
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	**0.2493**	**2.3333**	**1.5420**	**4.7800e-003**	**0.0153**	**0.0914**	**0.1067**	**3.7600e-003**	**0.0852**	**0.0889**	**0.0000**	**418.5436**	**418.5436**	**0.1251**	**0.0000**	**421.6713**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0153	0.0000	0.0153	3.7600e-003	0.0000	3.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.2480	2.3331	1.5272	4.7800e-003		0.0913	0.0913		0.0851	0.0851	0.0000	418.5150	418.5150	0.1250	0.0000	421.6408
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	**0.2493**	**2.3333**	**1.5420**	**4.7800e-003**	**0.0153**	**0.0914**	**0.1067**	**3.7600e-003**	**0.0852**	**0.0889**	**0.0000**	**418.5436**	**418.5436**	**0.1251**	**0.0000**	**421.6713**

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

3.0 Construction Detail

Construction Phase

e.on Gates Solar Project: Fifth Standard 150MW PV - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/8/2020	5	6	
2	Grading/Excavation	Grading	4/9/2020	4/29/2020	5	15	
3	Drainage/Utilities/Sub-Grade	Trenching	4/30/2020	5/20/2020	5	15	
4	Construction	Building Construction	5/21/2020	12/13/2020	5	149	
5	Paving	Paving	12/16/2020	12/30/2020	5	11	

Acres of Grading (Site Preparation Phase): 1600

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	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Dumpers/Tenders	5	8.00	16	0.38
Site Preparation	Forklifts	2	8.00	89	0.20
Site Preparation	Generator Sets	4	8.00	84	0.74
Site Preparation	Graders	2	8.00	174	0.41
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Scrapers	2	8.00	361	0.48
Site Preparation	Skid Steer Loaders	2	8.00	64	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Crawler Tractors	2	8.00	208	0.43

Grading/Excavation	Dumpers/Tenders	5	8.00	16	0.38
Grading/Excavation	Excavators	0	8.00	162	0.38
Grading/Excavation	Forklifts	2	8.00	89	0.20
Grading/Excavation	Generator Sets	4	8.00	84	0.74
Grading/Excavation	Graders	2	8.00	174	0.41
Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Grading/Excavation	Rollers	2	8.00	80	0.38
Grading/Excavation	Rubber Tired Dozers	0	8.00	255	0.40
Grading/Excavation	Scrapers	2	8.00	361	0.48
Grading/Excavation	Skid Steer Loaders	2	8.00	64	0.37
Grading/Excavation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Drainage/Utilities/Sub-Grade	Crawler Tractors	2	8.00	208	0.43
Drainage/Utilities/Sub-Grade	Dumpers/Tenders	5	8.00	16	0.38
Drainage/Utilities/Sub-Grade	Forklifts	2	8.00	89	0.20
Drainage/Utilities/Sub-Grade	Generator Sets	4	8.00	84	0.74
Drainage/Utilities/Sub-Grade	Graders	2	8.00	174	0.41
Drainage/Utilities/Sub-Grade	Plate Compactors	2	8.00	8	0.43
Drainage/Utilities/Sub-Grade	Scrapers	2	8.00	361	0.48
Drainage/Utilities/Sub-Grade	Skid Steer Loaders	2	8.00	64	0.37
Drainage/Utilities/Sub-Grade	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Construction	Bore/Drill Rigs	10	8.00	205	0.50
Construction	Cement and Mortar Mixers	10	8.00	9	0.56
Construction	Concrete/Industrial Saws	3	4.00	81	0.73
Construction	Cranes	1	8.00	226	0.29
Construction	Dumpers/Tenders	5	8.00	16	0.38
Construction	Excavators	2	8.00	162	0.38
Construction	Forklifts	5	8.00	89	0.20

Construction	Generator Sets	4	8.00	84	0.74
Construction	Pavers	1	8.00	125	0.42
Construction	Paving Equipment	1	8.00	130	0.36
Construction	Plate Compactors	1	8.00	8	0.43
Construction	Rollers	1	8.00	80	0.38
Construction	Skid Steer Loaders	2	8.00	64	0.37
Construction	Tractors/Loaders/Backhoes	7	8.00	97	0.37
Construction	Trenchers	10	8.00	80	0.50
Construction	Welders	0	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38

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	25	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	27	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Sub-Grade	25	80.00	40.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Construction	63	200.00	100.00	0.00	50.00	101.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	20.00	10.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					0.8484	0.0000	0.8484	0.0916	0.0000	0.0916	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.2445	0.1782	3.2000e-004		0.0118	0.0118		0.0111	0.0111	0.0000	28.1415	28.1415	7.0700e-003	0.0000	28.3182
Total	**0.0235**	**0.2445**	**0.1782**	**3.2000e-004**	**0.8484**	**0.0118**	**0.8602**	**0.0916**	**0.0111**	**0.1027**	**0.0000**	**28.1415**	**28.1415**	**7.0700e-003**	**0.0000**	**28.3182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3100e-003	0.0325	5.8400e-003	1.2000e-004	0.1001	3.1000e-004	0.1004	0.0106	3.0000e-004	0.0109	0.0000	11.0353	11.0353	3.2000e-004	0.0000	11.0434
Worker	2.2900e-003	1.6900e-003	0.0162	5.0000e-005	0.0733	3.0000e-005	0.0733	8.2200e-003	3.0000e-005	8.2500e-003	0.0000	4.6936	4.6936	1.1000e-004	0.0000	4.6964
Total	**3.6000e-003**	**0.0342**	**0.0221**	**1.7000e-004**	**0.1734**	**3.4000e-004**	**0.1737**	**0.0188**	**3.3000e-004**	**0.0192**	**0.0000**	**15.7289**	**15.7289**	**4.3000e-004**	**0.0000**	**15.7398**

3.2 Site Preparation - 2020

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					0.3818	0.0000	0.3818	0.0412	0.0000	0.0412	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.1509	0.1932	3.2000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003	0.0000	28.1414	28.1414	7.0700e-003	0.0000	28.3182
Total	**7.2600e-003**	**0.1509**	**0.1932**	**3.2000e-004**	**0.3818**	**7.9200e-003**	**0.3897**	**0.0412**	**7.9200e-003**	**0.0491**	**0.0000**	**28.1414**	**28.1414**	**7.0700e-003**	**0.0000**	**28.3182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3100e-003	0.0325	5.8400e-003	1.2000e-004	0.0626	3.1000e-004	0.0629	6.8700e-003	3.0000e-004	7.1700e-003	0.0000	11.0353	11.0353	3.2000e-004	0.0000	11.0434
Worker	2.2900e-003	1.6900e-003	0.0162	5.0000e-005	0.0470	3.0000e-005	0.0470	5.6000e-003	3.0000e-005	5.6300e-003	0.0000	4.6936	4.6936	1.1000e-004	0.0000	4.6964
Total	**3.6000e-003**	**0.0342**	**0.0221**	**1.7000e-004**	**0.1096**	**3.4000e-004**	**0.1099**	**0.0125**	**3.3000e-004**	**0.0128**	**0.0000**	**15.7289**	**15.7289**	**4.3000e-004**	**0.0000**	**15.7398**

3.3 Grading/Excavation - 2020

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					0.8484	0.0000	0.8484	0.0916	0.0000	0.0916	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0619	0.6425	0.4739	8.5000e-004		0.0315	0.0315		0.0295	0.0295	0.0000	73.8110	73.8110	0.0188	0.0000	74.2807
Total	**0.0619**	**0.6425**	**0.4739**	**8.5000e-004**	**0.8484**	**0.0315**	**0.8799**	**0.0916**	**0.0295**	**0.1212**	**0.0000**	**73.8110**	**73.8110**	**0.0188**	**0.0000**	**74.2807**

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	3.2700e-003	0.0812	0.0146	2.9000e-004	0.2503	7.9000e-004	0.2511	0.0266	7.5000e-004	0.0273	0.0000	27.5883	27.5883	8.1000e-004	0.0000	27.6084
Worker	5.7300e-003	4.2400e-003	0.0406	1.3000e-004	0.1831	8.0000e-005	0.1832	0.0206	7.0000e-005	0.0206	0.0000	11.7339	11.7339	2.9000e-004	0.0000	11.7410
Total	**9.0000e-003**	**0.0855**	**0.0552**	**4.2000e-004**	**0.4334**	**8.7000e-004**	**0.4343**	**0.0471**	**8.2000e-004**	**0.0480**	**0.0000**	**39.3222**	**39.3222**	**1.1000e-003**	**0.0000**	**39.3495**

3.3 Grading/Excavation - 2020

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					0.3818	0.0000	0.3818	0.0412	0.0000	0.0412	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.3945	0.5129	8.5000e-004		0.0199	0.0199		0.0199	0.0199	0.0000	73.8109	73.8109	0.0188	0.0000	74.2807
Total	**0.0190**	**0.3945**	**0.5129**	**8.5000e-004**	**0.3818**	**0.0199**	**0.4016**	**0.0412**	**0.0199**	**0.0611**	**0.0000**	**73.8109**	**73.8109**	**0.0188**	**0.0000**	**74.2807**

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	3.2700e-003	0.0812	0.0146	2.9000e-004	0.1565	7.9000e-004	0.1573	0.0172	7.5000e-004	0.0179	0.0000	27.5883	27.5883	8.1000e-004	0.0000	27.6084
Worker	5.7300e-003	4.2400e-003	0.0406	1.3000e-004	0.1175	8.0000e-005	0.1175	0.0140	7.0000e-005	0.0141	0.0000	11.7339	11.7339	2.9000e-004	0.0000	11.7410
Total	**9.0000e-003**	**0.0855**	**0.0552**	**4.2000e-004**	**0.2739**	**8.7000e-004**	**0.2748**	**0.0312**	**8.2000e-004**	**0.0320**	**0.0000**	**39.3222**	**39.3222**	**1.1000e-003**	**0.0000**	**39.3495**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0588	0.6113	0.4455	8.1000e-004		0.0295	0.0295		0.0277	0.0277	0.0000	70.3537	70.3537	0.0177	0.0000	70.7955
Total	**0.0588**	**0.6113**	**0.4455**	**8.1000e-004**		**0.0295**	**0.0295**		**0.0277**	**0.0277**	**0.0000**	**70.3537**	**70.3537**	**0.0177**	**0.0000**	**70.7955**

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	5.2300e-003	0.1300	0.0234	4.6000e-004	0.4005	1.2600e-003	0.4017	0.0425	1.2100e-003	0.0437	0.0000	44.1413	44.1413	1.2900e-003	0.0000	44.1735
Worker	9.1700e-003	6.7800e-003	0.0649	2.1000e-004	0.2930	1.3000e-004	0.2931	0.0329	1.2000e-004	0.0330	0.0000	18.7742	18.7742	4.6000e-004	0.0000	18.7856
Total	**0.0144**	**0.1368**	**0.0883**	**6.7000e-004**	**0.6935**	**1.3900e-003**	**0.6948**	**0.0754**	**1.3300e-003**	**0.0767**	**0.0000**	**62.9155**	**62.9155**	**1.7500e-003**	**0.0000**	**62.9591**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0182	0.3773	0.4831	8.1000e-004		0.0198	0.0198		0.0198	0.0198	0.0000	70.3536	70.3536	0.0177	0.0000	70.7954
Total	**0.0182**	**0.3773**	**0.4831**	**8.1000e-004**		**0.0198**	**0.0198**		**0.0198**	**0.0198**	**0.0000**	**70.3536**	**70.3536**	**0.0177**	**0.0000**	**70.7954**

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	5.2300e-003	0.1300	0.0234	4.6000e-004	0.2504	1.2600e-003	0.2516	0.0275	1.2100e-003	0.0287	0.0000	44.1413	44.1413	1.2900e-003	0.0000	44.1735
Worker	9.1700e-003	6.7800e-003	0.0649	2.1000e-004	0.1879	1.3000e-004	0.1881	0.0224	1.2000e-004	0.0225	0.0000	18.7742	18.7742	4.6000e-004	0.0000	18.7856
Total	**0.0144**	**0.1368**	**0.0883**	**6.7000e-004**	**0.4383**	**1.3900e-003**	**0.4397**	**0.0499**	**1.3300e-003**	**0.0512**	**0.0000**	**62.9155**	**62.9155**	**1.7500e-003**	**0.0000**	**62.9591**

3.5 Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0329	10.0814	8.2162	0.0169		0.5522	0.5522		0.5158	0.5158	0.0000	1,460.8585	1,460.8585	0.4004	0.0000	1,470.8680
Total	**1.0329**	**10.0814**	**8.2162**	**0.0169**		**0.5522**	**0.5522**		**0.5158**	**0.5158**	**0.0000**	**1,460.8585**	**1,460.8585**	**0.4004**	**0.0000**	**1,470.8680**

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	0.2493	5.9266	1.0864	0.0226	10.2955	0.0623	10.3577	1.1540	0.0596	1.2136	0.0000	2,146.7316	2,146.7316	0.0401	0.0000	2,147.7334
Worker	0.2246	0.1660	1.5908	5.0900e-003	7.1785	3.1400e-003	7.1817	0.8060	2.8900e-003	0.8089	0.0000	459.9679	459.9679	0.0112	0.0000	460.2477
Total	**0.4739**	**6.0926**	**2.6773**	**0.0277**	**17.4740**	**0.0654**	**17.5394**	**1.9600**	**0.0625**	**2.0225**	**0.0000**	**2,606.6995**	**2,606.6995**	**0.0513**	**0.0000**	**2,607.9811**

3.5 Construction - 2020

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	0.3772	7.6485	10.2838	0.0169		0.3155	0.3155		0.3155	0.3155	0.0000	1,460.8568	1,460.8568	0.4004	0.0000	1,470.8662
Total	**0.3772**	**7.6485**	**10.2838**	**0.0169**		**0.3155**	**0.3155**		**0.3155**	**0.3155**	**0.0000**	**1,460.8568**	**1,460.8568**	**0.4004**	**0.0000**	**1,470.8662**

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	0.2493	5.9266	1.0864	0.0226	6.5632	0.0623	6.6254	0.7808	0.0596	0.8403	0.0000	2,146.7316	2,146.7316	0.0401	0.0000	2,147.7334
Worker	0.2246	0.1660	1.5908	5.0900e-003	4.6045	3.1400e-003	4.6077	0.5486	2.8900e-003	0.5515	0.0000	459.9679	459.9679	0.0112	0.0000	460.2477
Total	**0.4739**	**6.0926**	**2.6773**	**0.0277**	**11.1677**	**0.0654**	**11.2331**	**1.3294**	**0.0625**	**1.3918**	**0.0000**	**2,606.6995**	**2,606.6995**	**0.0513**	**0.0000**	**2,607.9811**

3.6 Paving - 2020

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	6.1700e-003	0.0644	0.0685	1.1000e-004		3.3300e-003	3.3300e-003		3.0700e-003	3.0700e-003	0.0000	9.5135	9.5135	3.0800e-003	0.0000	9.5904
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1700e-003**	**0.0644**	**0.0685**	**1.1000e-004**		**3.3300e-003**	**3.3300e-003**		**3.0700e-003**	**3.0700e-003**	**0.0000**	**9.5135**	**9.5135**	**3.0800e-003**	**0.0000**	**9.5904**

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	9.6000e-004	0.0238	4.2800e-003	9.0000e-005	0.0734	2.3000e-004	0.0737	7.7900e-003	2.2000e-004	8.0100e-003	0.0000	8.0926	8.0926	2.4000e-004	0.0000	8.0985
Worker	1.6800e-003	1.2400e-003	0.0119	4.0000e-005	0.0537	2.0000e-005	0.0537	6.0300e-003	2.0000e-005	6.0500e-003	0.0000	3.4419	3.4419	8.0000e-005	0.0000	3.4440
Total	**2.6400e-003**	**0.0251**	**0.0162**	**1.3000e-004**	**0.1271**	**2.5000e-004**	**0.1274**	**0.0138**	**2.4000e-004**	**0.0141**	**0.0000**	**11.5345**	**11.5345**	**3.2000e-004**	**0.0000**	**11.5425**

3.6 Paving - 2020

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	2.6400e-003	0.0510	0.0822	1.1000e-004		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	9.5135	9.5135	3.0800e-003	0.0000	9.5904
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6400e-003**	**0.0510**	**0.0822**	**1.1000e-004**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**	**0.0000**	**9.5135**	**9.5135**	**3.0800e-003**	**0.0000**	**9.5904**

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	9.6000e-004	0.0238	4.2800e-003	9.0000e-005	0.0459	2.3000e-004	0.0461	5.0400e-003	2.2000e-004	5.2600e-003	0.0000	8.0926	8.0926	2.4000e-004	0.0000	8.0985
Worker	1.6800e-003	1.2400e-003	0.0119	4.0000e-005	0.0345	2.0000e-005	0.0345	4.1100e-003	2.0000e-005	4.1300e-003	0.0000	3.4419	3.4419	8.0000e-005	0.0000	3.4440
Total	**2.6400e-003**	**0.0251**	**0.0162**	**1.3000e-004**	**0.0804**	**2.5000e-004**	**0.0806**	**9.1500e-003**	**2.4000e-004**	**9.3900e-003**	**0.0000**	**11.5345**	**11.5345**	**3.2000e-004**	**0.0000**	**11.5425**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0153	0.0000	0.0153	3.7600e-003	0.0000	3.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0153	0.0000	0.0153	3.7600e-003	0.0000	3.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	16.00	16.00	16.00	47,873	47,873
Total	16.00	16.00	16.00	47,873	47,873

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	14.70	6.60	6.60	20.00	0.00	80.00	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	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305
Unmitigated	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305

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	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305
Total	**1.3900e-003**	**1.4000e-004**	**0.0148**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0286**	**0.0286**	**8.0000e-005**	**0.0000**	**0.0305**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3900e-003	1.4000e-004	0.0148	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0286	0.0286	8.0000e-005	0.0000	0.0305
Total	**1.3900e-003**	**1.4000e-004**	**0.0148**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0286**	**0.0286**	**8.0000e-005**	**0.0000**	**0.0305**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	1	2.00	260	89	0.20	Diesel
Generator Sets	1	4.00	260	84	0.74	Diesel
Off-Highway Trucks	5	4.00	260	400	0.38	Diesel
Pressure Washers	1	4.00	260	13	0.30	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					
Forklifts	4.6800e-003	0.0422	0.0384	5.0000e-005		3.1400e-003	3.1400e-003		2.8900e-003	2.8900e-003	0.0000	4.3645	4.3645	1.4100e-003	0.0000	4.3998
Generator Sets	0.0259	0.2261	0.2409	4.3000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	36.7385	36.7385	2.0700e-003	0.0000	36.7902
Off-Highway Trucks	0.2144	2.0447	1.2321	4.2700e-003		0.0745	0.0745		0.0685	0.0685	0.0000	375.1070	375.1070	0.1213	0.0000	378.1400
Pressure Washers	2.8900e-003	0.0202	0.0159	4.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.3050	2.3050	2.4000e-004	0.0000	2.3109
Total	**0.2480**	**2.3331**	**1.5272**	**4.7900e-003**		**0.0913**	**0.0913**		**0.0851**	**0.0851**	**0.0000**	**418.5150**	**418.5150**	**0.1250**	**0.0000**	**421.6408**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

e.on Gates Solar Project: Stonecrop 20MW PV

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	300.00	User Defined Unit	300.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	370	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

e.on Gates Solar Project: Stonecrop 20MW PV - Fresno County, Annual

Project Characteristics - Updated CO2 intensity factor from PG&E

Land Use - The Stonecrop Solar facility is anticipated to require up to 300 acres.

Construction Phase - Construction schedule adjusted based on anticipated project-specific construction schedule.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Table Name	Column Name	Default Value	New Value
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tblFleetMix	MDV	0.13	0.00
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tblFleetMix	SBUS	1.1150e-003	0.00
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tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.06	0.09
tblVehicleEF	LDA	0.11	0.12
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.12	0.15
tblVehicleEF	LDA	2.5810e-003	3.2310e-003
tblVehicleEF	LDA	6.5100e-004	7.7700e-004
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.13	0.16
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.02	0.02

tblVehicleEF	LDT1	1.66	1.88
tblVehicleEF	LDT1	4.56	4.44
tblVehicleEF	LDT1	330.29	286.56
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.18	0.21
tblVehicleEF	LDT1	0.26	0.24
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.32	0.32
tblVehicleEF	LDT1	3.3240e-003	3.9060e-003
tblVehicleEF	LDT1	8.3600e-004	9.2500e-004
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.35	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.02	2.28

tblVehicleEF	LDT1	3.78	3.37
tblVehicleEF	LDT1	361.85	313.77
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.16	0.20
tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.27	0.26
tblVehicleEF	LDT1	3.6450e-003	4.2860e-003
tblVehicleEF	LDT1	8.2200e-004	9.0700e-004
tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.29	0.28
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	1.55	1.75
tblVehicleEF	LDT1	5.62	5.82

tblVehicleEF	LDT1	317.61	275.63
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.20	0.23
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.32	1.02
tblVehicleEF	LDT1	0.39	0.40
tblVehicleEF	LDT1	3.1960e-003	3.7540e-003
tblVehicleEF	LDT1	8.5500e-004	9.5000e-004
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.32	1.02
tblVehicleEF	LDT1	0.42	0.43
tblVehicleEF	LDT2	6.9890e-003	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.89	1.10
tblVehicleEF	LDT2	2.27	2.62
tblVehicleEF	LDT2	375.67	353.20

tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.11	0.14
tblVehicleEF	LDT2	0.20	0.22
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.15	0.18
tblVehicleEF	LDT2	3.7640e-003	4.5830e-003
tblVehicleEF	LDT2	9.0200e-004	1.0500e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.17	0.20
tblVehicleEF	LDT2	8.0510e-003	0.01
tblVehicleEF	LDT2	9.4610e-003	0.01
tblVehicleEF	LDT2	1.10	1.36
tblVehicleEF	LDT2	1.89	1.97
tblVehicleEF	LDT2	412.53	387.93
tblVehicleEF	LDT2	86.28	79.52

tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	4.1360e-003	5.0390e-003
tblVehicleEF	LDT2	8.9500e-004	1.0390e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.14	0.16
tblVehicleEF	LDT2	6.5610e-003	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.82	1.02
tblVehicleEF	LDT2	2.78	3.44
tblVehicleEF	LDT2	360.87	339.25
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.12	0.15

tblVehicleEF	LDT2	0.22	0.24
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.18	0.23
tblVehicleEF	LDT2	3.6150e-003	4.4010e-003
tblVehicleEF	LDT2	9.1100e-004	1.0650e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.20	0.24
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.48	1.64
tblVehicleEF	LHD1	2.81	4.04
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85

tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.24	1.31
tblVehicleEF	LHD1	1.02	1.14
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.28	0.34
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9250e-003	7.9200e-003
tblVehicleEF	LHD1	3.5600e-004	4.6200e-004
tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03

tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.31	0.36
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.52	1.68
tblVehicleEF	LHD1	2.61	2.92
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.12	1.23
tblVehicleEF	LHD1	0.96	1.08
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	9.1960e-003	7.0320e-003

tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.17	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.27	0.28
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9250e-003	7.9210e-003
tblVehicleEF	LHD1	3.5200e-004	4.4300e-004
tblVehicleEF	LHD1	9.1960e-003	7.0320e-003
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.21	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.29	0.30
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.45	1.60
tblVehicleEF	LHD1	3.07	5.43
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.29	1.35

tblVehicleEF	LHD1	1.09	1.22
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.34	0.42
tblVehicleEF	LHD1	0.30	0.41
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9240e-003	7.9200e-003
tblVehicleEF	LHD1	3.6000e-004	4.8600e-004
tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.20	0.18
tblVehicleEF	LHD1	0.34	0.42

tblVehicleEF	LHD1	0.33	0.44
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.04
tblVehicleEF	LHD2	1.49	2.10
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.84	1.78
tblVehicleEF	LHD2	0.65	0.69
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004

tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.15	0.18
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.20
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.85	1.05
tblVehicleEF	LHD2	1.39	1.53
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.75	1.69
tblVehicleEF	LHD2	0.62	0.65
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	2.8500e-004	2.7700e-004
tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.03
tblVehicleEF	LHD2	1.62	2.80
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.88	1.82
tblVehicleEF	LHD2	0.70	0.74
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.16	0.22
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005

tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	2.9000e-004	2.9900e-004
tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.17	0.23
tblVehicleEF	MCY	0.40	0.00
tblVehicleEF	MCY	0.17	0.00
tblVehicleEF	MCY	22.73	30.58
tblVehicleEF	MCY	9.98	10.57
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.19	1.27
tblVehicleEF	MCY	0.32	0.31
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47

tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.29	2.97
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.26	2.17
tblVehicleEF	MCY	2.0690e-003	2.2610e-003
tblVehicleEF	MCY	7.1600e-004	6.6700e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47
tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.77	3.23
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.46	2.33
tblVehicleEF	MCY	0.39	0.00
tblVehicleEF	MCY	0.14	0.00
tblVehicleEF	MCY	23.07	31.02
tblVehicleEF	MCY	9.18	8.97
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.03	1.10
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004

tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.22	2.90
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	1.91	1.83
tblVehicleEF	MCY	2.0720e-003	2.2660e-003
tblVehicleEF	MCY	6.9200e-004	6.3100e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.68	3.17
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	2.08	1.97
tblVehicleEF	MCY	0.42	0.00
tblVehicleEF	MCY	0.20	0.00
tblVehicleEF	MCY	24.56	33.17
tblVehicleEF	MCY	11.53	12.84
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.30	1.38
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003

tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	0.38	0.25
tblVehicleEF	MCY	1.05	0.45
tblVehicleEF	MCY	0.23	0.12
tblVehicleEF	MCY	2.43	3.10
tblVehicleEF	MCY	0.74	1.68
tblVehicleEF	MCY	2.73	2.62
tblVehicleEF	MCY	2.1020e-003	2.3060e-003
tblVehicleEF	MCY	7.5500e-004	7.1700e-004
tblVehicleEF	MCY	0.38	0.25
tblVehicleEF	MCY	1.05	0.45
tblVehicleEF	MCY	0.23	0.12
tblVehicleEF	MCY	2.93	3.38
tblVehicleEF	MCY	0.74	1.68
tblVehicleEF	MCY	2.97	2.82
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.62	1.87
tblVehicleEF	MDV	4.21	4.68
tblVehicleEF	MDV	515.99	470.46
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.21	0.27
tblVehicleEF	MDV	0.39	0.43
tblVehicleEF	MDV	1.6840e-003	1.8930e-003

tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.34	0.39
tblVehicleEF	MDV	5.1750e-003	5.8400e-003
tblVehicleEF	MDV	1.2390e-003	1.3540e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.37	0.42
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.98	2.29
tblVehicleEF	MDV	3.53	3.54
tblVehicleEF	MDV	565.23	516.17
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.37	0.39
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003

tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.28	0.32
tblVehicleEF	MDV	5.6720e-003	6.4150e-003
tblVehicleEF	MDV	1.2260e-003	1.3340e-003
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.30	0.34
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	1.52	1.75
tblVehicleEF	MDV	5.12	6.12
tblVehicleEF	MDV	496.21	452.10
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.44	0.47
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003

tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.40	0.48
tblVehicleEF	MDV	4.9760e-003	5.6100e-003
tblVehicleEF	MDV	1.2550e-003	1.3800e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.44	0.51
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.83	2.40
tblVehicleEF	MH	7.32	7.33
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
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tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004

tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.17	0.12
tblVehicleEF	MH	0.03	1.77
tblVehicleEF	MH	0.44	0.40
tblVehicleEF	MH	0.01	7.7070e-003
tblVehicleEF	MH	7.1900e-004	4.2800e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.23	0.15
tblVehicleEF	MH	0.03	1.77
tblVehicleEF	MH	0.48	0.43
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.98	2.48
tblVehicleEF	MH	6.63	5.21
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
tblVehicleEF	MH	1.95	1.59
tblVehicleEF	MH	0.93	0.72
tblVehicleEF	MH	0.13	0.05

tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
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tblVehicleEF	MH	1.02	0.77
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tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.41	0.33
tblVehicleEF	MH	0.01	7.7080e-003
tblVehicleEF	MH	7.0800e-004	3.9300e-004
tblVehicleEF	MH	4.16	3.02
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	1.02	0.77
tblVehicleEF	MH	0.24	0.15
tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.44	0.35
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	3.72	2.33
tblVehicleEF	MH	8.22	10.01
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69

tblVehicleEF	MH	2.17	1.77
tblVehicleEF	MH	1.06	0.81
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16
tblVehicleEF	MH	0.16	0.12
tblVehicleEF	MH	0.03	1.89
tblVehicleEF	MH	0.47	0.50
tblVehicleEF	MH	0.01	7.7060e-003
tblVehicleEF	MH	7.3500e-004	4.7300e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16
tblVehicleEF	MH	0.22	0.14
tblVehicleEF	MH	0.03	1.89
tblVehicleEF	MH	0.52	0.53
tblVehicleEF	MHD	0.02	8.5650e-003
tblVehicleEF	MHD	8.8450e-003	6.9360e-003
tblVehicleEF	MHD	0.07	0.00

tblVehicleEF	MHD	0.42	1.93
tblVehicleEF	MHD	0.58	0.89
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tblVehicleEF	MHD	1,213.16	1,020.46
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tblVehicleEF	MHD	2.52	2.84
tblVehicleEF	MHD	16.04	1.63
tblVehicleEF	MHD	0.01	0.03
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tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
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tblVehicleEF	MHD	0.05	0.18
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tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.26	1.08
tblVehicleEF	MHD	2.0340e-003	5.9880e-003

tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7200e-004	8.8400e-004
tblVehicleEF	MHD	1.4030e-003	3.7470e-003
tblVehicleEF	MHD	0.04	0.11
tblVehicleEF	MHD	0.06	0.21
tblVehicleEF	MHD	5.6100e-004	1.6450e-003
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.28	1.16
tblVehicleEF	MHD	0.02	8.0720e-003
tblVehicleEF	MHD	8.9450e-003	6.9360e-003
tblVehicleEF	MHD	0.07	0.00
tblVehicleEF	MHD	0.30	1.41
tblVehicleEF	MHD	0.58	0.91
tblVehicleEF	MHD	4.09	12.96
tblVehicleEF	MHD	225.31	611.79
tblVehicleEF	MHD	1,213.16	1,020.46
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tblVehicleEF	MHD	2.39	2.70
tblVehicleEF	MHD	16.01	1.54
tblVehicleEF	MHD	9.0550e-003	0.02
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	8.6630e-003	0.02

tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	3.3430e-003	9.0420e-003
tblVehicleEF	MHD	0.05	0.13
tblVehicleEF	MHD	0.05	0.17
tblVehicleEF	MHD	1.3130e-003	3.9120e-003
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.49
tblVehicleEF	MHD	0.25	0.88
tblVehicleEF	MHD	2.1550e-003	6.3440e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.6700e-004	8.0100e-004
tblVehicleEF	MHD	3.3430e-003	9.0420e-003
tblVehicleEF	MHD	0.05	0.13
tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	1.3130e-003	3.9120e-003
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.49
tblVehicleEF	MHD	0.27	0.94
tblVehicleEF	MHD	0.02	9.2460e-003
tblVehicleEF	MHD	8.7400e-003	6.9360e-003
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tblVehicleEF	MHD	0.57	2.66
tblVehicleEF	MHD	0.57	0.89
tblVehicleEF	MHD	4.84	24.05

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tblVehicleEF	MHD	1,213.16	1,020.46
tblVehicleEF	MHD	29.48	52.54
tblVehicleEF	MHD	1.42	5.48
tblVehicleEF	MHD	2.56	2.90
tblVehicleEF	MHD	16.09	1.74
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	3.6800e-004	9.4700e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.28	1.35
tblVehicleEF	MHD	1.8690e-003	5.4970e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7900e-004	9.9000e-004
tblVehicleEF	MHD	3.6800e-004	9.4700e-004

tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.06	0.23
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.30	1.44
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.02	2.6780e-003
tblVehicleEF	OBUS	0.04	0.00
tblVehicleEF	OBUS	0.32	2.55
tblVehicleEF	OBUS	1.04	1.58
tblVehicleEF	OBUS	7.73	12.23
tblVehicleEF	OBUS	174.61	545.88
tblVehicleEF	OBUS	1,363.34	1,029.67
tblVehicleEF	OBUS	65.25	33.59
tblVehicleEF	OBUS	1.12	5.14
tblVehicleEF	OBUS	2.79	2.83
tblVehicleEF	OBUS	4.04	1.61
tblVehicleEF	OBUS	5.2900e-004	0.01
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	5.0600e-004	9.3200e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.5580e-003
tblVehicleEF	OBUS	0.01	0.03

tblVehicleEF	OBUS	7.8300e-004	7.1400e-004
tblVehicleEF	OBUS	2.9240e-003	1.2430e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.44
tblVehicleEF	OBUS	9.1600e-004	4.1900e-004
tblVehicleEF	OBUS	0.11	0.16
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.47	0.72
tblVehicleEF	OBUS	1.6770e-003	5.6610e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.8800e-004	5.7900e-004
tblVehicleEF	OBUS	2.9240e-003	1.2430e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.06	0.50
tblVehicleEF	OBUS	9.1600e-004	4.1900e-004
tblVehicleEF	OBUS	0.14	0.19
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.52	0.77
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.02	2.6780e-003
tblVehicleEF	OBUS	0.04	0.00
tblVehicleEF	OBUS	0.29	1.85
tblVehicleEF	OBUS	1.07	1.62
tblVehicleEF	OBUS	7.00	8.88
tblVehicleEF	OBUS	184.04	578.31
tblVehicleEF	OBUS	1,363.34	1,029.67
tblVehicleEF	OBUS	65.25	33.59

tblVehicleEF	OBUS	1.15	5.30
tblVehicleEF	OBUS	2.64	2.66
tblVehicleEF	OBUS	3.96	1.52
tblVehicleEF	OBUS	4.4600e-004	8.5400e-003
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	4.2700e-004	7.8570e-003
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.5580e-003
tblVehicleEF	OBUS	0.01	0.03
tblVehicleEF	OBUS	7.8300e-004	7.1400e-004
tblVehicleEF	OBUS	6.7570e-003	2.8800e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.41
tblVehicleEF	OBUS	1.9960e-003	9.2500e-004
tblVehicleEF	OBUS	0.11	0.17
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.44	0.60
tblVehicleEF	OBUS	1.7670e-003	5.9970e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.7600e-004	5.2300e-004
tblVehicleEF	OBUS	6.7570e-003	2.8800e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.06	0.47
tblVehicleEF	OBUS	1.9960e-003	9.2500e-004

tblVehicleEF	OBUS	0.14	0.19
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.48	0.64
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.02	2.6780e-003
tblVehicleEF	OBUS	0.04	0.00
tblVehicleEF	OBUS	0.36	3.51
tblVehicleEF	OBUS	1.02	1.55
tblVehicleEF	OBUS	8.61	16.46
tblVehicleEF	OBUS	161.60	501.09
tblVehicleEF	OBUS	1,363.34	1,029.67
tblVehicleEF	OBUS	65.25	33.59
tblVehicleEF	OBUS	1.07	4.91
tblVehicleEF	OBUS	2.85	2.90
tblVehicleEF	OBUS	4.13	1.72
tblVehicleEF	OBUS	6.4400e-004	0.01
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	6.1600e-004	0.01
tblVehicleEF	OBUS	0.06	0.04
tblVehicleEF	OBUS	3.0000e-003	2.5580e-003
tblVehicleEF	OBUS	0.01	0.03
tblVehicleEF	OBUS	7.8300e-004	7.1400e-004
tblVehicleEF	OBUS	8.7100e-004	3.6600e-004
tblVehicleEF	OBUS	0.03	0.03

tblVehicleEF	OBUS	0.05	0.47
tblVehicleEF	OBUS	4.4800e-004	2.0100e-004
tblVehicleEF	OBUS	0.11	0.16
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.51	0.87
tblVehicleEF	OBUS	1.5530e-003	5.1960e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0300e-004	6.5000e-004
tblVehicleEF	OBUS	8.7100e-004	3.6600e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.07	0.54
tblVehicleEF	OBUS	4.4800e-004	2.0100e-004
tblVehicleEF	OBUS	0.14	0.19
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.56	0.93
tblVehicleEF	SBUS	0.87	4.3860e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.09	0.00
tblVehicleEF	SBUS	3.94	1.02
tblVehicleEF	SBUS	0.85	5.68
tblVehicleEF	SBUS	4.53	37.12
tblVehicleEF	SBUS	1,369.86	556.78
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14
tblVehicleEF	SBUS	14.90	7.66
tblVehicleEF	SBUS	5.99	7.20
tblVehicleEF	SBUS	17.31	2.30

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	3.2380e-003	0.06
tblVehicleEF	SBUS	0.02	0.26
tblVehicleEF	SBUS	0.47	0.09
tblVehicleEF	SBUS	9.2100e-004	0.02
tblVehicleEF	SBUS	0.13	0.51
tblVehicleEF	SBUS	0.01	1.90
tblVehicleEF	SBUS	0.23	2.51
tblVehicleEF	SBUS	0.01	5.7740e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	3.1300e-004	1.9870e-003
tblVehicleEF	SBUS	3.2380e-003	0.06
tblVehicleEF	SBUS	0.02	0.26
tblVehicleEF	SBUS	0.66	0.11
tblVehicleEF	SBUS	9.2100e-004	0.02
tblVehicleEF	SBUS	0.16	0.56
tblVehicleEF	SBUS	0.01	1.90
tblVehicleEF	SBUS	0.25	2.68

tblVehicleEF	SBUS	0.87	4.1340e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.07	0.00
tblVehicleEF	SBUS	3.75	0.74
tblVehicleEF	SBUS	0.86	5.82
tblVehicleEF	SBUS	3.04	29.22
tblVehicleEF	SBUS	1,444.37	589.86
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14
tblVehicleEF	SBUS	15.38	7.91
tblVehicleEF	SBUS	5.69	6.80
tblVehicleEF	SBUS	17.28	2.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	7.4420e-003	0.13
tblVehicleEF	SBUS	0.02	0.29
tblVehicleEF	SBUS	0.47	0.09
tblVehicleEF	SBUS	2.0250e-003	0.04
tblVehicleEF	SBUS	0.14	0.53

tblVehicleEF	SBUS	0.01	1.74
tblVehicleEF	SBUS	0.19	2.09
tblVehicleEF	SBUS	0.01	6.1170e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.8800e-004	1.8500e-003
tblVehicleEF	SBUS	7.4420e-003	0.13
tblVehicleEF	SBUS	0.02	0.29
tblVehicleEF	SBUS	0.66	0.10
tblVehicleEF	SBUS	2.0250e-003	0.04
tblVehicleEF	SBUS	0.16	0.58
tblVehicleEF	SBUS	0.01	1.74
tblVehicleEF	SBUS	0.20	2.23
tblVehicleEF	SBUS	0.87	4.7350e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.11	0.00
tblVehicleEF	SBUS	4.20	1.41
tblVehicleEF	SBUS	0.83	5.71
tblVehicleEF	SBUS	6.14	47.55
tblVehicleEF	SBUS	1,266.97	511.10
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14
tblVehicleEF	SBUS	14.24	7.32
tblVehicleEF	SBUS	6.11	7.37
tblVehicleEF	SBUS	17.34	2.48
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01

tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	9.3700e-004	0.01
tblVehicleEF	SBUS	0.02	0.30
tblVehicleEF	SBUS	0.48	0.10
tblVehicleEF	SBUS	4.5400e-004	7.0720e-003
tblVehicleEF	SBUS	0.13	0.50
tblVehicleEF	SBUS	0.02	2.28
tblVehicleEF	SBUS	0.28	3.03
tblVehicleEF	SBUS	0.01	5.3000e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	3.4000e-004	2.1670e-003
tblVehicleEF	SBUS	9.3700e-004	0.01
tblVehicleEF	SBUS	0.02	0.30
tblVehicleEF	SBUS	0.67	0.12
tblVehicleEF	SBUS	4.5400e-004	7.0720e-003
tblVehicleEF	SBUS	0.16	0.55
tblVehicleEF	SBUS	0.02	2.28
tblVehicleEF	SBUS	0.30	3.24
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	8.78	3.99

tblVehicleEF	UBUS	10.27	13.14
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	8.97	8.73
tblVehicleEF	UBUS	14.01	1.96
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	6.5800e-003	6.3350e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
tblVehicleEF	UBUS	0.71	0.55
tblVehicleEF	UBUS	0.01	0.46
tblVehicleEF	UBUS	0.89	1.08
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4410e-003	6.7000e-004
tblVehicleEF	UBUS	6.5800e-003	6.3350e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
tblVehicleEF	UBUS	2.85	0.62
tblVehicleEF	UBUS	0.01	0.46
tblVehicleEF	UBUS	0.97	1.16

tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	8.83	4.07
tblVehicleEF	UBUS	8.29	10.34
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	8.51	8.24
tblVehicleEF	UBUS	13.91	1.84
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003
tblVehicleEF	UBUS	0.72	0.56
tblVehicleEF	UBUS	0.01	0.44
tblVehicleEF	UBUS	0.78	0.95
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4060e-003	6.2200e-004
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003

tblVehicleEF	UBUS	2.86	0.63
tblVehicleEF	UBUS	0.01	0.44
tblVehicleEF	UBUS	0.86	1.01
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	8.73	3.91
tblVehicleEF	UBUS	12.62	16.53
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	9.15	8.93
tblVehicleEF	UBUS	14.13	2.10
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08
tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	0.71	0.54
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.00	1.25
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4810e-003	7.2800e-004

tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08
tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	2.84	0.60
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.10	1.33
tblVehicleTrips	CNW_TTP	0.00	67.00
tblVehicleTrips	CW_TTP	0.00	33.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

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					
2020	0.9231	9.8652	6.7057	0.0263	10.5091	0.3823	10.8914	1.1756	0.3580	1.5336	0.0000	2,392.9569	2,392.9569	0.2755	0.0000	2,399.8446
Maximum	**0.9231**	**9.8652**	**6.7057**	**0.0263**	**10.5091**	**0.3823**	**10.8914**	**1.1756**	**0.3580**	**1.5336**	**0.0000**	**2,392.9569**	**2,392.9569**	**0.2755**	**0.0000**	**2,399.8446**

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					
2020	0.5067	8.2120	7.9031	0.0263	6.6562	0.2378	6.8940	0.7890	0.2361	1.0251	0.0000	2,392.9558	2,392.9558	0.2755	0.0000	2,399.8435
Maximum	**0.5067**	**8.2120**	**7.9031**	**0.0263**	**6.6562**	**0.2378**	**6.8940**	**0.7890**	**0.2361**	**1.0251**	**0.0000**	**2,392.9558**	**2,392.9558**	**0.2755**	**0.0000**	**2,399.8435**

	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	**45.11**	**16.76**	**-17.86**	**0.00**	**36.66**	**37.80**	**36.70**	**32.88**	**34.04**	**33.15**	**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)
4	5-8-2020	8-7-2020	0.2570	0.1639
5	8-8-2020	9-30-2020	3.6165	2.8385
		Highest	3.6165	2.8385

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	3.2400e-003	0.0000	3.2400e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.1622	1.5153	1.0344	3.0800e-003		0.0615	0.0615		0.0577	0.0577	0.0000	268.4722	268.4722	0.0765	0.0000	270.3848
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	**0.1624**	**1.5153**	**1.0371**	**3.0800e-003**	**3.2400e-003**	**0.0616**	**0.0648**	**8.0000e-004**	**0.0577**	**0.0585**	**0.0000**	**268.4776**	**268.4776**	**0.0765**	**0.0000**	**270.3906**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	3.2400e-003	0.0000	3.2400e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.1622	1.5153	1.0344	3.0800e-003		0.0615	0.0615		0.0577	0.0577	0.0000	268.4722	268.4722	0.0765	0.0000	270.3848
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	**0.1624**	**1.5153**	**1.0371**	**3.0800e-003**	**3.2400e-003**	**0.0616**	**0.0648**	**8.0000e-004**	**0.0577**	**0.0585**	**0.0000**	**268.4776**	**268.4776**	**0.0765**	**0.0000**	**270.3906**

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

3.0 Construction Detail

Construction Phase

e.on Gates Solar Project: Stonecrop 20MW PV - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2020	8/5/2020	5	3	
2	Grading/Excavation	Grading	8/6/2020	8/15/2020	5	8	
3	Drainage/Utilities/Sub-Grade	Trenching	8/16/2020	8/27/2020	5	8	
4	Construction	Building Construction	8/28/2020	12/20/2020	5	83	
5	Paving	Paving	12/21/2020	12/30/2020	5	6	

Acres of Grading (Site Preparation Phase): 300

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	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Dumpers/Tenders	5	8.00	16	0.38
Site Preparation	Forklifts	2	8.00	89	0.20
Site Preparation	Generator Sets	4	8.00	84	0.74
Site Preparation	Graders	2	8.00	174	0.41
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Scrapers	2	8.00	361	0.48
Site Preparation	Skid Steer Loaders	2	8.00	64	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Crawler Tractors	2	8.00	208	0.43

Grading/Excavation	Dumpers/Tenders	5	8.00	16	0.38
Grading/Excavation	Excavators	0	8.00	162	0.38
Grading/Excavation	Forklifts	2	8.00	89	0.20
Grading/Excavation	Generator Sets	4	8.00	84	0.74
Grading/Excavation	Graders	2	8.00	174	0.41
Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Grading/Excavation	Rollers	2	8.00	80	0.38
Grading/Excavation	Rubber Tired Dozers	0	8.00	255	0.40
Grading/Excavation	Scrapers	2	8.00	361	0.48
Grading/Excavation	Skid Steer Loaders	2	8.00	64	0.37
Grading/Excavation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Drainage/Utilities/Sub-Grade	Crawler Tractors	2	8.00	208	0.43
Drainage/Utilities/Sub-Grade	Dumpers/Tenders	5	8.00	16	0.38
Drainage/Utilities/Sub-Grade	Forklifts	2	8.00	89	0.20
Drainage/Utilities/Sub-Grade	Generator Sets	4	8.00	84	0.74
Drainage/Utilities/Sub-Grade	Graders	2	8.00	174	0.41
Drainage/Utilities/Sub-Grade	Plate Compactors	2	8.00	8	0.43
Drainage/Utilities/Sub-Grade	Scrapers	2	8.00	361	0.48
Drainage/Utilities/Sub-Grade	Skid Steer Loaders	2	8.00	64	0.37
Drainage/Utilities/Sub-Grade	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Construction	Bore/Drill Rigs	10	8.00	205	0.50
Construction	Cement and Mortar Mixers	10	8.00	9	0.56
Construction	Concrete/Industrial Saws	3	4.00	81	0.73
Construction	Cranes	1	8.00	226	0.29
Construction	Dumpers/Tenders	5	8.00	16	0.38
Construction	Excavators	2	8.00	162	0.38
Construction	Forklifts	5	8.00	89	0.20

Construction	Generator Sets	4	8.00	84	0.74
Construction	Pavers	1	8.00	125	0.42
Construction	Paving Equipment	1	8.00	130	0.36
Construction	Plate Compactors	1	8.00	8	0.43
Construction	Rollers	1	8.00	80	0.38
Construction	Skid Steer Loaders	2	8.00	64	0.37
Construction	Tractors/Loaders/Backhoes	7	8.00	97	0.37
Construction	Trenchers	10	8.00	80	0.50
Construction	Welders	0	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38

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	25	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	27	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Sub-Grade	25	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Construction	63	200.00	100.00	0.00	50.00	101.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	5.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					0.1591	0.0000	0.1591	0.0172	0.0000	0.0172	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1223	0.0891	1.6000e-004		5.9100e-003	5.9100e-003		5.5400e-003	5.5400e-003	0.0000	14.0707	14.0707	3.5300e-003	0.0000	14.1591
Total	**0.0118**	**0.1223**	**0.0891**	**1.6000e-004**	**0.1591**	**5.9100e-003**	**0.1650**	**0.0172**	**5.5400e-003**	**0.0227**	**0.0000**	**14.0707**	**14.0707**	**3.5300e-003**	**0.0000**	**14.1591**

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	6.5000e-004	0.0163	2.9200e-003	6.0000e-005	0.0501	1.6000e-004	0.0502	5.3100e-003	1.5000e-004	5.4600e-003	0.0000	5.5177	5.5177	1.6000e-004	0.0000	5.5217
Worker	1.1500e-003	8.5000e-004	8.1200e-003	3.0000e-005	0.0366	2.0000e-005	0.0366	4.1100e-003	1.0000e-005	4.1300e-003	0.0000	2.3468	2.3468	6.0000e-005	0.0000	2.3482
Total	**1.8000e-003**	**0.0171**	**0.0110**	**9.0000e-005**	**0.0867**	**1.8000e-004**	**0.0869**	**9.4200e-003**	**1.6000e-004**	**9.5900e-003**	**0.0000**	**7.8644**	**7.8644**	**2.2000e-004**	**0.0000**	**7.8699**

3.2 Site Preparation - 2020

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					0.0716	0.0000	0.0716	7.7300e-003	0.0000	7.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0755	0.0966	1.6000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	14.0707	14.0707	3.5300e-003	0.0000	14.1591
Total	**3.6300e-003**	**0.0755**	**0.0966**	**1.6000e-004**	**0.0716**	**3.9600e-003**	**0.0755**	**7.7300e-003**	**3.9600e-003**	**0.0117**	**0.0000**	**14.0707**	**14.0707**	**3.5300e-003**	**0.0000**	**14.1591**

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	6.5000e-004	0.0163	2.9200e-003	6.0000e-005	0.0313	1.6000e-004	0.0315	3.4400e-003	1.5000e-004	3.5900e-003	0.0000	5.5177	5.5177	1.6000e-004	0.0000	5.5217
Worker	1.1500e-003	8.5000e-004	8.1200e-003	3.0000e-005	0.0235	2.0000e-005	0.0235	2.8000e-003	1.0000e-005	2.8100e-003	0.0000	2.3468	2.3468	6.0000e-005	0.0000	2.3482
Total	**1.8000e-003**	**0.0171**	**0.0110**	**9.0000e-005**	**0.0548**	**1.8000e-004**	**0.0550**	**6.2400e-003**	**1.6000e-004**	**6.4000e-003**	**0.0000**	**7.8644**	**7.8644**	**2.2000e-004**	**0.0000**	**7.8699**

3.3 Grading/Excavation - 2020

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					0.1392	0.0000	0.1392	0.0150	0.0000	0.0150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0289	0.2998	0.2212	4.0000e-004		0.0147	0.0147		0.0138	0.0138	0.0000	34.4451	34.4451	8.7700e-003	0.0000	34.6644
Total	**0.0289**	**0.2998**	**0.2212**	**4.0000e-004**	**0.1392**	**0.0147**	**0.1539**	**0.0150**	**0.0138**	**0.0288**	**0.0000**	**34.4451**	**34.4451**	**8.7700e-003**	**0.0000**	**34.6644**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0379	6.8100e-003	1.4000e-004	0.1168	3.7000e-004	0.1172	0.0124	3.5000e-004	0.0128	0.0000	12.8746	12.8746	3.8000e-004	0.0000	12.8839
Worker	2.6700e-003	1.9800e-003	0.0189	6.0000e-005	0.0855	4.0000e-005	0.0855	9.6000e-003	3.0000e-005	9.6300e-003	0.0000	5.4758	5.4758	1.3000e-004	0.0000	5.4791
Total	**4.1900e-003**	**0.0399**	**0.0258**	**2.0000e-004**	**0.2023**	**4.1000e-004**	**0.2027**	**0.0220**	**3.8000e-004**	**0.0224**	**0.0000**	**18.3504**	**18.3504**	**5.1000e-004**	**0.0000**	**18.3631**

3.3 Grading/Excavation - 2020

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					0.0626	0.0000	0.0626	6.7600e-003	0.0000	6.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8800e-003	0.1841	0.2393	4.0000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003	0.0000	34.4451	34.4451	8.7700e-003	0.0000	34.6643
Total	**8.8800e-003**	**0.1841**	**0.2393**	**4.0000e-004**	**0.0626**	**9.2700e-003**	**0.0719**	**6.7600e-003**	**9.2700e-003**	**0.0160**	**0.0000**	**34.4451**	**34.4451**	**8.7700e-003**	**0.0000**	**34.6643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0379	6.8100e-003	1.4000e-004	0.0730	3.7000e-004	0.0734	8.0200e-003	3.5000e-004	8.3700e-003	0.0000	12.8746	12.8746	3.8000e-004	0.0000	12.8839
Worker	2.6700e-003	1.9800e-003	0.0189	6.0000e-005	0.0548	4.0000e-005	0.0549	6.5300e-003	3.0000e-005	6.5700e-003	0.0000	5.4758	5.4758	1.3000e-004	0.0000	5.4791
Total	**4.1900e-003**	**0.0399**	**0.0258**	**2.0000e-004**	**0.1278**	**4.1000e-004**	**0.1282**	**0.0146**	**3.8000e-004**	**0.0149**	**0.0000**	**18.3504**	**18.3504**	**5.1000e-004**	**0.0000**	**18.3631**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0353	0.3668	0.2673	4.9000e-004		0.0177	0.0177		0.0166	0.0166	0.0000	42.2122	42.2122	0.0106	0.0000	42.4773
Total	**0.0353**	**0.3668**	**0.2673**	**4.9000e-004**		**0.0177**	**0.0177**		**0.0166**	**0.0166**	**0.0000**	**42.2122**	**42.2122**	**0.0106**	**0.0000**	**42.4773**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9600e-003	0.0487	8.7500e-003	1.7000e-004	0.1502	4.7000e-004	0.1506	0.0159	4.5000e-004	0.0164	0.0000	16.5530	16.5530	4.8000e-004	0.0000	16.5651
Worker	3.4400e-003	2.5400e-003	0.0244	8.0000e-005	0.1099	5.0000e-005	0.1099	0.0123	4.0000e-005	0.0124	0.0000	7.0403	7.0403	1.7000e-004	0.0000	7.0446
Total	**5.4000e-003**	**0.0513**	**0.0331**	**2.5000e-004**	**0.2601**	**5.2000e-004**	**0.2606**	**0.0283**	**4.9000e-004**	**0.0288**	**0.0000**	**23.5933**	**23.5933**	**6.5000e-004**	**0.0000**	**23.6097**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0109	0.2264	0.2899	4.9000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	42.2122	42.2122	0.0106	0.0000	42.4773
Total	**0.0109**	**0.2264**	**0.2899**	**4.9000e-004**		**0.0119**	**0.0119**		**0.0119**	**0.0119**	**0.0000**	**42.2122**	**42.2122**	**0.0106**	**0.0000**	**42.4773**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9600e-003	0.0487	8.7500e-003	1.7000e-004	0.0939	4.7000e-004	0.0944	0.0103	4.5000e-004	0.0108	0.0000	16.5530	16.5530	4.8000e-004	0.0000	16.5651
Worker	3.4400e-003	2.5400e-003	0.0244	8.0000e-005	0.0705	5.0000e-005	0.0705	8.4000e-003	4.0000e-005	8.4400e-003	0.0000	7.0403	7.0403	1.7000e-004	0.0000	7.0446
Total	**5.4000e-003**	**0.0513**	**0.0331**	**2.5000e-004**	**0.1644**	**5.2000e-004**	**0.1649**	**0.0187**	**4.9000e-004**	**0.0192**	**0.0000**	**23.5933**	**23.5933**	**6.5000e-004**	**0.0000**	**23.6097**

3.5 Construction - 2020

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	0.5691	5.5551	4.5273	9.3000e-003		0.3043	0.3043		0.2842	0.2842	0.0000	804.9629	804.9629	0.2206	0.0000	810.4783
Total	**0.5691**	**5.5551**	**4.5273**	**9.3000e-003**		**0.3043**	**0.3043**		**0.2842**	**0.2842**	**0.0000**	**804.9629**	**804.9629**	**0.2206**	**0.0000**	**810.4783**

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	0.1374	3.2657	0.5987	0.0124	5.6730	0.0343	5.7073	0.6359	0.0328	0.6687	0.0000	1,182.8929	1,182.8929	0.0221	0.0000	1,183.4449
Worker	0.1238	0.0915	0.8766	2.8000e-003	3.9555	1.7300e-003	3.9573	0.4441	1.6000e-003	0.4457	0.0000	253.4517	253.4517	6.1700e-003	0.0000	253.6059
Total	**0.2611**	**3.3571**	**1.4752**	**0.0152**	**9.6285**	**0.0360**	**9.6646**	**1.0800**	**0.0344**	**1.1144**	**0.0000**	**1,436.3446**	**1,436.3446**	**0.0283**	**0.0000**	**1,437.0508**

3.5 Construction - 2020

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	0.2079	4.2145	5.6666	9.3000e-003		0.1739	0.1739		0.1739	0.1739	0.0000	804.9619	804.9619	0.2206	0.0000	810.4773
Total	**0.2079**	**4.2145**	**5.6666**	**9.3000e-003**		**0.1739**	**0.1739**		**0.1739**	**0.1739**	**0.0000**	**804.9619**	**804.9619**	**0.2206**	**0.0000**	**810.4773**

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	0.1374	3.2657	0.5987	0.0124	3.6164	0.0343	3.6508	0.4302	0.0328	0.4630	0.0000	1,182.8929	1,182.8929	0.0221	0.0000	1,183.4449
Worker	0.1238	0.0915	0.8766	2.8000e-003	2.5372	1.7300e-003	2.5389	0.3023	1.6000e-003	0.3039	0.0000	253.4517	253.4517	6.1700e-003	0.0000	253.6059
Total	**0.2611**	**3.3571**	**1.4752**	**0.0152**	**6.1536**	**0.0360**	**6.1897**	**0.7325**	**0.0344**	**0.7669**	**0.0000**	**1,436.3446**	**1,436.3446**	**0.0283**	**0.0000**	**1,437.0508**

3.6 Paving - 2020

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	4.4900e-003	0.0468	0.0498	8.0000e-005		2.4300e-003	2.4300e-003		2.2300e-003	2.2300e-003	0.0000	6.9189	6.9189	2.2400e-003	0.0000	6.9748
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4900e-003**	**0.0468**	**0.0498**	**8.0000e-005**		**2.4300e-003**	**2.4300e-003**		**2.2300e-003**	**2.2300e-003**	**0.0000**	**6.9189**	**6.9189**	**2.2400e-003**	**0.0000**	**6.9748**

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	3.5000e-004	8.6600e-003	1.5600e-003	3.0000e-005	0.0138	8.0000e-005	0.0139	1.5500e-003	8.0000e-005	1.6300e-003	0.0000	2.9428	2.9428	9.0000e-005	0.0000	2.9449
Worker	6.1000e-004	4.5000e-004	4.3300e-003	1.0000e-005	0.0195	1.0000e-005	0.0195	2.1900e-003	1.0000e-005	2.2000e-003	0.0000	1.2516	1.2516	3.0000e-005	0.0000	1.2524
Total	**9.6000e-004**	**9.1100e-003**	**5.8900e-003**	**4.0000e-005**	**0.0333**	**9.0000e-005**	**0.0334**	**3.7400e-003**	**9.0000e-005**	**3.8300e-003**	**0.0000**	**4.1944**	**4.1944**	**1.2000e-004**	**0.0000**	**4.1973**

3.6 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9200e-003	0.0371	0.0598	8.0000e-005		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	6.9189	6.9189	2.2400e-003	0.0000	6.9748
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9200e-003**	**0.0371**	**0.0598**	**8.0000e-005**		**1.5900e-003**	**1.5900e-003**		**1.5900e-003**	**1.5900e-003**	**0.0000**	**6.9189**	**6.9189**	**2.2400e-003**	**0.0000**	**6.9748**

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	3.5000e-004	8.6600e-003	1.5600e-003	3.0000e-005	8.8000e-003	8.0000e-005	8.8800e-003	1.0500e-003	8.0000e-005	1.1300e-003	0.0000	2.9428	2.9428	9.0000e-005	0.0000	2.9449
Worker	6.1000e-004	4.5000e-004	4.3300e-003	1.0000e-005	0.0125	1.0000e-005	0.0125	1.4900e-003	1.0000e-005	1.5000e-003	0.0000	1.2516	1.2516	3.0000e-005	0.0000	1.2524
Total	**9.6000e-004**	**9.1100e-003**	**5.8900e-003**	**4.0000e-005**	**0.0213**	**9.0000e-005**	**0.0214**	**2.5400e-003**	**9.0000e-005**	**2.6300e-003**	**0.0000**	**4.1944**	**4.1944**	**1.2000e-004**	**0.0000**	**4.1973**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	3.2400e-003	0.0000	3.2400e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	3.2400e-003	0.0000	3.2400e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	3.00	3.00	3.00	10,126	10,126
Total	3.00	3.00	3.00	10,126	10,126

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	14.70	6.60	6.60	33.00	0.00	67.00	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	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Unmitigated	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**2.6000e-004**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3600e-003	5.3600e-003	1.0000e-005	0.0000	5.7200e-003
Total	**2.6000e-004**	**3.0000e-005**	**2.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3600e-003**	**5.3600e-003**	**1.0000e-005**	**0.0000**	**5.7200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	1	2.00	260	89	0.20	Diesel
Generator Sets	1	4.00	260	84	0.74	Diesel
Off-Highway Trucks	3	4.00	260	400	0.38	Diesel
Pressure Washers	1	4.00	260	13	0.30	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					
Forklifts	4.6800e-003	0.0422	0.0384	5.0000e-005		3.1400e-003	3.1400e-003		2.8900e-003	2.8900e-003	0.0000	4.3645	4.3645	1.4100e-003	0.0000	4.3998
Generator Sets	0.0259	0.2261	0.2409	4.3000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	36.7385	36.7385	2.0700e-003	0.0000	36.7902
Off-Highway Trucks	0.1287	1.2268	0.7393	2.5600e-003		0.0447	0.0447		0.0411	0.0411	0.0000	225.0642	225.0642	0.0728	0.0000	226.8840
Pressure Washers	2.8900e-003	0.0202	0.0159	4.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.3050	2.3050	2.4000e-004	0.0000	2.3109
Total	**0.1622**	**1.5153**	**1.0343**	**3.0800e-003**		**0.0616**	**0.0616**		**0.0577**	**0.0577**	**0.0000**	**268.4722**	**268.4722**	**0.0765**	**0.0000**	**270.3848**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

e.on Gates Solar Project: Blackbriar Battery Storage

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.00	User Defined Unit	5.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	307	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

e.on Gates Solar Project: Blackbriar Battery Storage - Fresno County, Annual

Project Characteristics - Updated CO2 intensity factor from PG&E

Land Use - The Blackbriar Battery Storage facility is anticipated to require up to 5 acres.

Construction Phase - Construction schedule adjusted based on anticipated project-specific construction schedule.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Off-road Equipment - Project-specific construction equipment roster provided.

Trips and VMT - Worker trips per day based on maximum number of workers expected by phase. Vendor trips assumed to be half of the maximum number of workers expected by phase. No hauling would occur.

On-road Fugitive Dust - 0.7% of workers commute distance (.35 mile) assumed unpaved on-site and 1% to 2% vendors driving distance (1 mile) assumed unpaved on-site.

Grading - Total acres disturbed equal to total project acres.

Vehicle Trips - Trip rates based on estimated operational personnel. C-W and C-NW trip % based on number of on-site personnel (or vendors) divided by total number of workers and vendors.

Construction Off-road Equipment Mitigation - Construction equipment mitigated with Tier 4 interim engines (for engines less than or equal to 81hp), and Tier 3 for all others.

Energy Mitigation -

Operational Off-Road Equipment - Operational off-road equipment includes on-site personnel truck, water truck, (assumed to be an off-highway truck)

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	20.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	19.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	230.00	78.00
tblConstructionPhase	NumDays	18.00	6.00
tblConstructionPhase	NumDays	5.00	3.00
tblFleetMix	HHD	0.12	0.00
tblFleetMix	LDA	0.48	0.00
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.9970e-003	0.00
tblFleetMix	MCY	5.2610e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	6.6700e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.3690e-003	0.00
tblFleetMix	SBUS	1.1150e-003	0.00
tblFleetMix	UBUS	1.6750e-003	0.00
tblGrading	AcresOfGrading	32.00	5.00
tblGrading	AcresOfGrading	12.00	5.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	HorsePower	231.00	226.00

tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	221.00	205.00
tblOffRoadEquipment	HorsePower	212.00	208.00
tblOffRoadEquipment	HorsePower	212.00	208.00
tblOffRoadEquipment	HorsePower	212.00	208.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	99.30
tblOnRoadDust	WorkerPercentPave	100.00	99.30
tblOnRoadDust	WorkerPercentPave	100.00	99.30
tblOnRoadDust	WorkerPercentPave	100.00	99.30
tblOnRoadDust	WorkerPercentPave	100.00	99.30
tblOperationalOffRoadEquipment	OperHorsePower	402.00	400.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	307
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	50.00
tblTripsAndVMT	VendorTripLength	6.60	50.00
tblTripsAndVMT	VendorTripLength	6.60	50.00
tblTripsAndVMT	VendorTripLength	6.60	101.50
tblTripsAndVMT	VendorTripLength	6.60	50.00
tblTripsAndVMT	VendorTripNumber	0.00	25.00
tblTripsAndVMT	VendorTripNumber	0.00	25.00
tblTripsAndVMT	VendorTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	WorkerTripLength	16.80	50.00
tblTripsAndVMT	WorkerTripLength	16.80	50.00
tblTripsAndVMT	WorkerTripLength	16.80	50.00
tblTripsAndVMT	WorkerTripLength	16.80	50.00
tblTripsAndVMT	WorkerTripLength	16.80	50.00
tblTripsAndVMT	WorkerTripNumber	63.00	50.00
tblTripsAndVMT	WorkerTripNumber	68.00	50.00
tblTripsAndVMT	WorkerTripNumber	63.00	100.00
tblTripsAndVMT	WorkerTripNumber	0.00	200.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleEF	HHD	2.96	0.03
tblVehicleEF	HHD	0.01	0.01

tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.27	3.18
tblVehicleEF	HHD	0.66	1.20
tblVehicleEF	HHD	0.71	67.96
tblVehicleEF	HHD	5,898.79	539.74
tblVehicleEF	HHD	1,601.10	1,582.77
tblVehicleEF	HHD	2.13	55.28
tblVehicleEF	HHD	25.61	3.97
tblVehicleEF	HHD	4.06	3.90
tblVehicleEF	HHD	20.63	3.82
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.08
tblVehicleEF	HHD	2.0000e-005	2.4060e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9030e-003	8.9200e-003
tblVehicleEF	HHD	0.02	0.07
tblVehicleEF	HHD	1.8000e-005	1.9570e-003
tblVehicleEF	HHD	3.3000e-005	2.8560e-003
tblVehicleEF	HHD	1.2650e-003	0.12
tblVehicleEF	HHD	0.87	0.57
tblVehicleEF	HHD	1.7000e-005	1.3910e-003
tblVehicleEF	HHD	0.14	0.23
tblVehicleEF	HHD	9.6000e-005	0.54
tblVehicleEF	HHD	0.02	2.15

tblVehicleEF	HHD	0.06	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.3000e-005	1.7340e-003
tblVehicleEF	HHD	3.3000e-005	2.8560e-003
tblVehicleEF	HHD	1.2650e-003	0.12
tblVehicleEF	HHD	0.99	0.65
tblVehicleEF	HHD	1.7000e-005	1.3910e-003
tblVehicleEF	HHD	0.16	0.26
tblVehicleEF	HHD	9.6000e-005	0.54
tblVehicleEF	HHD	0.02	2.30
tblVehicleEF	HHD	2.79	0.02
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	2.39	2.31
tblVehicleEF	HHD	0.66	1.20
tblVehicleEF	HHD	0.66	51.36
tblVehicleEF	HHD	6,245.05	571.81
tblVehicleEF	HHD	1,601.10	1,582.77
tblVehicleEF	HHD	2.13	55.28
tblVehicleEF	HHD	26.42	4.10
tblVehicleEF	HHD	3.86	3.72
tblVehicleEF	HHD	20.63	3.61
tblVehicleEF	HHD	0.02	9.7120e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.08
tblVehicleEF	HHD	2.0000e-005	2.4060e-003

tblVehicleEF	HHD	0.02	8.9350e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9030e-003	8.9200e-003
tblVehicleEF	HHD	0.02	0.07
tblVehicleEF	HHD	1.8000e-005	1.9570e-003
tblVehicleEF	HHD	7.6000e-005	6.8950e-003
tblVehicleEF	HHD	1.4520e-003	0.14
tblVehicleEF	HHD	0.82	0.54
tblVehicleEF	HHD	3.8000e-005	3.1870e-003
tblVehicleEF	HHD	0.14	0.23
tblVehicleEF	HHD	9.7000e-005	0.55
tblVehicleEF	HHD	0.02	1.72
tblVehicleEF	HHD	0.06	5.9300e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.2000e-005	1.4600e-003
tblVehicleEF	HHD	7.6000e-005	6.8950e-003
tblVehicleEF	HHD	1.4520e-003	0.14
tblVehicleEF	HHD	0.94	0.61
tblVehicleEF	HHD	3.8000e-005	3.1870e-003
tblVehicleEF	HHD	0.16	0.26
tblVehicleEF	HHD	9.7000e-005	0.55
tblVehicleEF	HHD	0.02	1.84
tblVehicleEF	HHD	3.19	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	4.50	4.38
tblVehicleEF	HHD	0.65	1.19

tblVehicleEF	HHD	0.77	89.53
tblVehicleEF	HHD	5,420.63	495.46
tblVehicleEF	HHD	1,601.10	1,582.77
tblVehicleEF	HHD	2.13	55.28
tblVehicleEF	HHD	24.49	3.80
tblVehicleEF	HHD	4.13	3.97
tblVehicleEF	HHD	20.64	4.08
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.08
tblVehicleEF	HHD	2.0000e-005	2.4060e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9030e-003	8.9200e-003
tblVehicleEF	HHD	0.02	0.07
tblVehicleEF	HHD	1.8000e-005	1.9570e-003
tblVehicleEF	HHD	1.0000e-005	7.6400e-004
tblVehicleEF	HHD	1.3050e-003	0.13
tblVehicleEF	HHD	0.94	0.61
tblVehicleEF	HHD	7.0000e-006	5.0700e-004
tblVehicleEF	HHD	0.14	0.23
tblVehicleEF	HHD	1.0500e-004	0.58
tblVehicleEF	HHD	0.02	2.70
tblVehicleEF	HHD	0.05	5.1380e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.4000e-005	2.0900e-003

tblVehicleEF	HHD	1.0000e-005	7.6400e-004
tblVehicleEF	HHD	1.3050e-003	0.13
tblVehicleEF	HHD	1.07	0.70
tblVehicleEF	HHD	7.0000e-006	5.0700e-004
tblVehicleEF	HHD	0.16	0.26
tblVehicleEF	HHD	1.0500e-004	0.58
tblVehicleEF	HHD	0.03	2.89
tblVehicleEF	LDA	4.3510e-003	9.2260e-003
tblVehicleEF	LDA	7.5130e-003	6.7750e-003
tblVehicleEF	LDA	0.59	0.78
tblVehicleEF	LDA	1.51	1.76
tblVehicleEF	LDA	268.73	238.12
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.10	0.12
tblVehicleEF	LDA	2.6910e-003	3.3700e-003
tblVehicleEF	LDA	6.4500e-004	7.6700e-004

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.11	0.13
tblVehicleEF	LDA	5.0340e-003	9.2260e-003
tblVehicleEF	LDA	6.2060e-003	6.7750e-003
tblVehicleEF	LDA	0.74	0.98
tblVehicleEF	LDA	1.26	1.32
tblVehicleEF	LDA	295.91	262.23
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.09	0.10
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.10	0.08
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.23
tblVehicleEF	LDA	0.08	0.10
tblVehicleEF	LDA	2.9650e-003	3.7150e-003
tblVehicleEF	LDA	6.4000e-004	7.6000e-004
tblVehicleEF	LDA	0.14	0.12

tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.10	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.04	0.23
tblVehicleEF	LDA	0.09	0.10
tblVehicleEF	LDA	4.0730e-003	9.2260e-003
tblVehicleEF	LDA	8.9090e-003	6.7750e-003
tblVehicleEF	LDA	0.54	0.72
tblVehicleEF	LDA	1.85	2.32
tblVehicleEF	LDA	257.81	228.43
tblVehicleEF	LDA	61.89	54.16
tblVehicleEF	LDA	0.06	0.09
tblVehicleEF	LDA	0.11	0.12
tblVehicleEF	LDA	1.5800e-003	1.5480e-003
tblVehicleEF	LDA	2.3410e-003	3.3950e-003
tblVehicleEF	LDA	1.4560e-003	1.4350e-003
tblVehicleEF	LDA	2.1520e-003	3.1480e-003
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.12	0.15
tblVehicleEF	LDA	2.5810e-003	3.2310e-003
tblVehicleEF	LDA	6.5100e-004	7.7700e-004
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.13	0.10

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.05	0.27
tblVehicleEF	LDA	0.13	0.16
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	1.66	1.88
tblVehicleEF	LDT1	4.56	4.44
tblVehicleEF	LDT1	330.29	286.56
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.18	0.21
tblVehicleEF	LDT1	0.26	0.24
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.32	0.32
tblVehicleEF	LDT1	3.3240e-003	3.9060e-003
tblVehicleEF	LDT1	8.3600e-004	9.2500e-004
tblVehicleEF	LDT1	0.24	0.17
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.16	0.11

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.26	0.85
tblVehicleEF	LDT1	0.35	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.02	2.28
tblVehicleEF	LDT1	3.78	3.37
tblVehicleEF	LDT1	361.85	313.77
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.16	0.20
tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.27	0.26
tblVehicleEF	LDT1	3.6450e-003	4.2860e-003
tblVehicleEF	LDT1	8.2200e-004	9.0700e-004
tblVehicleEF	LDT1	0.57	0.41
tblVehicleEF	LDT1	0.55	0.32
tblVehicleEF	LDT1	0.35	0.25
tblVehicleEF	LDT1	0.06	0.07

tblVehicleEF	LDT1	0.26	0.83
tblVehicleEF	LDT1	0.29	0.28
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	1.55	1.75
tblVehicleEF	LDT1	5.62	5.82
tblVehicleEF	LDT1	317.61	275.63
tblVehicleEF	LDT1	75.49	64.89
tblVehicleEF	LDT1	0.20	0.23
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	2.7610e-003	2.8470e-003
tblVehicleEF	LDT1	4.2630e-003	4.9330e-003
tblVehicleEF	LDT1	2.5440e-003	2.6370e-003
tblVehicleEF	LDT1	3.9210e-003	4.5720e-003
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.32	1.02
tblVehicleEF	LDT1	0.39	0.40
tblVehicleEF	LDT1	3.1960e-003	3.7540e-003
tblVehicleEF	LDT1	8.5500e-004	9.5000e-004
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.43	0.24
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.32	1.02

tblVehicleEF	LDT1	0.42	0.43
tblVehicleEF	LDT2	6.9890e-003	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.89	1.10
tblVehicleEF	LDT2	2.27	2.62
tblVehicleEF	LDT2	375.67	353.20
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.11	0.14
tblVehicleEF	LDT2	0.20	0.22
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.15	0.18
tblVehicleEF	LDT2	3.7640e-003	4.5830e-003
tblVehicleEF	LDT2	9.0200e-004	1.0500e-003
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.45
tblVehicleEF	LDT2	0.17	0.20

tblVehicleEF	LDT2	8.0510e-003	0.01
tblVehicleEF	LDT2	9.4610e-003	0.01
tblVehicleEF	LDT2	1.10	1.36
tblVehicleEF	LDT2	1.89	1.97
tblVehicleEF	LDT2	412.53	387.93
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	4.1360e-003	5.0390e-003
tblVehicleEF	LDT2	8.9500e-004	1.0390e-003
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.21	0.17
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.09	0.44
tblVehicleEF	LDT2	0.14	0.16
tblVehicleEF	LDT2	6.5610e-003	0.01

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.82	1.02
tblVehicleEF	LDT2	2.78	3.44
tblVehicleEF	LDT2	360.87	339.25
tblVehicleEF	LDT2	86.28	79.52
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.22	0.24
tblVehicleEF	LDT2	1.5950e-003	1.6220e-003
tblVehicleEF	LDT2	2.4140e-003	3.4570e-003
tblVehicleEF	LDT2	1.4670e-003	1.5020e-003
tblVehicleEF	LDT2	2.2190e-003	3.2040e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.18	0.23
tblVehicleEF	LDT2	3.6150e-003	4.4010e-003
tblVehicleEF	LDT2	9.1100e-004	1.0650e-003
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.17	0.14
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.11	0.53
tblVehicleEF	LDT2	0.20	0.24
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.48	1.64
tblVehicleEF	LHD1	2.81	4.04
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.24	1.31
tblVehicleEF	LHD1	1.02	1.14
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.28	0.34

tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9250e-003	7.9200e-003
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tblVehicleEF	LHD1	3.9680e-003	3.0050e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6320e-003	1.3050e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.31	0.36
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.52	1.68
tblVehicleEF	LHD1	2.61	2.92
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.12	1.23
tblVehicleEF	LHD1	0.96	1.08
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.8100e-004	8.4500e-004

tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	9.1960e-003	7.0320e-003
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.17	0.16
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.27	0.28
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
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tblVehicleEF	LHD1	9.1960e-003	7.0320e-003
tblVehicleEF	LHD1	0.13	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.5890e-003	2.9470e-003
tblVehicleEF	LHD1	0.21	0.19
tblVehicleEF	LHD1	0.31	0.38
tblVehicleEF	LHD1	0.29	0.30
tblVehicleEF	LHD1	5.4410e-003	1.1440e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.45	1.60

tblVehicleEF	LHD1	3.07	5.43
tblVehicleEF	LHD1	9.35	8.26
tblVehicleEF	LHD1	705.59	735.85
tblVehicleEF	LHD1	30.27	35.75
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	2.29	1.35
tblVehicleEF	LHD1	1.09	1.22
tblVehicleEF	LHD1	1.0490e-003	7.6900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	9.5140e-003
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tblVehicleEF	LHD1	9.8100e-004	8.4500e-004
tblVehicleEF	LHD1	1.0040e-003	7.0700e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5340e-003	2.3790e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0300e-004	7.7800e-004
tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	0.34	0.42
tblVehicleEF	LHD1	0.30	0.41
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	6.9240e-003	7.9200e-003
tblVehicleEF	LHD1	3.6000e-004	4.8600e-004

tblVehicleEF	LHD1	1.1450e-003	8.3700e-004
tblVehicleEF	LHD1	0.11	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	6.5800e-004	5.0500e-004
tblVehicleEF	LHD1	0.20	0.18
tblVehicleEF	LHD1	0.34	0.42
tblVehicleEF	LHD1	0.33	0.44
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.04
tblVehicleEF	LHD2	1.49	2.10
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.84	1.78
tblVehicleEF	LHD2	0.65	0.69
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004
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tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.15	0.18
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
tblVehicleEF	LHD2	1.8440e-003	1.5090e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.9800e-004	6.8100e-004
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.20
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.85	1.05
tblVehicleEF	LHD2	1.39	1.53
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90

tblVehicleEF	LHD2	0.12	0.12
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tblVehicleEF	LHD2	0.62	0.65
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
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tblVehicleEF	LHD2	4.2480e-003	3.5140e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.7360e-003	1.5230e-003

tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	0.12	0.20
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	4.0850e-003	8.7900e-004
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.84	1.03
tblVehicleEF	LHD2	1.62	2.80
tblVehicleEF	LHD2	14.33	9.02
tblVehicleEF	LHD2	742.00	638.17
tblVehicleEF	LHD2	25.95	22.90
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tblVehicleEF	LHD2	0.70	0.74
tblVehicleEF	LHD2	1.3140e-003	1.3040e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.7300e-004	3.9700e-004
tblVehicleEF	LHD2	1.2570e-003	1.1990e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6680e-003	2.6160e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.3500e-004	3.6700e-004
tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.16	0.22
tblVehicleEF	LHD2	1.4000e-004	9.7000e-005
tblVehicleEF	LHD2	7.2250e-003	6.7920e-003
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tblVehicleEF	LHD2	5.5000e-004	4.3400e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.2700e-004	2.6800e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.13	0.23
tblVehicleEF	LHD2	0.17	0.23
tblVehicleEF	MCY	0.40	0.00
tblVehicleEF	MCY	0.17	0.00
tblVehicleEF	MCY	22.73	30.58
tblVehicleEF	MCY	9.98	10.57
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.19	1.27
tblVehicleEF	MCY	0.32	0.31
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003

tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47
tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.29	2.97
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.26	2.17
tblVehicleEF	MCY	2.0690e-003	2.2610e-003
tblVehicleEF	MCY	7.1600e-004	6.6700e-004
tblVehicleEF	MCY	1.65	1.18
tblVehicleEF	MCY	1.02	0.47
tblVehicleEF	MCY	0.91	0.63
tblVehicleEF	MCY	2.77	3.23
tblVehicleEF	MCY	0.64	1.38
tblVehicleEF	MCY	2.46	2.33
tblVehicleEF	MCY	0.39	0.00
tblVehicleEF	MCY	0.14	0.00
tblVehicleEF	MCY	23.07	31.02
tblVehicleEF	MCY	9.18	8.97
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78
tblVehicleEF	MCY	1.03	1.10
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.01	0.04

tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.22	2.90
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	1.91	1.83
tblVehicleEF	MCY	2.0720e-003	2.2660e-003
tblVehicleEF	MCY	6.9200e-004	6.3100e-004
tblVehicleEF	MCY	4.06	2.93
tblVehicleEF	MCY	1.54	0.80
tblVehicleEF	MCY	2.35	1.77
tblVehicleEF	MCY	2.68	3.17
tblVehicleEF	MCY	0.62	1.34
tblVehicleEF	MCY	2.08	1.97
tblVehicleEF	MCY	0.42	0.00
tblVehicleEF	MCY	0.20	0.00
tblVehicleEF	MCY	24.56	33.17
tblVehicleEF	MCY	11.53	12.84
tblVehicleEF	MCY	163.41	155.29
tblVehicleEF	MCY	48.59	39.78

tblVehicleEF	MCY	1.30	1.38
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	0.01	0.04
tblVehicleEF	MCY	4.0000e-003	8.0000e-003
tblVehicleEF	MCY	1.7080e-003	4.1600e-004
tblVehicleEF	MCY	4.0620e-003	1.0910e-003
tblVehicleEF	MCY	5.0400e-003	0.02
tblVehicleEF	MCY	1.0000e-003	2.0000e-003
tblVehicleEF	MCY	1.6040e-003	3.4600e-004
tblVehicleEF	MCY	3.8470e-003	8.9500e-004
tblVehicleEF	MCY	0.38	0.25
tblVehicleEF	MCY	1.05	0.45
tblVehicleEF	MCY	0.23	0.12
tblVehicleEF	MCY	2.43	3.10
tblVehicleEF	MCY	0.74	1.68
tblVehicleEF	MCY	2.73	2.62
tblVehicleEF	MCY	2.1020e-003	2.3060e-003
tblVehicleEF	MCY	7.5500e-004	7.1700e-004
tblVehicleEF	MCY	0.38	0.25
tblVehicleEF	MCY	1.05	0.45
tblVehicleEF	MCY	0.23	0.12
tblVehicleEF	MCY	2.93	3.38
tblVehicleEF	MCY	0.74	1.68
tblVehicleEF	MCY	2.97	2.82
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.62	1.87

tblVehicleEF	MDV	4.21	4.68
tblVehicleEF	MDV	515.99	470.46
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.21	0.27
tblVehicleEF	MDV	0.39	0.43
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.34	0.39
tblVehicleEF	MDV	5.1750e-003	5.8400e-003
tblVehicleEF	MDV	1.2390e-003	1.3540e-003
tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.14	0.65
tblVehicleEF	MDV	0.37	0.42
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.98	2.29
tblVehicleEF	MDV	3.53	3.54

tblVehicleEF	MDV	565.23	516.17
tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.37	0.39
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.28	0.32
tblVehicleEF	MDV	5.6720e-003	6.4150e-003
tblVehicleEF	MDV	1.2260e-003	1.3340e-003
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.28	0.26
tblVehicleEF	MDV	0.20	0.19
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.13	0.64
tblVehicleEF	MDV	0.30	0.34
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	1.52	1.75
tblVehicleEF	MDV	5.12	6.12
tblVehicleEF	MDV	496.21	452.10

tblVehicleEF	MDV	116.39	105.12
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.44	0.47
tblVehicleEF	MDV	1.6840e-003	1.8930e-003
tblVehicleEF	MDV	2.5830e-003	3.7550e-003
tblVehicleEF	MDV	1.5550e-003	1.7470e-003
tblVehicleEF	MDV	2.3790e-003	3.4720e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.40	0.48
tblVehicleEF	MDV	4.9760e-003	5.6100e-003
tblVehicleEF	MDV	1.2550e-003	1.3800e-003
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.24	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.16	0.77
tblVehicleEF	MDV	0.44	0.51
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.83	2.40
tblVehicleEF	MH	7.32	7.33
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69

tblVehicleEF	MH	2.10	1.71
tblVehicleEF	MH	0.99	0.76
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tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.17	0.12
tblVehicleEF	MH	0.03	1.77
tblVehicleEF	MH	0.44	0.40
tblVehicleEF	MH	0.01	7.7070e-003
tblVehicleEF	MH	7.1900e-004	4.2800e-004
tblVehicleEF	MH	1.78	1.30
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.45	0.34
tblVehicleEF	MH	0.23	0.15
tblVehicleEF	MH	0.03	1.77
tblVehicleEF	MH	0.48	0.43
tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	3.98	2.48

tblVehicleEF	MH	6.63	5.21
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
tblVehicleEF	MH	1.95	1.59
tblVehicleEF	MH	0.93	0.72
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	4.16	3.02
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	1.02	0.77
tblVehicleEF	MH	0.17	0.12
tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.41	0.33
tblVehicleEF	MH	0.01	7.7080e-003
tblVehicleEF	MH	7.0800e-004	3.9300e-004
tblVehicleEF	MH	4.16	3.02
tblVehicleEF	MH	0.12	0.09
tblVehicleEF	MH	1.02	0.77
tblVehicleEF	MH	0.24	0.15
tblVehicleEF	MH	0.03	1.75
tblVehicleEF	MH	0.44	0.35

tblVehicleEF	MH	0.05	0.00
tblVehicleEF	MH	0.04	0.00
tblVehicleEF	MH	3.72	2.33
tblVehicleEF	MH	8.22	10.01
tblVehicleEF	MH	1,232.21	715.32
tblVehicleEF	MH	59.12	27.69
tblVehicleEF	MH	2.17	1.77
tblVehicleEF	MH	1.06	0.81
tblVehicleEF	MH	0.13	0.05
tblVehicleEF	MH	0.01	8.7050e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.4730e-003	8.2000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2450e-003	2.1760e-003
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	1.3610e-003	7.4600e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16
tblVehicleEF	MH	0.16	0.12
tblVehicleEF	MH	0.03	1.89
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tblVehicleEF	MH	0.01	7.7060e-003
tblVehicleEF	MH	7.3500e-004	4.7300e-004
tblVehicleEF	MH	0.48	0.35
tblVehicleEF	MH	0.12	0.08
tblVehicleEF	MH	0.22	0.16

tblVehicleEF	MH	0.22	0.14
tblVehicleEF	MH	0.03	1.89
tblVehicleEF	MH	0.52	0.53
tblVehicleEF	MHD	0.02	8.5650e-003
tblVehicleEF	MHD	8.8450e-003	6.9360e-003
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tblVehicleEF	MHD	0.58	0.89
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tblVehicleEF	MHD	1,213.16	1,020.46
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tblVehicleEF	MHD	16.04	1.63
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	1.4030e-003	3.7470e-003
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tblVehicleEF	MHD	0.05	0.18
tblVehicleEF	MHD	5.6100e-004	1.6450e-003
tblVehicleEF	MHD	0.14	0.17
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.26	1.08
tblVehicleEF	MHD	2.0340e-003	5.9880e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7200e-004	8.8400e-004
tblVehicleEF	MHD	1.4030e-003	3.7470e-003
tblVehicleEF	MHD	0.04	0.11
tblVehicleEF	MHD	0.06	0.21
tblVehicleEF	MHD	5.6100e-004	1.6450e-003
tblVehicleEF	MHD	0.16	0.20
tblVehicleEF	MHD	0.01	0.48
tblVehicleEF	MHD	0.28	1.16
tblVehicleEF	MHD	0.02	8.0720e-003
tblVehicleEF	MHD	8.9450e-003	6.9360e-003
tblVehicleEF	MHD	0.07	0.00
tblVehicleEF	MHD	0.30	1.41
tblVehicleEF	MHD	0.58	0.91
tblVehicleEF	MHD	4.09	12.96
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tblVehicleEF	MHD	1,213.16	1,020.46
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tblVehicleEF	MHD	16.01	1.54

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tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
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tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
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tblVehicleEF	MHD	3.6700e-004	8.0100e-004
tblVehicleEF	MHD	3.3430e-003	9.0420e-003
tblVehicleEF	MHD	0.05	0.13
tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	1.3130e-003	3.9120e-003
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tblVehicleEF	MHD	0.01	0.49
tblVehicleEF	MHD	0.27	0.94

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tblVehicleEF	MHD	16.09	1.74
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.13	0.12
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.05	0.07
tblVehicleEF	MHD	6.4700e-004	2.3030e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	3.0000e-003	2.8420e-003
tblVehicleEF	MHD	0.05	0.06
tblVehicleEF	MHD	5.9500e-004	2.0160e-003
tblVehicleEF	MHD	3.6800e-004	9.4700e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.05	0.20
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
tblVehicleEF	MHD	0.14	0.17

tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.28	1.35
tblVehicleEF	MHD	1.8690e-003	5.4970e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.7900e-004	9.9000e-004
tblVehicleEF	MHD	3.6800e-004	9.4700e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.06	0.23
tblVehicleEF	MHD	2.0400e-004	5.7100e-004
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tblVehicleEF	MHD	0.01	0.53
tblVehicleEF	MHD	0.30	1.44
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tblVehicleEF	OBUS	0.02	2.6780e-003
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tblVehicleEF	OBUS	1.12	5.14
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tblVehicleEF	OBUS	4.04	1.61
tblVehicleEF	OBUS	5.2900e-004	0.01
tblVehicleEF	OBUS	0.13	0.09
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	5.0600e-004	9.3200e-003
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tblVehicleEF	OBUS	2.9240e-003	1.2430e-003
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tblVehicleEF	OBUS	1.6770e-003	5.6610e-003
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tblVehicleEF	OBUS	0.06	0.50
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tblVehicleEF	OBUS	0.02	2.6780e-003
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tblVehicleEF	OBUS	0.01	0.04
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tblVehicleEF	OBUS	4.13	1.72
tblVehicleEF	OBUS	6.4400e-004	0.01
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	8.5200e-004	7.7800e-004
tblVehicleEF	OBUS	6.1600e-004	0.01

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tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.47
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tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.51	0.87
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0300e-004	6.5000e-004
tblVehicleEF	OBUS	8.7100e-004	3.6600e-004
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tblVehicleEF	OBUS	0.14	0.19
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tblVehicleEF	OBUS	0.56	0.93
tblVehicleEF	SBUS	0.87	4.3860e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.09	0.00
tblVehicleEF	SBUS	3.94	1.02
tblVehicleEF	SBUS	0.85	5.68
tblVehicleEF	SBUS	4.53	37.12

tblVehicleEF	SBUS	1,369.86	556.78
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14
tblVehicleEF	SBUS	14.90	7.66
tblVehicleEF	SBUS	5.99	7.20
tblVehicleEF	SBUS	17.31	2.30
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	3.2380e-003	0.06
tblVehicleEF	SBUS	0.02	0.26
tblVehicleEF	SBUS	0.47	0.09
tblVehicleEF	SBUS	9.2100e-004	0.02
tblVehicleEF	SBUS	0.13	0.51
tblVehicleEF	SBUS	0.01	1.90
tblVehicleEF	SBUS	0.23	2.51
tblVehicleEF	SBUS	0.01	5.7740e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	3.1300e-004	1.9870e-003
tblVehicleEF	SBUS	3.2380e-003	0.06

tblVehicleEF	SBUS	0.02	0.26
tblVehicleEF	SBUS	0.66	0.11
tblVehicleEF	SBUS	9.2100e-004	0.02
tblVehicleEF	SBUS	0.16	0.56
tblVehicleEF	SBUS	0.01	1.90
tblVehicleEF	SBUS	0.25	2.68
tblVehicleEF	SBUS	0.87	4.1340e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.07	0.00
tblVehicleEF	SBUS	3.75	0.74
tblVehicleEF	SBUS	0.86	5.82
tblVehicleEF	SBUS	3.04	29.22
tblVehicleEF	SBUS	1,444.37	589.86
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14
tblVehicleEF	SBUS	15.38	7.91
tblVehicleEF	SBUS	5.69	6.80
tblVehicleEF	SBUS	17.28	2.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04

tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	7.4420e-003	0.13
tblVehicleEF	SBUS	0.02	0.29
tblVehicleEF	SBUS	0.47	0.09
tblVehicleEF	SBUS	2.0250e-003	0.04
tblVehicleEF	SBUS	0.14	0.53
tblVehicleEF	SBUS	0.01	1.74
tblVehicleEF	SBUS	0.19	2.09
tblVehicleEF	SBUS	0.01	6.1170e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.8800e-004	1.8500e-003
tblVehicleEF	SBUS	7.4420e-003	0.13
tblVehicleEF	SBUS	0.02	0.29
tblVehicleEF	SBUS	0.66	0.10
tblVehicleEF	SBUS	2.0250e-003	0.04
tblVehicleEF	SBUS	0.16	0.58
tblVehicleEF	SBUS	0.01	1.74
tblVehicleEF	SBUS	0.20	2.23
tblVehicleEF	SBUS	0.87	4.7350e-003
tblVehicleEF	SBUS	0.01	5.3510e-003
tblVehicleEF	SBUS	0.11	0.00
tblVehicleEF	SBUS	4.20	1.41
tblVehicleEF	SBUS	0.83	5.71
tblVehicleEF	SBUS	6.14	47.55
tblVehicleEF	SBUS	1,266.97	511.10
tblVehicleEF	SBUS	1,188.59	1,052.25
tblVehicleEF	SBUS	23.47	122.14

tblVehicleEF	SBUS	14.24	7.32
tblVehicleEF	SBUS	6.11	7.37
tblVehicleEF	SBUS	17.34	2.48
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.74	0.55
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.05
tblVehicleEF	SBUS	4.1100e-004	7.5290e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.32	0.24
tblVehicleEF	SBUS	2.8270e-003	2.7300e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.7800e-004	6.5700e-003
tblVehicleEF	SBUS	9.3700e-004	0.01
tblVehicleEF	SBUS	0.02	0.30
tblVehicleEF	SBUS	0.48	0.10
tblVehicleEF	SBUS	4.5400e-004	7.0720e-003
tblVehicleEF	SBUS	0.13	0.50
tblVehicleEF	SBUS	0.02	2.28
tblVehicleEF	SBUS	0.28	3.03
tblVehicleEF	SBUS	0.01	5.3000e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	3.4000e-004	2.1670e-003
tblVehicleEF	SBUS	9.3700e-004	0.01
tblVehicleEF	SBUS	0.02	0.30
tblVehicleEF	SBUS	0.67	0.12
tblVehicleEF	SBUS	4.5400e-004	7.0720e-003

tblVehicleEF	SBUS	0.16	0.55
tblVehicleEF	SBUS	0.02	2.28
tblVehicleEF	SBUS	0.30	3.24
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	8.78	3.99
tblVehicleEF	UBUS	10.27	13.14
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	8.97	8.73
tblVehicleEF	UBUS	14.01	1.96
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	6.5800e-003	6.3350e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
tblVehicleEF	UBUS	0.71	0.55
tblVehicleEF	UBUS	0.01	0.46
tblVehicleEF	UBUS	0.89	1.08
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4410e-003	6.7000e-004

tblVehicleEF	UBUS	6.5800e-003	6.3350e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.8920e-003	2.7680e-003
tblVehicleEF	UBUS	2.85	0.62
tblVehicleEF	UBUS	0.01	0.46
tblVehicleEF	UBUS	0.97	1.16
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	8.83	4.07
tblVehicleEF	UBUS	8.29	10.34
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	8.51	8.24
tblVehicleEF	UBUS	13.91	1.84
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003
tblVehicleEF	UBUS	0.72	0.56
tblVehicleEF	UBUS	0.01	0.44

tblVehicleEF	UBUS	0.78	0.95
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4060e-003	6.2200e-004
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.2720e-003	6.2560e-003
tblVehicleEF	UBUS	2.86	0.63
tblVehicleEF	UBUS	0.01	0.44
tblVehicleEF	UBUS	0.86	1.01
tblVehicleEF	UBUS	2.05	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	8.73	3.91
tblVehicleEF	UBUS	12.62	16.53
tblVehicleEF	UBUS	1,981.19	1,800.22
tblVehicleEF	UBUS	125.24	39.57
tblVehicleEF	UBUS	9.15	8.93
tblVehicleEF	UBUS	14.13	2.10
tblVehicleEF	UBUS	0.55	0.61
tblVehicleEF	UBUS	0.01	8.0000e-003
tblVehicleEF	UBUS	0.14	0.15
tblVehicleEF	UBUS	8.4600e-004	3.5600e-004
tblVehicleEF	UBUS	0.24	0.26
tblVehicleEF	UBUS	3.0000e-003	2.0000e-003
tblVehicleEF	UBUS	0.14	0.14
tblVehicleEF	UBUS	7.7800e-004	3.3100e-004
tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08

tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	0.71	0.54
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.00	1.25
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	1.4810e-003	7.2800e-004
tblVehicleEF	UBUS	2.1400e-003	1.9900e-003
tblVehicleEF	UBUS	0.08	0.08
tblVehicleEF	UBUS	1.4110e-003	1.2820e-003
tblVehicleEF	UBUS	2.84	0.60
tblVehicleEF	UBUS	0.01	0.57
tblVehicleEF	UBUS	1.10	1.33
tblVehicleTrips	CNW_TTP	0.00	50.00
tblVehicleTrips	CW_TTP	0.00	50.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

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					
2020	0.8949	9.5525	6.4921	0.0254	10.0544	0.3694	10.4238	1.1247	0.3459	1.4705	0.0000	2,316.7853	2,316.7853	0.2656	0.0000	2,323.4263
Maximum	**0.8949**	**9.5525**	**6.4921**	**0.0254**	**10.0544**	**0.3694**	**10.4238**	**1.1247**	**0.3459**	**1.4705**	**0.0000**	**2,316.7853**	**2,316.7853**	**0.2656**	**0.0000**	**2,323.4263**

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					
2020	0.4916	7.9360	7.6347	0.0254	6.4184	0.2301	6.6485	0.7610	0.2285	0.9895	0.0000	2,316.7843	2,316.7843	0.2656	0.0000	2,323.4253
Maximum	**0.4916**	**7.9360**	**7.6347**	**0.0254**	**6.4184**	**0.2301**	**6.6485**	**0.7610**	**0.2285**	**0.9895**	**0.0000**	**2,316.7843**	**2,316.7843**	**0.2656**	**0.0000**	**2,323.4253**

	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	**45.07**	**16.92**	**-17.60**	**0.00**	**36.16**	**37.71**	**36.22**	**32.33**	**33.95**	**32.71**	**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)
2	11-9-2019	2-8-2020	0.1460	0.0937
3	2-9-2020	5-8-2020	6.3806	5.1107
4	5-9-2020	8-8-2020	3.5937	2.9558
		Highest	6.3806	5.1107

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	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.1593	1.4951	1.0185	3.0400e-003		0.0606	0.0606		0.0568	0.0568	0.0000	266.1672	266.1672	0.0763	0.0000	268.0739
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	**0.1593**	**1.4951**	**1.0185**	**3.0400e-003**	**6.0000e-005**	**0.0606**	**0.0607**	**2.0000e-005**	**0.0568**	**0.0568**	**0.0000**	**266.1673**	**266.1673**	**0.0763**	**0.0000**	**268.0740**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.1593	1.4951	1.0185	3.0400e-003		0.0606	0.0606		0.0568	0.0568	0.0000	266.1672	266.1672	0.0763	0.0000	268.0739
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	**0.1593**	**1.4951**	**1.0185**	**3.0400e-003**	**6.0000e-005**	**0.0606**	**0.0607**	**2.0000e-005**	**0.0568**	**0.0568**	**0.0000**	**266.1673**	**266.1673**	**0.0763**	**0.0000**	**268.0740**

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

3.0 Construction Detail

Construction Phase

e.on Gates Solar Project: Blackbriar Battery Storage - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2020	2/5/2020	5	3	
2	Grading/Excavation	Grading	2/9/2020	2/20/2020	5	8	
3	Drainage/Utilities/Sub-Grade	Trenching	2/21/2020	3/4/2020	5	8	
4	Construction	Building Construction	3/5/2020	6/20/2020	5	78	
5	Paving	Paving	6/21/2020	6/28/2020	5	6	

Acres of Grading (Site Preparation Phase): 5

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	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Dumpers/Tenders	5	8.00	16	0.38
Site Preparation	Forklifts	2	8.00	89	0.20
Site Preparation	Generator Sets	4	8.00	84	0.74
Site Preparation	Graders	2	8.00	174	0.41
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Scrapers	2	8.00	361	0.48
Site Preparation	Skid Steer Loaders	2	8.00	64	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Crawler Tractors	2	8.00	208	0.43

Grading/Excavation	Dumpers/Tenders	5	8.00	16	0.38
Grading/Excavation	Excavators	0	8.00	162	0.38
Grading/Excavation	Forklifts	2	8.00	89	0.20
Grading/Excavation	Generator Sets	4	8.00	84	0.74
Grading/Excavation	Graders	2	8.00	174	0.41
Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Grading/Excavation	Rollers	2	8.00	80	0.38
Grading/Excavation	Rubber Tired Dozers	0	8.00	255	0.40
Grading/Excavation	Scrapers	2	8.00	361	0.48
Grading/Excavation	Skid Steer Loaders	2	8.00	64	0.37
Grading/Excavation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Drainage/Utilities/Sub-Grade	Crawler Tractors	2	8.00	208	0.43
Drainage/Utilities/Sub-Grade	Dumpers/Tenders	5	8.00	16	0.38
Drainage/Utilities/Sub-Grade	Forklifts	2	8.00	89	0.20
Drainage/Utilities/Sub-Grade	Generator Sets	4	8.00	84	0.74
Drainage/Utilities/Sub-Grade	Graders	2	8.00	174	0.41
Drainage/Utilities/Sub-Grade	Plate Compactors	2	8.00	8	0.43
Drainage/Utilities/Sub-Grade	Scrapers	2	8.00	361	0.48
Drainage/Utilities/Sub-Grade	Skid Steer Loaders	2	8.00	64	0.37
Drainage/Utilities/Sub-Grade	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Construction	Bore/Drill Rigs	10	8.00	205	0.50
Construction	Cement and Mortar Mixers	10	8.00	9	0.56
Construction	Concrete/Industrial Saws	3	4.00	81	0.73
Construction	Cranes	1	8.00	226	0.29
Construction	Dumpers/Tenders	5	8.00	16	0.38
Construction	Excavators	2	8.00	162	0.38
Construction	Forklifts	5	8.00	89	0.20

Construction	Generator Sets	4	8.00	84	0.74
Construction	Pavers	1	8.00	125	0.42
Construction	Paving Equipment	1	8.00	130	0.36
Construction	Plate Compactors	1	8.00	8	0.43
Construction	Rollers	1	8.00	80	0.38
Construction	Skid Steer Loaders	2	8.00	64	0.37
Construction	Tractors/Loaders/Backhoes	7	8.00	97	0.37
Construction	Trenchers	10	8.00	80	0.50
Construction	Welders	0	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38

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	25	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	27	50.00	25.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Sub-Grade	25	100.00	50.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Construction	63	200.00	100.00	0.00	50.00	101.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	5.00	0.00	50.00	50.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1223	0.0891	1.6000e-004		5.9100e-003	5.9100e-003		5.5400e-003	5.5400e-003	0.0000	14.0707	14.0707	3.5300e-003	0.0000	14.1591
Total	**0.0118**	**0.1223**	**0.0891**	**1.6000e-004**	**2.6500e-003**	**5.9100e-003**	**8.5600e-003**	**2.9000e-004**	**5.5400e-003**	**5.8300e-003**	**0.0000**	**14.0707**	**14.0707**	**3.5300e-003**	**0.0000**	**14.1591**

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	6.5000e-004	0.0163	2.9200e-003	6.0000e-005	0.0501	1.6000e-004	0.0502	5.3100e-003	1.5000e-004	5.4600e-003	0.0000	5.5177	5.5177	1.6000e-004	0.0000	5.5217
Worker	1.1500e-003	8.5000e-004	8.1200e-003	3.0000e-005	0.0366	2.0000e-005	0.0366	4.1100e-003	1.0000e-005	4.1300e-003	0.0000	2.3468	2.3468	6.0000e-005	0.0000	2.3482
Total	**1.8000e-003**	**0.0171**	**0.0110**	**9.0000e-005**	**0.0867**	**1.8000e-004**	**0.0869**	**9.4200e-003**	**1.6000e-004**	**9.5900e-003**	**0.0000**	**7.8644**	**7.8644**	**2.2000e-004**	**0.0000**	**7.8699**

3.2 Site Preparation - 2020

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					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0755	0.0966	1.6000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	14.0707	14.0707	3.5300e-003	0.0000	14.1591
Total	**3.6300e-003**	**0.0755**	**0.0966**	**1.6000e-004**	**1.1900e-003**	**3.9600e-003**	**5.1500e-003**	**1.3000e-004**	**3.9600e-003**	**4.0900e-003**	**0.0000**	**14.0707**	**14.0707**	**3.5300e-003**	**0.0000**	**14.1591**

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	6.5000e-004	0.0163	2.9200e-003	6.0000e-005	0.0313	1.6000e-004	0.0315	3.4400e-003	1.5000e-004	3.5900e-003	0.0000	5.5177	5.5177	1.6000e-004	0.0000	5.5217
Worker	1.1500e-003	8.5000e-004	8.1200e-003	3.0000e-005	0.0235	2.0000e-005	0.0235	2.8000e-003	1.0000e-005	2.8100e-003	0.0000	2.3468	2.3468	6.0000e-005	0.0000	2.3482
Total	**1.8000e-003**	**0.0171**	**0.0110**	**9.0000e-005**	**0.0548**	**1.8000e-004**	**0.0550**	**6.2400e-003**	**1.6000e-004**	**6.4000e-003**	**0.0000**	**7.8644**	**7.8644**	**2.2000e-004**	**0.0000**	**7.8699**

3.3 Grading/Excavation - 2020

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					2.9800e-003	0.0000	2.9800e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.3855	0.2844	5.1000e-004		0.0189	0.0189		0.0177	0.0177	0.0000	44.2866	44.2866	0.0113	0.0000	44.5685
Total	**0.0372**	**0.3855**	**0.2844**	**5.1000e-004**	**2.9800e-003**	**0.0189**	**0.0219**	**3.2000e-004**	**0.0177**	**0.0180**	**0.0000**	**44.2866**	**44.2866**	**0.0113**	**0.0000**	**44.5685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9600e-003	0.0487	8.7500e-003	1.7000e-004	0.1502	4.7000e-004	0.1506	0.0159	4.5000e-004	0.0164	0.0000	16.5530	16.5530	4.8000e-004	0.0000	16.5651
Worker	3.4400e-003	2.5400e-003	0.0244	8.0000e-005	0.1099	5.0000e-005	0.1099	0.0123	4.0000e-005	0.0124	0.0000	7.0403	7.0403	1.7000e-004	0.0000	7.0446
Total	**5.4000e-003**	**0.0513**	**0.0331**	**2.5000e-004**	**0.2601**	**5.2000e-004**	**0.2606**	**0.0283**	**4.9000e-004**	**0.0288**	**0.0000**	**23.5933**	**23.5933**	**6.5000e-004**	**0.0000**	**23.6097**

3.3 Grading/Excavation - 2020

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					1.3400e-003	0.0000	1.3400e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.2367	0.3077	5.1000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	44.2865	44.2865	0.0113	0.0000	44.5684
Total	**0.0114**	**0.2367**	**0.3077**	**5.1000e-004**	**1.3400e-003**	**0.0119**	**0.0133**	**1.4000e-004**	**0.0119**	**0.0121**	**0.0000**	**44.2865**	**44.2865**	**0.0113**	**0.0000**	**44.5684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9600e-003	0.0487	8.7500e-003	1.7000e-004	0.0939	4.7000e-004	0.0944	0.0103	4.5000e-004	0.0108	0.0000	16.5530	16.5530	4.8000e-004	0.0000	16.5651
Worker	3.4400e-003	2.5400e-003	0.0244	8.0000e-005	0.0705	5.0000e-005	0.0705	8.4000e-003	4.0000e-005	8.4400e-003	0.0000	7.0403	7.0403	1.7000e-004	0.0000	7.0446
Total	**5.4000e-003**	**0.0513**	**0.0331**	**2.5000e-004**	**0.1644**	**5.2000e-004**	**0.1649**	**0.0187**	**4.9000e-004**	**0.0192**	**0.0000**	**23.5933**	**23.5933**	**6.5000e-004**	**0.0000**	**23.6097**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0353	0.3668	0.2673	4.9000e-004		0.0177	0.0177		0.0166	0.0166	0.0000	42.2122	42.2122	0.0106	0.0000	42.4773
Total	**0.0353**	**0.3668**	**0.2673**	**4.9000e-004**		**0.0177**	**0.0177**		**0.0166**	**0.0166**	**0.0000**	**42.2122**	**42.2122**	**0.0106**	**0.0000**	**42.4773**

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	3.9200e-003	0.0975	0.0175	3.5000e-004	0.3003	9.4000e-004	0.3013	0.0319	9.0000e-004	0.0328	0.0000	33.1060	33.1060	9.7000e-004	0.0000	33.1301
Worker	6.8800e-003	5.0800e-003	0.0487	1.6000e-004	0.2198	1.0000e-004	0.2199	0.0247	9.0000e-005	0.0248	0.0000	14.0807	14.0807	3.4000e-004	0.0000	14.0892
Total	**0.0108**	**0.1026**	**0.0662**	**5.1000e-004**	**0.5201**	**1.0400e-003**	**0.5211**	**0.0565**	**9.9000e-004**	**0.0575**	**0.0000**	**47.1866**	**47.1866**	**1.3100e-003**	**0.0000**	**47.2194**

3.4 Drainage/Utilities/Sub-Grade - 2020

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	0.0109	0.2264	0.2899	4.9000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	42.2122	42.2122	0.0106	0.0000	42.4773
Total	**0.0109**	**0.2264**	**0.2899**	**4.9000e-004**		**0.0119**	**0.0119**		**0.0119**	**0.0119**	**0.0000**	**42.2122**	**42.2122**	**0.0106**	**0.0000**	**42.4773**

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	3.9200e-003	0.0975	0.0175	3.5000e-004	0.1878	9.4000e-004	0.1887	0.0206	9.0000e-004	0.0215	0.0000	33.1060	33.1060	9.7000e-004	0.0000	33.1301
Worker	6.8800e-003	5.0800e-003	0.0487	1.6000e-004	0.1410	1.0000e-004	0.1411	0.0168	9.0000e-005	0.0169	0.0000	14.0807	14.0807	3.4000e-004	0.0000	14.0892
Total	**0.0108**	**0.1026**	**0.0662**	**5.1000e-004**	**0.3287**	**1.0400e-003**	**0.3298**	**0.0374**	**9.9000e-004**	**0.0384**	**0.0000**	**47.1866**	**47.1866**	**1.3100e-003**	**0.0000**	**47.2194**

3.5 Construction - 2020

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	0.5410	5.2807	4.3037	8.8400e-003		0.2892	0.2892		0.2702	0.2702	0.0000	765.2116	765.2116	0.2097	0.0000	770.4547
Total	**0.5410**	**5.2807**	**4.3037**	**8.8400e-003**		**0.2892**	**0.2892**		**0.2702**	**0.2702**	**0.0000**	**765.2116**	**765.2116**	**0.2097**	**0.0000**	**770.4547**

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	0.1306	3.1044	0.5691	0.0118	5.3929	0.0326	5.4255	0.6045	0.0312	0.6357	0.0000	1,124.4785	1,124.4785	0.0210	0.0000	1,125.0032
Worker	0.1177	0.0870	0.8333	2.6600e-003	3.7602	1.6500e-003	3.7618	0.4222	1.5200e-003	0.4237	0.0000	240.9356	240.9356	5.8600e-003	0.0000	241.0821
Total	**0.2482**	**3.1914**	**1.4024**	**0.0145**	**9.1531**	**0.0343**	**9.1873**	**1.0267**	**0.0327**	**1.0594**	**0.0000**	**1,365.4140**	**1,365.4140**	**0.0269**	**0.0000**	**1,366.0853**

3.5 Construction - 2020

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	0.1976	4.0064	5.3867	8.8400e-003		0.1653	0.1653		0.1653	0.1653	0.0000	765.2107	765.2107	0.2097	0.0000	770.4537
Total	**0.1976**	**4.0064**	**5.3867**	**8.8400e-003**		**0.1653**	**0.1653**		**0.1653**	**0.1653**	**0.0000**	**765.2107**	**765.2107**	**0.2097**	**0.0000**	**770.4537**

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	0.1306	3.1044	0.5691	0.0118	3.4379	0.0326	3.4705	0.4090	0.0312	0.4402	0.0000	1,124.4785	1,124.4785	0.0210	0.0000	1,125.0032
Worker	0.1177	0.0870	0.8333	2.6600e-003	2.4119	1.6500e-003	2.4136	0.2874	1.5200e-003	0.2889	0.0000	240.9356	240.9356	5.8600e-003	0.0000	241.0821
Total	**0.2482**	**3.1914**	**1.4024**	**0.0145**	**5.8498**	**0.0343**	**5.8840**	**0.6963**	**0.0327**	**0.7291**	**0.0000**	**1,365.4140**	**1,365.4140**	**0.0269**	**0.0000**	**1,366.0853**

3.6 Paving - 2020

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	2.8000e-003	0.0293	0.0312	5.0000e-005		1.5200e-003	1.5200e-003		1.3900e-003	1.3900e-003	0.0000	4.3243	4.3243	1.4000e-003	0.0000	4.3593
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0293**	**0.0312**	**5.0000e-005**		**1.5200e-003**	**1.5200e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**4.3243**	**4.3243**	**1.4000e-003**	**0.0000**	**4.3593**

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	2.2000e-004	5.4200e-003	9.7000e-004	2.0000e-005	0.0167	5.0000e-005	0.0167	1.7700e-003	5.0000e-005	1.8200e-003	0.0000	1.8392	1.8392	5.0000e-005	0.0000	1.8406
Worker	3.8000e-004	2.8000e-004	2.7100e-003	1.0000e-005	0.0122	1.0000e-005	0.0122	1.3700e-003	0.0000	1.3800e-003	0.0000	0.7823	0.7823	2.0000e-005	0.0000	0.7827
Total	**6.0000e-004**	**5.7000e-003**	**3.6800e-003**	**3.0000e-005**	**0.0289**	**6.0000e-005**	**0.0290**	**3.1400e-003**	**5.0000e-005**	**3.2000e-003**	**0.0000**	**2.6215**	**2.6215**	**7.0000e-005**	**0.0000**	**2.6233**

3.6 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2000e-003	0.0232	0.0374	5.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	4.3243	4.3243	1.4000e-003	0.0000	4.3593
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**0.0232**	**0.0374**	**5.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**4.3243**	**4.3243**	**1.4000e-003**	**0.0000**	**4.3593**

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	2.2000e-004	5.4200e-003	9.7000e-004	2.0000e-005	0.0104	5.0000e-005	0.0105	1.1500e-003	5.0000e-005	1.2000e-003	0.0000	1.8392	1.8392	5.0000e-005	0.0000	1.8406
Worker	3.8000e-004	2.8000e-004	2.7100e-003	1.0000e-005	7.8300e-003	1.0000e-005	7.8400e-003	9.3000e-004	0.0000	9.4000e-004	0.0000	0.7823	0.7823	2.0000e-005	0.0000	0.7827
Total	**6.0000e-004**	**5.7000e-003**	**3.6800e-003**	**3.0000e-005**	**0.0183**	**6.0000e-005**	**0.0183**	**2.0800e-003**	**5.0000e-005**	**2.1400e-003**	**0.0000**	**2.6215**	**2.6215**	**7.0000e-005**	**0.0000**	**2.6233**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.05	0.05	0.05	194	194
Total	0.05	0.05	0.05	194	194

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	14.70	6.60	6.60	50.00	0.00	50.00	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	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Unmitigated	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	**0.0000**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0000**	**1.0000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	**0.0000**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0000**	**1.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	1	2.00	260	89	0.20	Diesel
Generator Sets	1	4.00	260	84	0.74	Diesel
Off-Highway Trucks	3	4.00	260	400	0.38	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					
Forklifts	4.6800e-003	0.0422	0.0384	5.0000e-005		3.1400e-003	3.1400e-003		2.8900e-003	2.8900e-003	0.0000	4.3645	4.3645	1.4100e-003	0.0000	4.3998
Generator Sets	0.0259	0.2261	0.2409	4.3000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	36.7385	36.7385	2.0700e-003	0.0000	36.7902
Off-Highway Trucks	0.1287	1.2268	0.7393	2.5600e-003		0.0447	0.0447		0.0411	0.0411	0.0000	225.0642	225.0642	0.0728	0.0000	226.8840
Total	**0.1593**	**1.4951**	**1.0185**	**3.0400e-003**		**0.0606**	**0.0606**		**0.0568**	**0.0568**	**0.0000**	**266.1672**	**266.1672**	**0.0763**	**0.0000**	**268.0739**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX D
BIOLOGICAL RESOURCES TECHNICAL REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Biological Resources Technical Report

Prepared for
EC&R Solar Development, LLC

September 2016



EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

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OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations.

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CHAPTER 1
Introduction

1.1 Overview of Findings

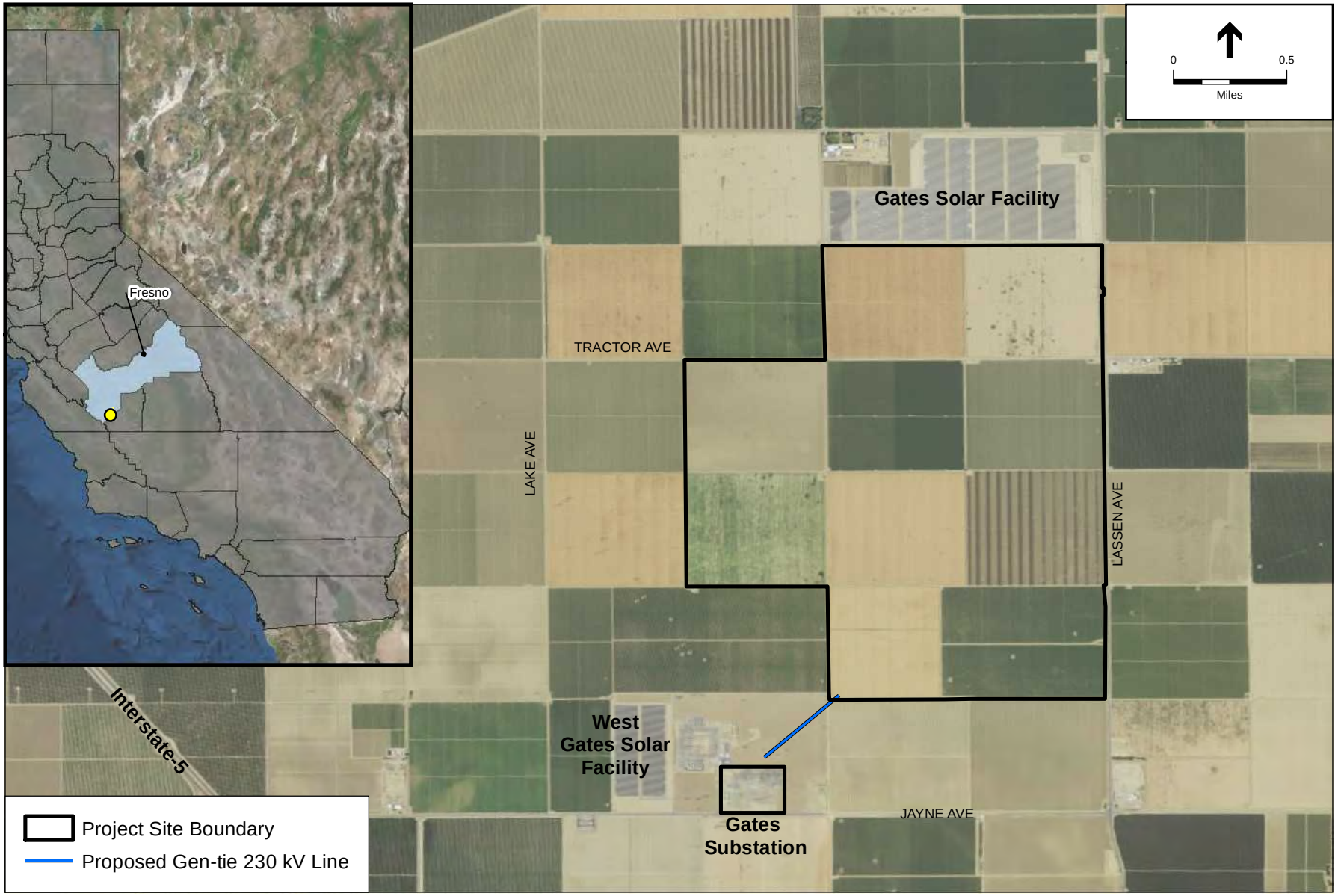
This report summarizes the findings of a biological resource reconnaissance survey performed for the Fifth Standard Solar Project Complex (the Project). The Project Applicant is EC&R Solar Development, LLC (EC&R).

The Project would be located on an approximately 1,588-acre site in unincorporated Fresno County. The Project site is located 2 miles east of Interstate 5 (I-5), 1.5 miles south of Huron, and approximately 13 miles east of Coalinga (**Figure 1**). The survey comprised the Project site and a 0.25-mile surrounding buffer area. The survey objectives were to characterize habitat for special-status plant and wildlife species, identify potential federal or state-jurisdictional waters, identify sensitive natural communities, and generally characterize other sensitive biological resources that could potentially be impacted by site development.

The Project site is located in a rural area of southeastern Fresno County that is known to support several federal or state-listed species; however, habitat for special status species is not present on the Project site and the Project would not result in any impacts on listed plant or wildlife species. The Project site is currently cultivated for agricultural production and is planted in annual crops (**Figure 2)**, as are most surrounding lands; hence, no sensitive or protected natural communities occur on the site, although there are several recorded occurrences in the surrounding area (**Figure 3**). Several potentially-jurisdictional aquatic features were identified on the eastern fringe of the Project site, including an agricultural pond located immediately adjacent to Lassen Avenue (**Figure 4**). Project design would ensure that these features would be avoided; therefore, the Project would not result in any impacts to waters of the U.S.

1.2 Project Location and Description

The Project site is located 1.5 miles south of Huron, California, in an unincorporated area of Fresno County (Figure 1). Lassen Avenue (California State Route 269) borders the eastern side of the property and is the only paved road in the immediate vicinity of the site. Trinity Avenue, Tractor Avenue, and Phelps Avenue intersect the site, but are not improved roads through the site. Other nearby communities include Avenal (10 miles south), Ora (11 miles west), Kettleman City (12 miles southeast), and Coalinga (13 miles west).



SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 1

Project Location

Surrounding land uses include farmland, the Pacific Gas and Electric Company's (PG&E's) Gates Substation and two nearby solar generating facilities (Gates Solar and West Gates Solar). The Gates Substation is located 0.4 miles southwest of the Project site. The existing West Gates Solar facility is adjacent to the Gates substation, 0.5 miles southeast of the site. The Gates Solar facility is located to the north and immediately adjacent to the Project site. Interstate 5 (I-5) is located approximately 2 miles west of the site. The Pleasant Valley Ecological Reserve is located across I-5, 6 miles west of the site (CDFW, 2016). New Coalinga Municipal Airport is located approximately 9 miles to the west of the site.

The Fifth Standard Solar Project Complex comprises three individual facilities, as follows:

1. Fifth Standard Solar, a 150 megawatt (MW) photovoltaic (PV) energy generation facility that is anticipated to require up to 1,400 acres of the Project site;

2. Stonecrop Solar, a 20 MW PV facility that will be located adjacent to Fifth Standard Solar and will require less than 200 acres of the site; and

3. Blackbriar Battery Storage, a 20 MW battery storage facility that will be located adjacent to Fifth Standard Solar and Stonecrop Solar, and will utilize less than five acres of the site.

These three facilities are expected to share a step-up transformer and a generation intertie (gen-tie) line, which will connect the facilities to the electric grid at the Gates Substation. The three facilities are proposed for processing separately, with each having its own Unclassified Conditional Use Permit so that the electricity/storage capacity from each could be sold separately or in combination.

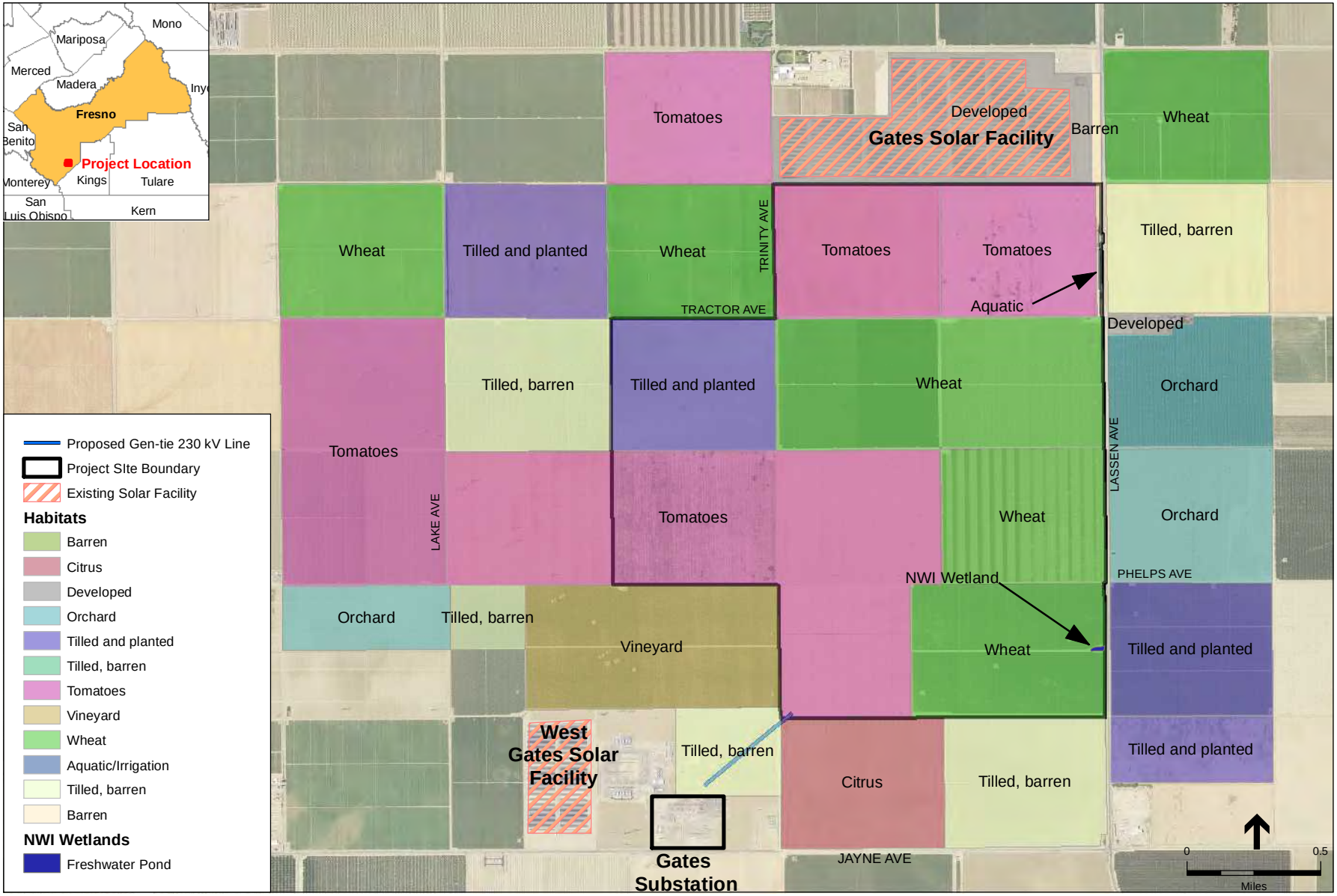
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CHAPTER 2
Survey Methodology

The biological reconnaissance survey of the Project site was performed on March 3, 2016 between 1400 hours and 1640 hours by Environmental Science Associates (ESA) wildlife biologist Brian Pittman. Weather conditions during the assessment were partly cloudy; wind 0 to 2 miles per hour (mph); air temperature ranged from 86 degrees Fahrenheit (°F) to 88°F. During the assessment, Mr. Pittman slowly drove along each of the main agricultural roads that divide the site at 1-mile increments. The survey area considered during this reconnaissance-level biological survey is illustrated in **Figure 2**, which also shows the on-site habitats and land uses that were noted during the survey. Representative photographs of the survey area are provided in **Appendix A**.

Prior to the field assessment, ESA biologists reviewed the March 2016 California Natural Diversity Database (CNDDB) records for the Project site and a surrounding 5-mile study area for reported distribution of sensitive plant and wildlife species (CDFW, 2016). CNDDB records as of July 2016 are shown in **Figure 3**. The National Wetland Inventory (NWI) mapping system was reviewed to identify whether any aquatic features have been identified in the study area. Potential aquatic features identified during the field review and from the NWI database are shown in **Figure 4**.

In addition, a list of potential threatened and endangered species that could occur on or in the vicinity of the Project site was requested from the U.S. Fish and Wildlife Service (USFWS) and is appended to this report (USFWS, 2016a; **Appendix B**) and a USFWS IPaC Trust Resources Report was generated for the analysis (USFWS, 2016b; **Appendix C**). Eleven federally listed species were identified in the USFWS' list. A description of these species and an assessment of their potential to occur in the study area is provided in **Table 1**, along with other special-status species that were identified regionally from other sources. Mr. Pittman, who performed the site review, holds a federal 10(a) Recovery Permit (#TE-027422-5) for three of the eleven species identified in the USFWS letter: vernal pool fairy shrimp (*Branchinecta lynchi*), California tiger salamander (*Ambystoma californiense*), and California red-legged frog (*Rana draytonii*). He is extremely familiar with the habitat requirements of these species, and also has extensive experience with the other species identified in the USFWS species list. The site review additionally considered the potential presence of habitat for rare plants, western pond turtle (*Actinemys marmorata*), Swainson's hawk (*Buteo swainsoni*), burrowing owl (*Athene cunicularia*), and tricolored blackbird (*Agelaius tricolor*), among other species, on the Project site and within the 0.25-mile surrounding survey area.

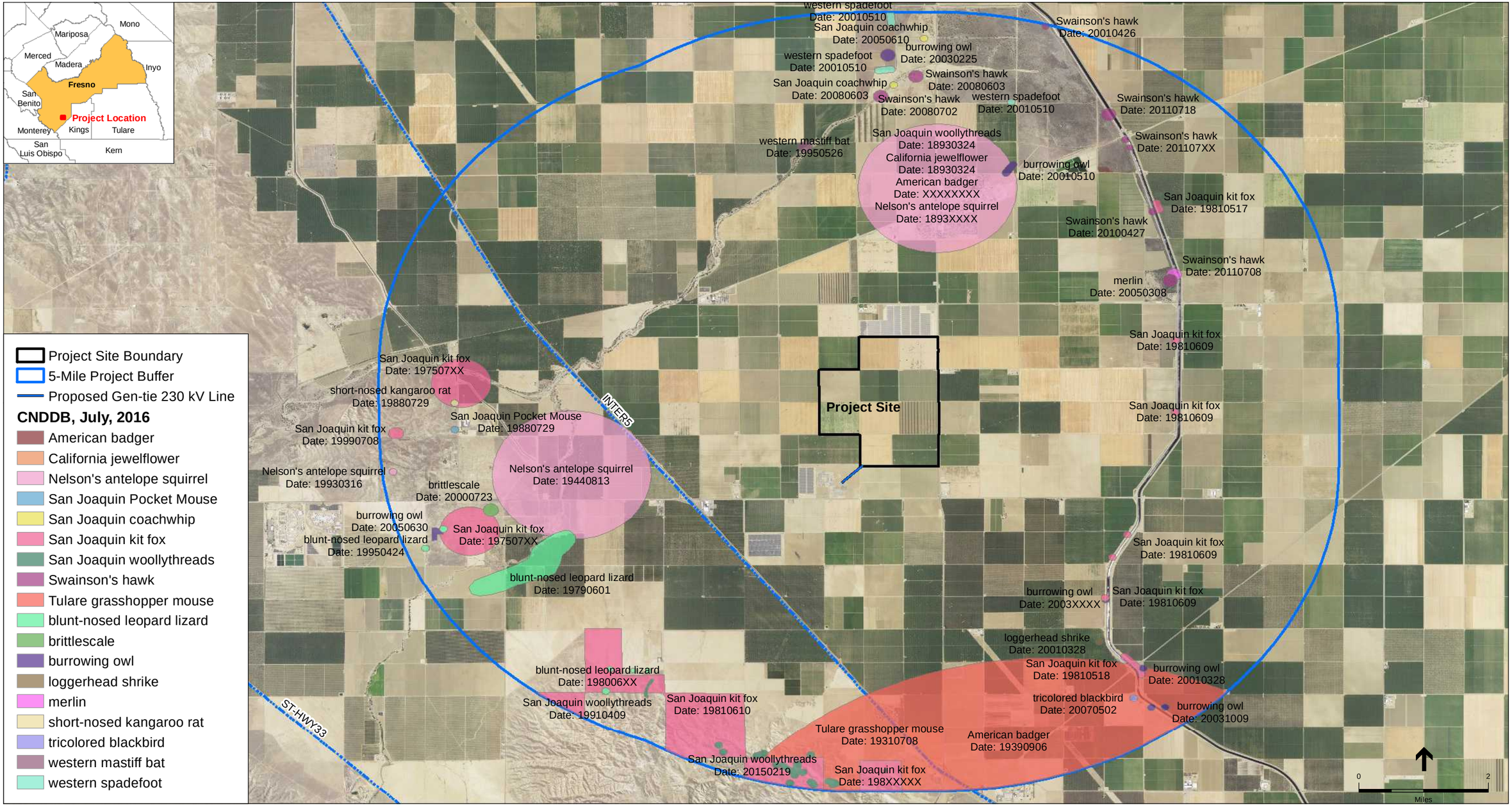


SOURCE: EC&R Solar Development, LLC, 2016 ; NWI, 2016; ESA

Fifth Standard Solar Project Complex. 120251

Figure 2

Project Site Land Use



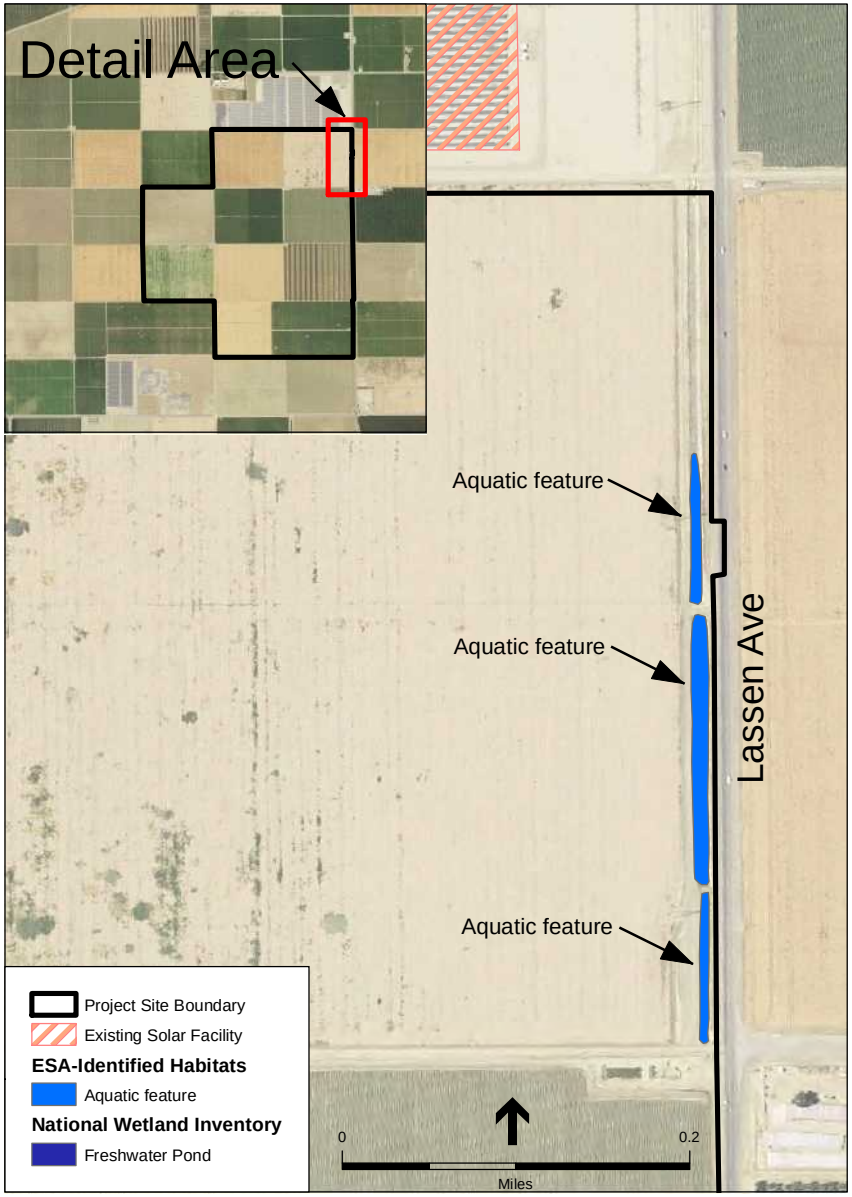
SOURCE: EC&R Solar Development, LLC, 2016; CDFW, 2016; ESA

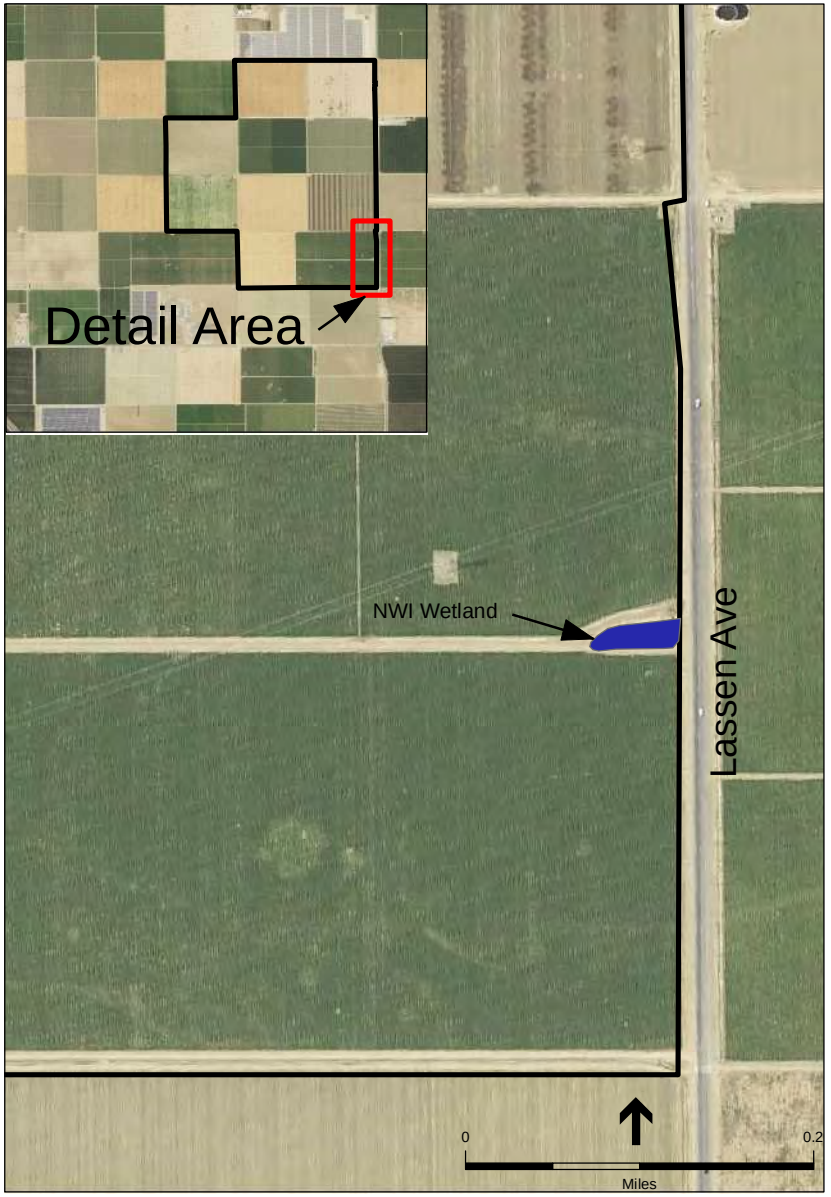
Fifth Standard Solar Project Complex. 120251

Figure 3

CNDDB Occurrences within 5-miles of the Project Site

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SOURCE: EC&R Solar Development, LLC, 2016; ESA

Fifth Standard Solar Project Complex. 120251

Figure 4

Aquatic and NWI Wetland Features on the Project Site

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CHAPTER 3
Existing Conditions

3.1 Habitat Types

Upland Habitat. The Project site and surrounding 0.25-mile survey area support the following habitat types: cultivated agricultural land, developed areas, bare soil, isolated irrigation ditches excavated in dry land, and aquatic habitat. During the biological reconnaissance survey it was verified that most of the approximately 1,588-acre Project site is under active cultivation. Agricultural crops observed during the March 16, 2016 biological reconnaissance survey included tomatoes (approximately 759 acres), wheat (approximately 660 acres), and areas recently tilled for planting (approximately 169 acres) (**Table 2**; Figure 2). The remaining area consisted of bare tilled ground, dirt roads, and unvegetated agricultural ditches.

Some areas of the Project site have been leveled, with adjacent 0.25-square mile sections at different elevations. The site is maintained such that no weeds or native plant species are present. With the exception of a few small (e.g., 20 foot square) areas beneath power towers, there were no small mammal burrows observed on the site. Fewer than a dozen small (<1-inch diameter) mouse-size holes were noted in disturbed habitat beneath one power tower (see Photo point 13[1]). With the exception of three small, isolated areas beneath three towers in the southeast portion of the site, the entire site appears to be subject to major periodic disturbance from tilling and planting. Representative photographs of agricultural areas on the Project site are provided in Appendix A.

Wetlands. The biological reconnaissance survey was intended to provide a reconnaissance-level wetland assessment and the results of this analysis are not intended to provide a formal wetland delineation. Based on the preliminary reconnaissance survey, four potentially jurisdictional aquatic features were identified on the Project site near Lassen Avenue (Figure 4). These features are likely to be considered potentially jurisdictional by the U.S. Army Corps of Engineers (potential waters of the U.S.), Regional Water Quality Control Board (waters of the State), and California Department of Fish and Wildlife. With the exception of these features, no jurisdictional waters of the U.S. or waters of the State were observed on the interior of the site. All observed irrigation drainage features appeared to be recently excavated in upland areas and do not drain to off-site areas (e.g., see Photo points 4d; 5d, and 7d).

[1] Note that all photo points referenced in this report are provided in Appendix A.

TABLE 1
SPECIAL-STATUS SPECIES

Scientific Name **Common Name**	**Listing Status USFWS/CDFW**	**General Habitat**	**Potential for Species Occurrence on or near the Project site**
FEDERAL AND/OR STATE-LISTED SPECIES			
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	FE/-- Critical habitat	Vernal pools or other areas capable of ponding water seasonally	Absent. Suitable pool habitat is not present on the Project site or within ¼-mile; no records within 5 miles of site. Species is considered absent.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/-- Critical habitat	This beetle is an obligate resident of the elderberry shrub (*Sambucus* sp.)	Absent. Elderberry shrubs are not present on the Project site; therefore this species is considered absent.
Fish			
Delta smelt *Hypomesus transpacificus*	FT/SE Critical habitat	Inhabits the freshwater-saltwater mixing zone of the San Francisco Bay/Delta estuary, except during its spawning season, when it migrates upstream to freshwater.	Absent. Riverine habitat that supports this species does not occur in the Project area.
Amphibians			
California tiger salamander *Ambystoma californiense*	FT/CT Critical habitat	Wintering sites occur in grasslands occupied by burrowing mammals; breed in stock ponds and vernal pools	Absent. No documented occurrences within 5 miles; upland and aquatic habitat that could support this species does not occur on or near the Project site.
California red-legged frog *Rana draytonii*	FT/CSC Critical habitat	Breed in stock ponds, pools, and slow-moving streams; may seasonally seek refuge or disperse into surrounding upland habitats.	Absent. No documented occurrences within 5 miles; upland and aquatic habitat that could support this species does not occur on or near the Project site.
Reptiles			
Giant garter snake *Thamnophis gigas*	FT/CT	Marshes, sloughs, canals, and irrigation ditches, especially near rice fields, and in slow-moving creeks.	Absent. Few managed agricultural ditches on the Project site are managed to convey agricultural flows and exclude vegetation. No reported occurrences within 5 miles.
Blunt-nosed leopard lizard *Gambelia silus*	FE/CE	Found in semiarid grasslands, alkali flats, and washes. Prefers flat areas with open space for running, avoiding densely vegetated areas.	Absent. Suitable habitat is not present on or adjacent to the Project site.
Birds			
Swainson's hawk *Buteo swainsoni*	--/ST	Nests in large trees, often near water, open grasslands, or agricultural lands	Low (nesting). No suitable nesting trees occur on the site; tree rows found off-site may support nesting. The site is tilled and managed to exclude Swainson's hawk forage species.

TABLE 1 (Continued)
SPECIAL-STATUS SPECIES

Scientific Name **Common Name**	**Listing Status USFWS/CDFW**	**General Habitat**	**Potential for Species Occurrence on or near the Project site**
FEDERAL AND/OR STATE-LISTED SPECIES (cont.)			
Mammals			
Nelson's antelope squirrel *Ammospermophilus nelsoni*	--/ST	Undisturbed annual grasslands with sandy, friable soils	Absent. The site is cultivated and regularly tilled. No burrows occur on-site that support this species.
Giant kangaroo rat *Dipodomys ingens*	FE/SE	Undisturbed annual grasslands with sandy, friable soils	Absent. The site is cultivated and regularly tilled. No burrows occur on-site that support this species.
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	FE/SE	Undisturbed annual grasslands with sandy, friable soils	Absent. The site is cultivated and regularly tilled. No burrows occur on-site that support this species.
San Joaquin kit fox *Vulpes macrotis mutica*	FE/ST	Annual grasslands or grassy open areas with shrubs, loose-textured soils for burrows and prey base	Low. The site is cultivated and regularly tilled. Though kit fox may occur regionally as a transient species, no habitats occur on-site that could support this species.
Plants			
California jewelflower *Caulanthus californicus*	FE/SE CRPR 1B.1	Occurs in several plant communities, including, non-native grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub	Absent. This species is not reported within 5-miles of the site; no rare plants are expected on site due to active cultivation.
San Joaquin woollythreads *Monolopia* (=*Lembertia*) *congdonii*	FE/-- CRPR 1B.2	Found in nonnative grassland, valley saltbush scrub, interior coast range saltbush scrub, and upper Sonoran subshrub scrub	Absent. Several occurrences within 5-miles of the site, but no rare plants are expected on site due to active cultivation.
NON-LISTED SPECIAL-STATUS SPECIES			
Amphibians			
Western spadefoot *Spea hammondii*	--/CSC	Breeds in open water with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, among other habitats	Absent. Suitable breeding pools do not occur on or adjacent to the site.
Reptiles			
Western pond turtle *Actinemys marmorata*	--/SC	Lakes, ponds, reservoirs, and slow-moving streams and rivers, primarily in foothills and lowlands	Absent. The site does not contain aquatic features that would support this species.
FEDERAL AND/OR STATE-LISTED SPECIES			
Birds			
Tricolored blackbird *Agelaius tricolor*	--/SC	Nests in freshwater marshes with dense stands of cattails or bulrushes, occasionally in willows, thistles, mustard, blackberry brambles, and dense shrubs and grains	Low. Due to the deficiency of on-site wetlands and active site use, nesting habitat does not occur on or adjacent to the Project site.

TABLE 1 (Continued)
SPECIAL-STATUS SPECIES

Scientific Name **Common Name**	**Listing Status USFWS/CDFW**	**General Habitat**	**Potential for Species Occurrence on or near the Project site**
FEDERAL AND/OR STATE-LISTED SPECIES (cont.)			
Birds (cont.)			
Golden eagle *Aquila chrysaetos*	--/-- BGEPA	Nests in canyons and large trees in open habitats	Absent. No suitable nesting trees occur near the site; nesting is not documented within 5-miles of the site.
Burrowing owl *Athene cunicularia*	--/CSC	Nests and forages in low-growing grasslands with burrowing mammals	Absent (nesting). A thorough review of untilled areas found no burrow habitat capable of supporting this species on or within 250 feet of the Project site.
California horned lark *Eremophila alpestris actica*	--/CSC	Nests and forages in short-grass prairie, mountain meadow, coastal plain, fallow fields, and alkali flats	**Present (foraging)**; low (breeding). Horned lark foraging was observed in harvested wheat fields; however, nesting is not expected due to ongoing, active cultivation across the entire site.
Loggerhead shrike *Lanius ludovicianus*	--/CSC	Scrub, open woodlands, and grasslands	Low. The site provides no brush or scrub features that would support nesting; nesting is unlikely.
Mammals			
Short-nosed kangaroo rat *Dipodomys nitratoides brevinasus*	--/CSC	Grassland and desert shrub communities with friable soils on flat or gently rolling terrain	Absent. The entire site is cultivated and regularly tilled. No burrows occur on-site that could support this species
Western mastiff bat *Eumops perotis californicus*	--/CSC	Breeds in rugged, rocky canyons and forages in a variety of habitats	Absent. Large rock crevices and trees that provide roosts are absent from the Project site.
Tulare grasshopper mouse *Onychomys torridus tularensi*	--/CSC	Arid shrubland communities in hot, arid grassland and shrubland associations	Absent. The entire site is cultivated and regularly tilled. No burrows occur on-site that could support this species
American badger *Taxidea taxus*	--/CSC	Dry, open grasslands	Low. The entire site is cultivated and regularly tilled and does not support badger burrows. Badgers may occur regionally as a transient species, though the site has no unmanaged areas that could support this species.

STATUS CODES:

Federal (U.S. Fish and Wildlife Service):
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government

State (California Department of Fish and Wildlife):
SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SC = California candidate for listing as endangered
CSC = California species of special concern

TABLE 2
HABITAT TYPES ON THE PROJECT SITE

Habitat Type	Approximate Area
Agricultural	
Tomatoes	918 acres
Wheat	660 acres
Tilled for planting	319 acres
Barren	3.8 acres
Aquatic (3 features at Lassen Ave)	1.20 acres
Managed Pond (NWI wetland)	0.35 acres
Total	1,902.55 acres

Most of the land located surrounding the Project site is subject to intensive agricultural land uses similar to the site itself. Aside from the Gates Solar Facility, located to the north of the site, adjacent lands are either tilled or in agricultural productions. These areas are mainly planted in annual crops; however, some adjacent areas are also planted as orchards or vineyard (Figure 2). The Gates Solar Facility contains both developed areas (solar facilities) and bare ground. No vegetation was noted at the Gates Solar Facility (see Photo points 1a, 8a, and 8b).

The three small shade trees identified on the Project site included one willow [*Salix* sp.] and two ornamental trees (see Photo point 9c). These trees may support nesting songbirds. The small size of these trees and their use for midday shade by workers makes them unsuitable for use by nesting raptors.

3.2 Special-Status Plants and Wildlife

3.2.1 Special-Status Plants

No special-status plants are documented in the vicinity of the Project site (CDFW, 2016), and based on the high level of site disturbance, none are expected on the Project site (Figure 3). The two rare plants that were identified locally (see Table 1) occur in association with a variety of habitats, including non-native grassland. Such habitat does not occur on-site and there is no potential for the presence of rare plant species on the Project site.

3.2.2 Special-Status Wildlife

Habitat for special-status wildlife species is generally absent from the Project site and survey area and no special-status wildlife would be impacted by the Project. Designated critical habitat for federally listed species does not occur within the survey area (USFWS, 2016b). An assessment of the potential for individual species to occur on the Project site is provided below (see also Table 1).

Fish

Delta smelt. One special-status fish species was identified in the U.S. Fish and Wildlife Service official species list: delta smelt (*Hypomesus transpacificus*) (USFWS, 2016a). Due to the absence of on-site aquatic habitat and distance to the Sacramento River, no impacts would occur to this species.

Amphibians and Reptiles

California tiger salamander

The California tiger salamander (*Ambystoma californiense*) is principally an upland species that occurs in annual grasslands and in the grassy understory of valley-foothill hardwood habitats in Central and Northern California. They require underground refuges (usually ground squirrel or other small mammal burrows), where they spend the majority of their annual cycle. Between December and February, when seasonal ponds begin to fill, adult California tiger salamanders engage in mass migrations to aquatic sites during a few rainy nights and are explosive breeders (Barry and Shaffer, 1994).

During drought years when ponds do not form, adults may spend the entire year in upland environments, while juveniles may spend 4 to 5 years in their upland burrows before reaching sexual maturity and breeding for the first time (Petranka, 1998; Trenham et al., 2000). Adult tiger salamanders swiftly disperse after breeding and have been documented to migrate up to 129 meters (423 feet) the first night after leaving a breeding pond (Loredo et al., 1996). Adult California tiger salamanders readily aestivate[2] in grasslands near ponds and at great distances from breeding ponds. Adults are known to travel distances greater than 1 kilometer (0.62 mile) from breeding ponds and have been documented at distances of 2 kilometers (1.2 miles) or more (Orloff, 2007). Typical aestivation sites include the burrows of California ground squirrels and valley pocket gophers (*Thomomys bottae*).

This species was identified in the U.S. Fish and Wildlife Service official species list (USFWS, 2016b); however, no occurrences are reported within the study area (5 miles surrounding the Project site [Figure 3]). Potential breeding habitat is not present on or adjacent to the site, and upland habitat is considered absent due to active cultivation of areas on and adjacent to the Project site. No impacts are anticipated to this species.

California red-legged frog

The California red-legged frog (*Rana draytonii*) is largely an aquatic frog that occurs in ponds and slow-moving streams that provide permanent or semipermanent water. This species opportunistically migrates into upland habitats, due to normal dispersal behavior. This species may aestivate in upland environments when aquatic sites are unavailable or environmental conditions are inhospitable. If water is unavailable, they shelter from dehydration in a variety of refuges, including boulders, downed wood, moist leaf litter, and small mammal burrows.

[2] Aestivation is a state of dormancy similar to hibernation that occurs during summer and fall.

Historically, the California red-legged frog occurred along the coast from the vicinity of Elk in southern Mendocino County, and inland from Redding, Shasta County, southward to northwestern Baja California, Mexico (Jennings and Hayes, 1994). The majority of California red-legged frog records in the Project region occur in association with ponds that are either in the Sierran foothills or inner Coast Range.

This species was identified in the U.S. Fish and Wildlife Service official species list (USFWS, 2016b); however, no occurrences are reported within 5 miles of the Project site (Figure 3). Potential breeding habitat is not present on or adjacent to the site, and upland habitat is considered absent due to active cultivation of areas on and adjacent to the Project site. No impacts are anticipated to this species.

Western pond turtle

Western pond turtles (*Actinemys marmorata*) are commonly found in ponds, lakes, marshes, rivers, streams, and irrigation ditches with rocky or muddy substrates surrounded by aquatic vegetation. These watercourses usually are within woodlands, grasslands, and open forests, between sea level and 6,000-foot elevation. Turtles bask on logs or other objects when water temperatures are lower than air temperatures. Nests are located at upland sites, often up to 0.25-mile from an aquatic site (Jennings and Hayes, 1994; Stebbins, 2003; Zeiner et al., 1988–1990).

The western pond turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 1,430 m (4,690 ft). While the National Wetland Inventory identifies an agricultural pond on the Project site (Figure 4), this feature and the surrounding agricultural land do not provide the necessary habitat to support this species. In addition, the CNDDB identifies no occurrences of western pond turtle within 5 miles of the Project site (CDFG, 2016); therefore this species is not expected to occur in the Project site or study area and no impacts are expected to this species.

Giant garter snake

The giant garter snake (*Thamnophis gigas*) is a large, mostly aquatic snake that inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, rice fields, managed marsh areas, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in California's Central Valley. During the active season, giant garter snakes require adequate water in order to provide food and cover, and emergent, herbaceous wetland vegetation such as cattails and bulrushes for escape cover and foraging habitat. Giant garter snake requires grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during the snake's dormant season. This species is typically absent from larger rivers that lack such habitat and emergent vegetative cover, and from wetlands with sand, gravel, rock substrates, and from riparian woodlands.

The giant garter snake is active in the early spring through mid-fall (mid-March through October), breeds from March through April, bears live young from July to September, and is

dormant in the winter (Zeiner et al., 1988–1990). The giant garter snake feeds primarily on small fish and amphibians. Historically, the range of this snake was the San Joaquin Valley from the vicinity of Sacramento and Antioch southward to Buena Vista and the Tulare Lake Basin. The current distribution extends from near Chico in Butte County, to the vicinity of Burrel in Fresno County (CDFG, 2016).

Standing water was present in four aquatic features during the site survey; however, these small features are isolated from any other nearby aquatic habitat and lack aquatic vegetation that is necessary for the snake. No associated upland patches of grassland or associated riparian habitat are available for this species on or near the Project site. The CNDDB does not identify any occurrences of giant garter snake within 5 miles of the Project site (Figure 3) (CDFW, 2016). Due to the lack of suitable habitat on the Project site and the great distance to known garter snake populations, this species is considered absent from the Project site and no impacts are anticipated.

Blunt-nosed leopard lizard

The blunt-nosed leopard lizard (*Gambelia sila*) occurs in the San Joaquin Valley at elevations from the Central Valley floor up to 2,600 feet in the surrounding foothills (Germano and Williams, 1992; Stebbins, 2003; USFWS, 1985). This species is known from alkali sink scrub, saltbush scrub, *Ephedra* scrub, and sparse grasslands, often in areas with alkaline or saline soils (Stebbins, 2003), though washes and barren areas can also be important in areas with marginal habitat.

Blunt-nosed leopard lizards inhabit small mammal burrows of species such as California ground squirrels and kangaroo rats (*Dipodomys* spp.). However, in areas of low mammal burrow density they can construct their own shallow burrows (USFWS, 1998). Several recent blunt-nosed leopard lizard occurrences are reported within 5 miles of the Project site; all west of I-5 and greater than 3.0 miles west of the site (Figure 3). On account of the intensive site management and lack of suitable habitat on and adjacent to the Project site, this species is considered absent and no impacts are anticipated.

Raptors and Nesting Birds

Special consideration was given during the biological reconnaissance survey to the potential presence of nesting and foraging habitat for raptors, including burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), golden eagle (*Aquila chrysaetos*), and tricolored blackbird (*Agelaius tricolor*) within the survey area. For burrowing owl, a thorough inspection was performed of all cleared areas, road shoulders, and areas of low-growing grass to identify potential nest burrows and host species. These species are discussed individually below.

Western burrowing owl

The western burrowing owl (*Athene cunicularia*) is a relatively small, semi-colonial owl that resides in dry, open grasslands and desert areas. They occupy burrows for both breeding and roosting. They use burrows excavated by ground squirrels and other small mammals and will use

human-made burrows and cavities. Where the number and availability of natural burrows is limited, owls may occupy human-made burrows such as drainage culverts, cavities under piles of rubble, discarded pipe, and other tunnel-like structures (Zeiner et al., 1988–1990). Burrowing owls hunt from perches and are opportunistic feeders. They consume arthropods, small mammals (e.g., meadow voles), birds, amphibians, and reptiles. Insects are often taken during the day, while small mammals are taken at night (Zeiner et al., 1988–1990).

The survey did not identify any burrowing owls on the site and did not detect the presence of any nest host species. California ground squirrels (*Otospermophilus beecheyi*) are absent from the Project site. No surrogate (i.e., artificial) burrows such as open pipes, culverts, or discarded materials were observed on the site that could support owl nesting. Due to the absence of suitable nest burrows on the Project site and within the survey area, the burrowing owl is not expected to nest on the site and would therefore not be impacted by proposed activities.

Swainson's hawk

The Swainson's hawk (*Buteo swainsoni*) is a medium-sized raptor with white leading edges of wings, a dark bib, and lightly banded tail. This species has various color morphs that can make it difficult to identify. It breeds in stands with few trees in juniper-sage flats, riparian areas, or oak savannah adjacent to suitable foraging habitat such as grasslands, alfalfa or grainfields with rodent populations. Threats to Swainson's hawk include development, resulting in the loss of foraging and nesting habitat. Swainson's hawk is listed as threatened by the state of California and is not federally listed. Grassland and cropland within the Project area provide suitable foraging habitat for this species; however, the lack of small mammals on the site due to intensive tilling cultivation limit the amount and quality of available forage on the site. There are no mature trees on the site that would provide suitable nest sites. No Swainson's hawks were observed during the site survey; however, the CNDDB identifies many occurrences within 5 miles of the Project site (Figure 3) (CDFW, 2016). Recent nesting occurrences are noted 3.0 miles east of the Project site near the California Aqueduct (Occ. No. 1431; July 2011) and 3.6 miles north of the site (Occ. No. 2508; July 2008). This species is present in the regional area surrounding the Project site, and could occasionally use the site for very limited foraging but the as the quality of available forage is very low this use would be expected to be extremely intermittent. Due to the absence of nest trees on the site, Swainson's hawk would not use the site for nesting and therefore no impacts are anticipated to this species.

Merlin

Merlin (*Falco columbarius*) inhabit fairly open country, such as willow or birch scrub, shrubland, but also taiga forest, parks, grassland such as steppe and prairies, or moorland. They are not especially habitat-specific and can be found from sea level to the treeline. In general, they prefer a mix of low and medium-height vegetation with some trees, and avoid dense forests as well as treeless arid regions. During migration however, they will utilize almost any habitat. A 2005 observation is reported from the California Aqueduct, 3 miles east of the Project site. No potential nesting habitat such as riparian habitat occurs on-site that would support this species. Due to the absence of nest trees on the site, no impacts are anticipated to this species.

Golden eagle

Golden eagles (*Aquila chrysaetos*) nest in open areas on cliffs and in large trees, often constructing multiple nests in one breeding territory (Zeiner et al., 1988–1990). They prefer open habitats such as rolling grasslands, deserts, savannahs, and early successional forest and shrub habitats, with cliffs or large trees for nesting and cover (Zeiner et al., 1988–1990). No golden eagle breeding sites are documented within 5 miles of the Project site (CDFW, 2016) and nesting habitat for this species does not occur on-site. The golden eagle is not expected on the Project site and no impacts are anticipated to this species.

Tricolored blackbird (nesting colony)

Tricolored blackbirds (*Agelaius tricolor*) are a colonial species that nest in dense vegetation in and around freshwater wetlands. When nesting, tricolored blackbirds generally require freshwater wetland areas large enough to support colonies of 50 pairs or more. They prefer freshwater emergent wetlands with tall, dense cattails or tules for nesting, but will also nest in thickets of willow, blackberry, wild rose, or tall herbs. During the nonbreeding season, flocks are highly mobile and forage in grasslands, croplands, and wetlands (Zeiner et al., 1988–1990).

While tricolored blackbirds are locally common in portions of the Central Valley and coastal areas south of Sonoma County, no records are reported within 5 miles of the Project site (CDFW, 2016). During biological reconnaissance surveys, no suitable tricolored blackbird nesting sites were identified on or adjacent to the Project site. Thus, this species is not expected to breed on the site and would not be impacted by the Project.

California horned lark

California horned larks (*Eremophila alpestris*) are brown songbirds that form large flocks for foraging and roosting. They build grass-lined nests directly on the ground, in dry, open habitats with sparse vegetation. Range-wide, California horned larks nest in level or gently sloping shortgrass prairie, montane meadows, barren fields, opens coastal plains, fallow grain fields, row crops, and alkali flats. No nesting occurrences are not reported within 5 miles of the Project site (CDFW, 2016) (note that nesting occurrences are generally underreported for this relatively widespread species).

Several horned larks were observed foraging in recently harvested wheat fields in the southeastern portion of the Project site; however, due to ongoing active cultivation of these areas this species is not expected to nest on the Project site.

Loggerhead shrike

Loggerhead shrikes (*Lanius ludovicianus*) are a semipermanent resident species that occurs in abundance in the Central Valley and Central Coast where shrub habitats and open woodlands are available. Shrikes generally forage on the fringes of open habitats where suitable hunting perches are available. This species typically hunts from dead trees, tall shrubs, utility wires and fences, impaling their prey on sharp twigs, thorns, or barbed wire.

The breeding distribution of this species is not well characterized by the CNDDB, and no occurrences are reported within 5 miles of the Project site (CDFW, 2016). Loggerhead shrike populations are readily encountered when appropriate nesting habitat is available. The Project site supports no shrubs and only three trees that could potentially provide nesting habitat. Also, with the exception of the Gates Solar facility that occurs north of the site, there are no fences and few available perches on the site. Due to the absence of these habitat elements, this species is not expected on the site and no impacts are anticipated to this species.

Other nesting birds

Potential nesting habitat for several types of birds (ground nesters and grass nesters) is generally limited on the Project site due to active cultivation and the absence of vegetation on the site. The few common bird species observed or heard during the survey include European starling (*Sturnus vulgaris*), American crow (*Corvus brachyrhynchos*), snowy egret (*Egretta thula*), mourning dove (*Zenaida macroura*), song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), and rock dove (*Columba livia*). Foraging habitat is present on-site for these species. The reconnaissance survey also included a visual inspection of the Project site to identify potential bird nesting habitat on-site and within 500 feet. Several large eucalyptus trees were noted on lands east of Lassen Avenue that could support nesting raptors. No active bird nests or nesting activity was noted in the survey area. While no impacts are expected to nesting raptors or other nesting birds, for compliance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 and 3503.5, a routine nesting bird survey should be performed on the Project site and within 500 feet in advance of any proposed disturbance and/or construction activities to ensure that no active nests occur on or adjacent to the Project site at the time of construction.

Mammals

San Joaquin kit fox

The San Joaquin kit fox (*Vulpes macrotis mutica*) is a small fox with large, conspicuous ears, relatively long legs, and a slender build. Historically, this kit fox was widely distributed throughout grassland, scrubland, and wetland communities in the San Joaquin Valley and adjacent low foothills, but agricultural, urban, and industrial development in the Valley, including oil and gas development, has led to extensive and continuing loss of native habitat, the primary threat to kit foxes.

Several kit fox occurrences are reported within 5 miles of the Project site, with five occurrences reported on the California Aqueduct in the early 1980s approximately 2.5 to 3.2 miles east of the site (Figure 3) (CDFW, 2016).

Agricultural lands on the Project site are not considered to provide suitable habitat for San Joaquin kit fox due to regular and continual site cultivation, the lack of small mammal burrows throughout the site, and the resulting lack of prey species on the site. As a result of these land uses, suitable denning habitat is absent from the Project site and areas within 0.25-mile, and

foraging habitat is considered insignificant to support this species. It is not known if the local San Joaquin kit fox population that was documented in the 1980s remains viable, but the USFWS and CDFW will presume that populations remain extant. Under this assumption, it is possible that individual San Joaquin kit foxes could use the Project site as an occasional migratory corridor, though they would not reside on the site. Given that there are no burrows or areas for kit foxes to take refuge on the site, no impacts are anticipated resident foxes. If the San Joaquin kit fox population is present regionally, it is possible that the Project may benefit this species through the elimination of active cultivation, which would likely allow the future use of the site by prey species and which would also provide undisturbed habitat where kit foxes could reside. Given the existing agricultural site uses, the San Joaquin kit fox is not expected on-site and no impacts are expected to this species.

American badger

In California, American badgers (*Taxidea taxus*) occupy a diversity of habitats. Grasslands, savannas, and mountain meadows near the timberline are preferred, though they can be found in deserts as well. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated ground.

In California, badgers range throughout the state, except for the humid coastal forests of northwestern California in Del Norte County and the northwestern portion of Humboldt County (Williams, 1986). An undated badger sighting is noted by the CNDDB approximately 2 miles north of the Project site. As noted for San Joaquin kit fox, the general absence of mammal burrows on the Project site indicates that badgers are not present on-site. No impacts are anticipated to this species.

Bats

The Project site and surrounding lands do not support any structures or other features that provide roosts for special-status bats.

3.3 Jurisdictional Waters and Sensitive Natural Communities

Four features were identified that are considered potential federal or state jurisdictional waters (Figure 4). The southernmost of these features is identified as a Freshwater Pond in the National Wetland Inventory (NWI). The 1971 U.S. Geological Survey 7.5 minute quadrangles for Huron and Guijarral Hills show no blue-line streams on the Project site. An agricultural ditch and reservoir were identified; however, these features are no longer on the site. The Freshwater Pond identified by the NWI as wetland was created subsequent to the 1971 USGS mapping of the Project site.

Other small, temporary agricultural ditches were noted in several portions of the site. These shallow, unvegetated irrigation ditches generally run along the edges of 0.25-square mile fields

and capture site runoff, which then percolates into the soil. However, most fields are not surrounded by water collection ditches. The terminal end of one such feature is shown in Photo point 10a. Because these features are excavated in dry land, do not support vegetation, and retain irrigation water on-site, they would not be considered jurisdictional by the resource agencies.

No sensitive natural communities occur on the Project site.

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CHAPTER 4
Recommendations

As noted previously, the Project site is located in an active agricultural area that is surrounded by agricultural or energy generation uses. With the exception of a few acres that support potentially jurisdictional wetlands on the eastern fringe of the site, the entire Project site appears subject to frequent disturbances related to tilling and farming. The denuded barren and tilled areas, and agricultural lands do not support resident special-status plant or wildlife species, or waters of the U.S. or waters of the state. No project-related impacts would affect special-status wildlife species that could potentially occur near the Project site. Additionally, no impacts to special-status plant species or sensitive natural communities were identified as a result of the Project.

In addition to the features included in Project design to avoid impacts to wildlife e.g. wildlife friendly fencing, caps on fence poles etc., it is recommended that the Project design avoid the four areas (approximately 1.55-acres) that may support potentially jurisdictional wetlands on the eastern side of the site. These low quality aquatic features do not support riparian habitat and presently function as agricultural and runoff collection.

To avoid inadvertent impacts to nesting birds, the following protection measure is recommended for inclusion either as a Project-proposed measure in the Project description or as a mitigation measure:

> **Measure BIO-1:** Ensure that active nests of raptors and other special-status nesting birds are not disturbed during construction.
>
> If active construction work (i.e., grading and site mobilization) is scheduled to take place outside of the avian nesting season (September 1 through January 31), no action would be required to protect nesting birds. If the start of construction activities occurs during the avian nesting season (February 1 through August 31), the following measures shall be implemented to avoid impacts on nesting raptors and other protected birds:
>
> - Within 30 days of construction, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction sites where access is available.
>
> - If active nests are found during preconstruction surveys, a no-disturbance buffer shall be created around active raptor nests and nests of other special-status birds during the breeding season, or until it is determined that all young have fledged. Typical buffers include 500 feet for raptors and 250 feet for other nesting birds (e.g., passerine birds). The size of these buffer zones and types of construction activities restricted in these areas

could be further modified during construction in coordination with CDFW and shall be based on the existing level of noise and human disturbance on the Project site.

- If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further action is required. Trees and shrubs within the construction footprint determined to be unoccupied by nesting birds, or that are outside the no-disturbance buffer for active nests, could be removed.

- If construction commences during the nonbreeding season and continues into the breeding season, most songbirds that choose to nest next to active construction sites are generally considered to acclimate to construction activities, though nest abandonment may occur in some instances.

CHAPTER 5
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Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

STANTEC CONSULTING SERVICES INC.

Elena Nuño
Senior Project Manager/Air Quality Scientist
559.355.0580
elena.nuno@stantec.com

APPENDIX A

Representative Photographs of the Study Area



SOURCE: EC&R Solar Development, LLC, 2016; ESA

Fifth Standard Solar Project Complex. 120251

Figure A-1

Location of Photo Points on the Project Site

Photo point 1a. View to the north



Photo point 1b. View to the east



Photo point 1c. View to the south



Photo point 1d. View to the west



Figure A-2. During the survey, areas north of Photo point 1 were barren or developed (PP1a). Areas east of Lassen Ave (PP1b) supported wheat and bare land. The northern agricultural blocks of the site were tilled and planted in tomatoes (PP1c; PP1d). All photos taken March 3, 2016.

Photo point 2a.View to the north



Photo point 2b. View to the east



Photo point 2c. View to the south



Photo point 2d. View to the west



Figure A-3. Areas north of Photo point 2 included tomatoes and aquatic habitat next to Lassen Ave (PP2a). Areas to the east were tilled or developed (PP2b). To the south, the Project site was planted in wheat (PP2c). PP2d looks toward the site, showing a lack of unfarmed lands.

Photo point 3a.View to the north



Photo point 3b. View to the east



Photo point 3c. View to the south



Photo point 3d. View to the west



Figure A-4. Areas north of Photo point 3 were planted in wheat, including beneath power poles (PP3a). Areas to the east were tilled or planted with orchards (PP3b). To the south, the site was tilled after wheat harvest (PP3c). PP3d, looking west, shows site cultivation right up to roadways.

Photo point 4a.View to the north



Photo point 4b. View to the east



Photo point 4c. View to the south



Photo point 4d. View to the west



Figure A-5. Areas north of Photo point 4 were tilled after wheat harvest (PP4a). Areas to the east were tilled or planted with annual crops (PP4b). Areas south of the site were tilled and barren (PP4c). Drainage ditches were routinely maintained and pooled irrigation runoff (PP4d).

Photo point 5a.View to the north



Photo point 5b. View to the eas



Photo point 5c. View to the south



Photo point 5d. View to the west



Figure A-6. Areas north of Photo point 5 included tomatoes and harvested wheat (PP5a). Areas to the east supported wheat and were recently tilled (PP5b). Areas to south supported young citrus trees (PP5c). Irrigation runoff from tomato plants is shown here, looking west (PP5d).

Photo point 6a.View to the north



Photo point 6b. View to the east



Photo point 6c. View to the south



Photo point 6d. View to the west



Figure A-7. Areas north and east of Photo point 6 supported young tomato plants (PP6a and PP6b). Areas to south tilled wheat and tomatoes (PP6c), while more tomatoes were visible to the west (PP6d). Few weeds were noted and none of these areas showed evidence of wildlife use.

Photo point 7a.View to the north



Photo point 7b. View to the east



Photo point 7c. View to the south



Photo point 7d. View to the west



Figure A-8. Areas to the north, east and south of Photo point 7 supported wheat with an isolated shade tree (PP7a, PP7b, PP7c). Irrigation ditches to the south (PP7d) and throughout the site convey only agricultural runoff, with no natural channels or creeks entering or exiting the site.

Photo point 8a.View to the north



Photo point 8b. View to the east



Photo point 8c. View to the south



Photo point 8d. View to the west



Figure A-9. Photo points 8a and 8b exhibited barren and developed land uses within the Gates Solar facility, with tomatoes both within and north of the site. PP8c shows tomatoes on the Project site, while PP8d shows offsite wheat production. These areas showed no evidence of wildlife use.

Photo point 9a.View to the north



Photo point 9b. View to the east



Photo point 9c. View to the south



Photo point 9d. View to the west



Figure A-10. Photo point 9 shows a central portion of the Project site where all arable land is either tilled or planted in crops. A willow (*Salix* sp.) shade tree that is not associated with any drainage is visible in PP9c. Roadside irrigation ditches are maintained and not considered jurisdictional.

Photo point 10a.View to the north



Photo point 10b. View to the east



Photo point 10c. View to the south



Photo point 10d. View to the west



Figure A-11. Areas north of Photo point 10 were tilled after wheat harvest (PP10a). Areas to the east were tilled or planted with annual crops (PP10b). Areas south of the site were tilled and barren (PP10c). Drainage ditches were routinely maintained (PP10d).

Photo point 11a.View to the north



Photo point 11b. View to the east



Photo point 11c. View to the south



Photo point 11d. View to the west



Figure A-12. Areas to the north, east, and west of Photo point 11 were planted in tomatoes (PP11a, 11b, and 11c). Off-site areas to the south were supported new orchard or were barren (PP11c; 11d)

Photo point 12a.View to the north



Photo point 12b. View to the east



Photo point 12c. View to the south



Photo point 12d. View to the west



Figure A-13. Off-site areas north of Photo point 12 were planted in wheat or tilled after wheat harvest (PP12a and 12b), as was a portion of the Project site (12c). Areas to the east were tilled as well (PP12d). Tomatoes were planted to the southwest (PP12c and 12d).

Photo point 13. Aside from roadways, the only unplowed habitat on the Project site was identifed beneath power poles. Fewer than ten 1/2-inch diameter small mammal holes were noted at this location.

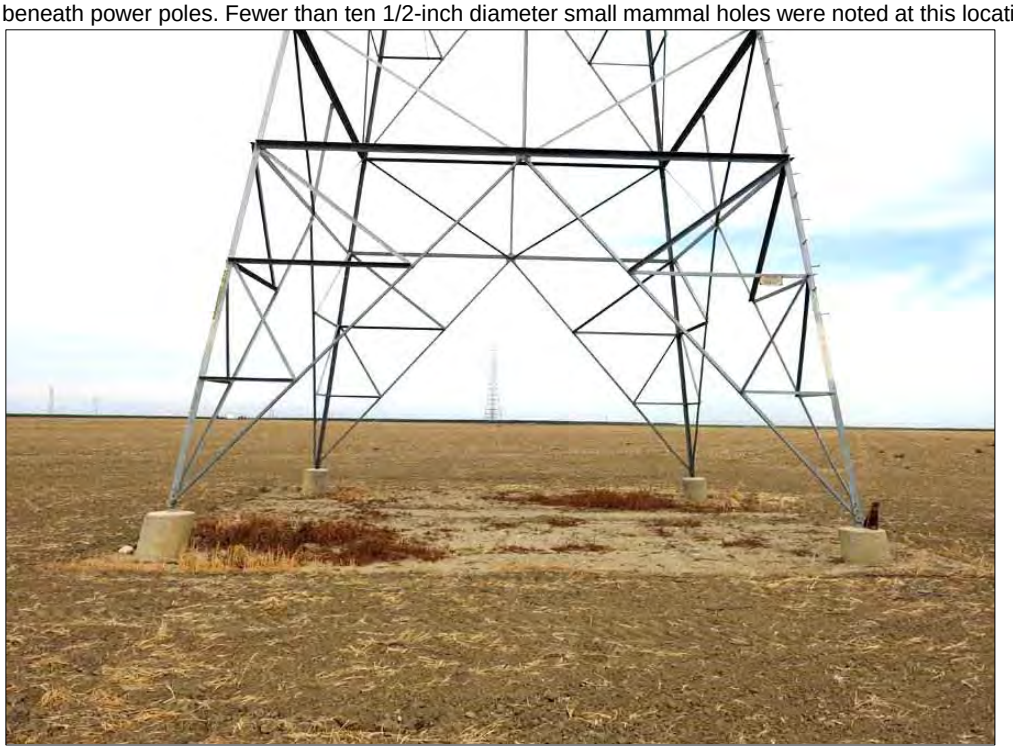


Photo point 14. The only identifed wetlands on the Project site occurred at the edge of Lassen Ave, as shown in Photo points 2b and 2c. The unvegetated ditch shown below is typical of irrigation runoff channels. Fewer than ten isoloated shade trees like the one below were identied on the site, and none supported raptor nests.



Figure A-14. Key observations on the Project site. Photo date: March 3, 2016.

Photo point 15a. View from the Project site to the Gates Substation.



Photo point 15b. Detail view from the Project site to the Gates Substation.



Figure A-15. Two views of the proposed gen-tie alignment right-of-way between the Project site and the Gates Substation. This alignment was recently tilled and supported no standing vegetation small mammal burrows at the time of the survey. Photo date: March 3, 2016.

APPENDIX B
Official USFWS Species List

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-1835
Event Code: 08ESMF00-2016-E-03987
Project Name: EC&R Solar Development, LLC
Fifth Standard Solar Project Complex

July 14, 2016

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)

of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2016-SLI-1835
Event Code: 08ESMF00-2016-E-03987

Project Type: POWER GENERATION

Project Name: EC&R Solar Development, LLC Fifth Standard Solar Project Complex
Project Description: The project would create a 2.5-square mile solar facility within agricultural lands.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-120.10322570800783 36.174188357098366, -120.10296821594238 36.1452219640102, -120.11996269226074 36.14508334310362, -120.12391090393066 36.141548427219334, -120.12485504150389 36.14238018646352, -120.1208209991455 36.145915064868454, -120.12090682983397 36.15215269699681, -120.13867378234862 36.152083392698565, -120.13867378234862 36.16656665970523, -120.12107849121094 36.166705242637356, -120.12107849121094 36.17404978739819, -120.10322570800783 36.174188357098366)))

Project Counties: Fresno, CA

Endangered Species Act Species List

There are a total of 11 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
California tiger Salamander *(Ambystoma californiense)* Population: U.S.A. (Central CA DPS)	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt *(Hypomesus transpacificus)* Population: Entire	Threatened	Final designated	
Flowering Plants			
California jewelflower *(Caulanthus californicus)*	Endangered		
San Joaquin wooly-threads	Endangered		

(Monolopia (=lembertia) congdonii)			
Mammals			
Giant kangaroo rat *(Dipodomys ingens)* Population: Entire	Endangered		
San Joaquin Kit fox *(Vulpes macrotis mutica)* Population: wherever found	Endangered		
Tipton kangaroo rat *(Dipodomys nitratoides nitratoides)* Population: Entire	Endangered		
Reptiles			
Blunt-Nosed Leopard lizard *(Gambelia silus)* Population: Entire	Endangered		
Giant Garter snake *(Thamnophis gigas)* Population: Entire	Threatened		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

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APPENDIX C

IPaC Trust Resources Report

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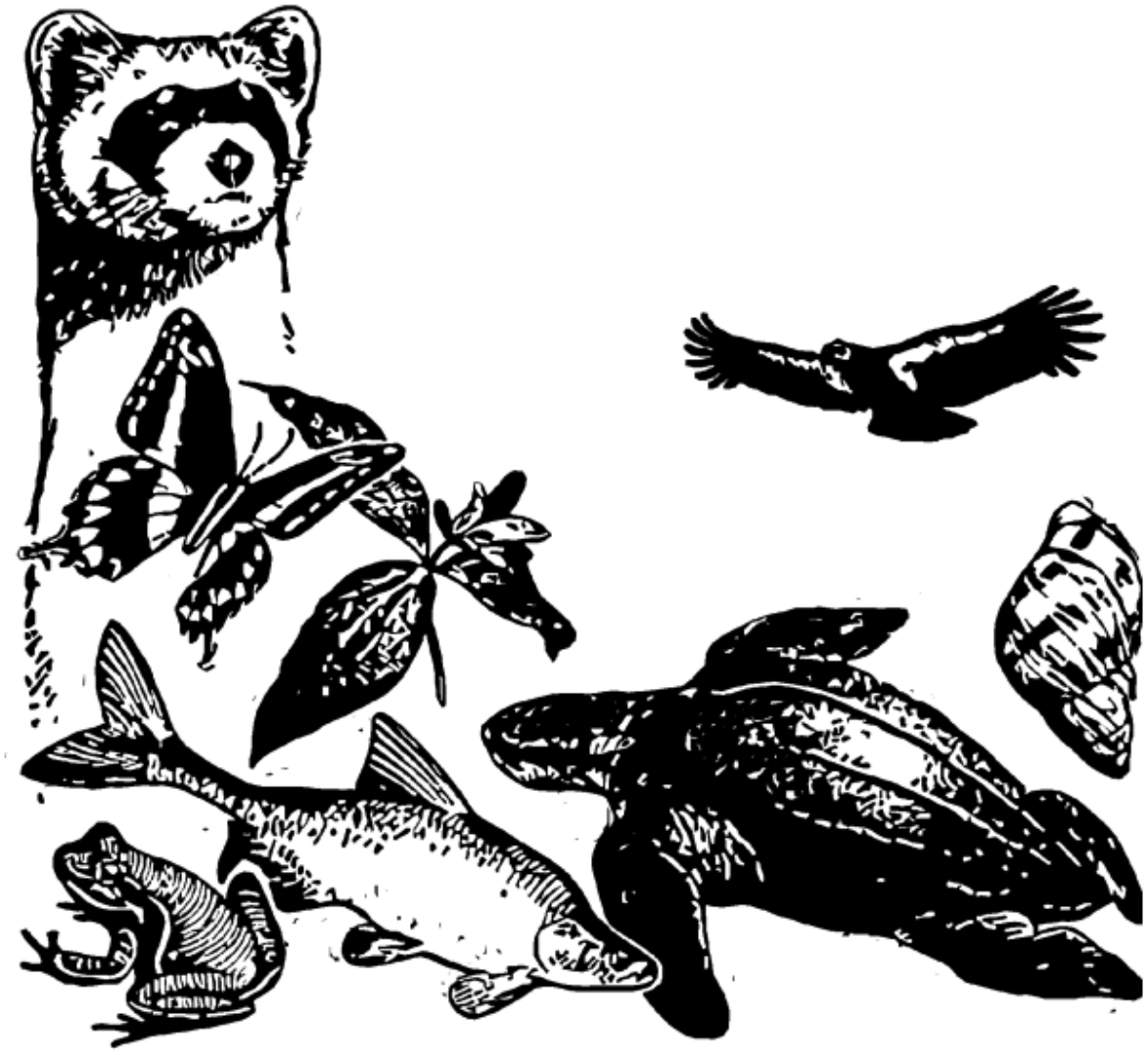
U.S. Fish & Wildlife Service

EC&R Solar Development, LLC Fifth Standard Solar Project Complex

IPaC Trust Resources Report

Generated July 14, 2016 01:37 PM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

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U.S. Fish & Wildlife Service

IPaC Trust Resources Report

NAME

EC&R Solar Development, LLC Fifth Standard Solar Project Complex

LOCATION

Fresno County, California

DESCRIPTION

The project would create a 2.5-square mile solar facility within agricultural lands.

IPAC LINK

https://ecos.fws.gov/ipac/project/XKXUT-FGE4F-EYHHI-EVN22-E2J2KQ



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Amphibians

California Red-legged Frog Rana draytonii — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=D02D

California Tiger Salamander Ambystoma californiense — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=D01T

Crustaceans

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=K03G

Fishes

Delta Smelt Hypomesus transpacificus — Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E070

Flowering Plants

California Jewelflower Caulanthus californicus — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q2Y8

San Joaquin Wooly-threads Monolopia (=Lembertia) congdonii — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q34W

Mammals

Giant Kangaroo Rat Dipodomys ingens — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A08P

San Joaquin Kit Fox Vulpes macrotis mutica — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A006

Tipton Kangaroo Rat Dipodomys nitratoides nitratoides — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A08S

Reptiles

Blunt-nosed Leopard Lizard Gambelia silus — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C001

Giant Garter Snake Thamnophis gigas — Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C057

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

---

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
  http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds
  http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data
  http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The following species of migratory birds could potentially be affected by activities in this location:

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Burrowing Owl Athene cunicularia — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC

Fox Sparrow Passerella iliaca — Bird of conservation concern
Season: Wintering

Le Conte's Thrasher toxostoma lecontei — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0GE

Lewis's Woodpecker Melanerpes lewis — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ

Loggerhead Shrike Lanius ludovicianus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY

Long-billed Curlew Numenius americanus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S

Marbled Godwit Limosa fedoa — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JL

Mountain Plover Charadrius montanus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B078

Nuttall's Woodpecker Picoides nuttallii — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HT

Peregrine Falcon Falco peregrinus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Short-eared Owl Asio flammeus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Swainson's Hawk Buteo swainsoni — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B070

Tricolored Blackbird Agelaius tricolor — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06P

Western Grebe aechmophorus occidentalis — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EA

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Freshwater Pond

PUBFx

Riverine

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website: http://107.20.228.18/decoders/wetlands.aspx

APPENDIX E
CULTURAL RESOURCES SURVEY REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

APPENDIX E

EC&R Solar Development, LLC
Fifth Standard Solar Project Complex
Fresno County, California
Cultural Resources Survey Report

STATEMENT OF CONFIDENTIALITY

This report identifies the locations of cultural resources in the vicinity of the Fifth Standard Solar Project Site in Fresno County, California. Disclosure of this information to the public may be in violation of both federal and State laws. Federal regulations applicable to the project include, but may not be limited to, Section 304 of the National Historic Preservation Act (54 United States Code [U.S.C.] 307103) and the Archeological Resources Protection Act (16 U.S.C. Section 470h). The applicable State regulations include, but may not be limited to, Government Code Section 6250 et seq. and Section 6254 et seq. Disclosure of site location information to individuals other than those meeting the U.S. Secretary of the Interior's professional standards or the California State Personnel Board criteria for Associate State Archeologist or State Historian II violates the California Office of Historic Preservation records access policy.

This report will be available upon request and presentation of appropriate credentials.

APPENDIX F
PALEONTOLOGICAL RESOURCES SURVEY REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

APPENDIX F

EC&R Solar Development, LLC
Fifth Standard Solar Project Complex
Fresno County, California
Paleontological Resources Survey Report

This report identifies the locations of paleontological resources in the vicinity of the Fifth Standard Solar Project Site in Fresno County, California. The report may be made available for review upon presentation of appropriate credentials.

APPENDIX G
PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Phase I Environmental Site Assessment

Fifth Standard
Unincorporated Fresno County, California

Prepared for:
E.ON Climate & Renewables North America
20 California Street, Suite 500
San Francisco, California 94111

Prepared by:
Stantec Consulting Services Inc.
3875 Atherton Road
Rocklin, California 95765

Project No: 185703851

December 15, 2017

Sign-off Sheet & Signatures of Environmental Professionals

This document entitled, Phase I Environmental Site Assessment (ESA), was prepared by Stantec Consulting Services Inc. (Stantec) for the account of E.ON Climate & Renewables North America. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

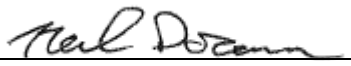
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional (EP) as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Prepared by: **Corinne Ackerman, PhD**
Associate Scientist



Reviewed by: **Danielle Manning**
Senior Project Manager



Approved by: **Neil Doran, P.G.**
Senior Geologist

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Acronyms & Abbreviations

AAI	All Appropriate Inquiries
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
bgs	Below ground surface
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulation
CHMIRS	California Hazardous Material Incident Report System
CO	Carbon Monoxide
CREC	Controlled Recognized Environmental Conditions
CUPA	Certified Unified Program Agencies
DOGGR	Department of Conservation Oil, Gas & Geothermal Resources
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EDR	Environmental Data Resources, Inc.
EMI	Emissions Inventory Data
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FINDS	Facility Index System
FCDPH	Fresno County Department of Public Health
FCDPW	Fresno County Department of Public Works
FCFPD	Fresno County Fire Protection District
ft msl	Feet above mean sea level
HIST CORTESE	Historical "Cortese" Hazardous Waste and Substances Sites List
HREC	Historical Recognized Environmental Conditions
LUST	Leaking Underground Storage Tank
NOX	Oxides of Nitrogen
PCBs	Polychlorinated Biphenyls
PM<10	Particulate matter less than ten micrometers in size
REC	Recognized Environmental Conditions
RGA-LUST	Recovered Government Archive – Leaking Underground Storage Tank
SOX	Oxides of Sulfur
SWRCB	State Water Resources Control Board

Acronyms & Abbreviations

US AIRS	United States Aerometric Information Retrieval System
USGS	United States Geological Survey
UST	Underground Storage Tank

1.0 SUMMARY

Stantec has completed a Phase I Environmental Site Assessment (ESA) of the agricultural property located south of the city of Huron on the west side of South Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of Interstate Highway 5, in unincorporated Fresno County, California (the "Property"), on behalf of E.ON Climate & Renewables North America ("E.ON" or "Client"). The work was performed in general accordance with the Master Services Agreement executed on August 11, 2016 between Stantec and E.ON and the Task Order dated August 7, 2017. Stantec understands that E.ON has requested the Phase I ESA as part of its pre-acquisition due diligence. E.ON (the "User") has been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of American Society for Testing and Materials (ASTM) International Practice E2247-16, except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM practice are described in Section 2.3.

The Property is composed of twelve parcels of land comprising a total of approximately 1,588.4 acres of fallow farmland. The Property consists of Assessor's Parcel Numbers (APNs) 075-060-15S (~160 acres), 075-060-52S-9 (~160 acres), 075-070-01S (~633.96 acres), 075-070-32S and 075-070-34S (~297.48 acres, total), 075-130-10S-1 (~1.25 acres), 075-130-12S-3 (~2.5 acres), 075-130-54S (~78.48 acres), 075-130-59S (~78.48 acres), 075-130-60S (~156.25 acres), 075-070-33 and 075-070-35 (~20.02 acres, total), which are contiguous parcels located on the west side of South Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of Interstate Highway 5. The surrounding area is primarily undeveloped and agricultural. The Property is owned by G3 Farming Trust (075-060-15S, 075-070-01S), Woolf Properties (075-060-52S-9), and Woolf Family Trust No. 1 (075-070-32S, 075-070-34S, 075-130-10S-1, 075-130-12S-3, 075-130-54S, 075-130-59S, 075-130-60S, 075-70-33, 075-070-35). A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property and the vicinity is provided as Figure 2. Photographs taken during the property reconnaissance visit are provided in Appendix A.

Stantec has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E2247-16 of the agricultural property located south of the city of Huron on the west side of South Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of Interstate Highway 5, in unincorporated Fresno County, California, the Property. Any exceptions to, or deletions from, this practice are described in Section 2.3 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property, except for the following:

- Seven agricultural irrigation pumps with small turbine oil aboveground storage tanks (ASTs) were identified throughout and/or immediately adjacent to the Property; six of these exhibited evidence of leakage (soil staining). Additionally, two trailer-mounted diesel-powered agricultural irrigation pumps were identified on the Property that also exhibited evidence of leakage (staining of the trailer and underlying soil). Based on the visual evidence of leakage from these ASTs, and the trailer, these are collectively considered to be a REC to the Property.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.

2.0 INTRODUCTION

The objective of this Phase I ESA was to perform appropriate inquiry into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property", Practice E2247-16. The purpose of this Phase I ESA was to identify, to the extent feasible, adverse environmental conditions including "RECs" on the Property.

The ASTM E2247-16 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs"), and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

(1) Due to any release to the environment;
(2) Under conditions indicative of a release to the environment; or
(3) Under conditions that pose a material threat of a future release to the environment.

ASTM defines a "HREC" as a REC that has occurred in connection with the Property, but has been addressed to the satisfaction of the applicable regulatory authority and meets unrestricted use criteria established by a regulatory authority, without subjecting the Property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional must determine whether the past release is a REC when the current Phase I ESA is conducted (for example, if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

De minimis conditions are not RECs. The term de minimis includes hazardous substances or petroleum products even under conditions in compliance with laws. As indicated, the term REC does not include de minimis conditions, which generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

The work was performed in general accordance with the Master Services Agreement executed on August 11, 2016 between Stantec and E.ON and the Task Order dated August 7, 2017. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of

work did not include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform any independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this ESA Report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E2247-16 notes that the availability of record information varies from source to source. The User or Environmental Professional is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. "Reasonably ascertainable" means:

(1) Information that is publicly available;
(2) Information that is obtainable from its source within reasonable time and cost constraints; and
(3) Information that is practicably reviewable.

2.1 Property Description

The Property consists of twelve parcels of land comprising a total of approximately 1,588.4 acres of fallow farmland. The Property consists of Assessor's Parcel Numbers (APNs) 075-060-15S (~160 acres), 075-060-52S-9 (~160 acres), 075-070-01S (~633.96 acres), 075-070-32S and 075-070-34S (~297.48 acres, total), 075-130-10S-1 (~1.25 acres), 075-130-12S-3 (~2.5 acres), 075-130-54S (~78.48 acres), 075-130-59S (~78.48 acres), 075-130-60S (~156.25 acres), 075-070-33 and 075-070-35 (~20.02 acres, total), which are contiguous parcels located on the west side of South Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of Interstate Highway 5. The surrounding area is primarily undeveloped and agricultural. The Property is shown on Figures 1 and 2. Photographs of the Property are provided in Appendix A.

2.2 Special Terms, Conditions, & Significant Assumptions

It is assumed that the purpose of this Phase I ESA is to qualify the User, in part, for landowner protection from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability. The possible contaminants of concern considered in this assessment include those hazardous compounds listed under CERCLA and petroleum products. Other than adherence to Client-specific scope of work requirements, there were no other special terms, conditions, or significant assumptions associated with the Phase I ESA.

2.3 Exceptions & Limiting Conditions

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided and given the schedule and budget constraints established by the Client. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential and actual liabilities and conditions associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the Property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the Client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Stantec with respect to it.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the Property's environmental condition.

This report relates solely to the specific project for which Stantec was retained and the stated purpose for which this report was prepared and shall not be used or relied upon by the Client identified herein for any variation or extension of this project, any other project or any other purpose.

This report has been prepared for the exclusive use of the Client identified herein and any use of or reliance on this report by any third party is prohibited, except as may be consented to in writing by Stantec or as required by law. The provision of any such consent is at Stantec's sole and unfettered discretion and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

The locations of any utilities, buildings and structures, and Property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures must be confirmed by the Client and Stantec assumes no liability resulting from damage to such utilities and structures.

The conclusions are based on the site conditions encountered by Stantec at the time the work. Accordingly, additional studies and actions may be required. As the purpose of this report is to identify selected site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment. The findings, observations, and conclusions expressed by Stantec in this report are not an opinion concerning the compliance of any past or present owner or operator of the site which is the subject of this report with any Federal, state, provincial or local law or regulation.

This report presents professional opinions and findings of a scientific and technical nature. It does not and shall not be construed to offer a legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of Federal, state, provincial or local governmental agencies. Issues raised by the report should be reviewed by Client legal counsel.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change.

2.4 Personnel Qualifications

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an EP. The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

3.0 USER-PROVIDED INFORMATION

ASTM E2247-16 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries (AAI)" into the Property. The ASTM standard requires that the Environmental Professional request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or de minimis conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire	Yes	Mr. Matt Stucky with E.ON completed the User Questionnaire. Mr. Stucky indicated that an easement for a pipeline carrying petroleum products was granted in the 1930s and is recorded against the Property title. Mr. Stucky stated that Chevron is the current grantee and they have conducted fieldwork recently to confirm the presence/absence of the pipeline. To Mr. Stucky's knowledge a pipeline is present, and it is expected to be removed in 2018. Mr. Stucky stated that based on his discussions with the landowner, the Property has been historically used for farming.
Environmental Liens or Activity Use Limitations	No	No Environmental Liens or Activity and Use Limitations were reported through EDR (not User provided).
Previous Environmental Permits or Reports Provided by User	Yes	E.ON provided a summary of the parcels descriptions that are included as the Property.
Purpose of the Phase I ESA	Yes	In support of environmental due diligence for Property acquisition.

The User provided information is included in Appendix C.

4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area, to evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the Property's first developed use. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 Physical Setting

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections.

Topography:	According to the Environmental Data Resources (EDR) Radius Map Report, and a review of the United States Geological Survey (USGS) Topographic Map TP Huron, and NW Guijarral Hills California Quadrangle, 2012, the Property slopes gently toward the east. The Property is situated at an elevation of approximately 410 feet above mean sea level (ft msl) on the western boundary to approximately 377 ft msl on the eastern boundary.
Soil/Bedrock Data:	According to the EDR Radius Map Report, soils in the vicinity of the Property are comprised primarily of fine grained materials (silty clays) to a depth of 42 inches below ground surface (bgs). Soils are characterized as well-drained with moderate infiltration rates.
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	Based on information available on the State Water Resources Control Board's (SWRCB) GeoTracker website for a nearby site in Huron, to the north (36270 Lassen Avenue; Geotracker ID: T0601900571), regional groundwater reportedly lies deeper than 300 feet bgs.
Note: Property-specific groundwater direction and depth can only be determined by conducting site-specific testing, which Stantec has not conducted.	

4.1.1 Property Topography and Surface Water Flow

The Property is located at an approximate elevation between 410 feet above mean ft msl on the western boundary to approximately 377 ft msl on the eastern boundary. Based on the topography and existing surface conditions, local surface water flow is anticipated to be to the north-northeast.

4.1.2 Regional and Property Geology

The Property is located in Fresno County. The area is located within the Great Valley Geomorphic Province, which is an alluvial plain approximately 50 miles wide and 400 miles long in the central part of California (California Geological Survey, 2002). The southern part of the province is the San Joaquin

Valley, which is drained by the San Joaquin River. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic period. Oil fields have been found in the southernmost San Joaquin Valley and along anticlinal uplifts on its southwestern margin.

4.1.3 Regional and Property Hydrogeology

The Property is located within the Westside Subbasin (5-22.09) of the San Joaquin Valley Groundwater Basin of the Tulare Lake Hydrologic Region (Department of Water Resources [DWR] 2006). This subbasin is bounded on the north by the Sacramento-San Joaquin Delta and Sacramento Valley, on the east by the Sierra Nevada Mountains, on the west by the Coast Ranges, and on the south by the San Emigdio and Tehachapi Mountains. Principal rivers and streams in the northern portion of the San Joaquin Valley include the San Joaquin River, and the Fresno Merced, Tuolumne and Stanislaus Rivers that drain into the Delta, and in the southern portion of the valley the Kings, Kaweah, Tule, and Kern Rivers that drain into the Tulare drainage basin, that includes the dry lake beds of the former Tulare, Buena Vista, and Kern Lakes.

The San Joaquin Valley represents the southern portion of the Great Central Valley of California, and is a structural trough up to 200 miles long and 70 miles wide. The San Joaquin Valley is comprised of up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains. An alluvial wedge which was formed from continental deposits shed from the surrounding mountains thickens from the valley margins toward the axis of the structural trough. The Westside Subbasin aquifer system is comprised of Tertiary and Quaternary continental deposits, and includes an unconfined to semi-confined upper aquifer consisting of alluvium and Tulare Formation, and a confined lower aquifer consisting of the lower portion of the Tulare Formation, and uppermost portion of the San Joaquin Formation. These zones are separated by the Corcoran Clay aquitard of the Tulare Formation, which lies at approximately 500 to 850 feet below ground surface (DWR, 2006; DWR, 1981). According to information available for a site in Huron, to the north (36270 Lassen Avenue; Geotracker ID: T0601900571), regional groundwater is reported to lie deeper than 300 feet bgs.

Stantec searched the Federal Emergency Management Agency (FEMA) flood plain map service and the majority of the portion of the Property that extends west of South Trinity Avenue is located in Zone X, which is defined as areas determined to be outside the 0.2% annual chance of flooding. Flood plain maps were not available for the rest of the Property.

4.2 Federal, State and Tribal Environmental Records

A regulatory agency database search report was obtained from EDR, a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix D.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. The inferred shallow groundwater flow direction is likely to be north-northeast. Observations

about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5.

4.2.1 Listings for the Property

The Property is not listed on any of the database listings researched by EDR. None of the listings on the orphan summary were identified as being within the Property boundaries.

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions on nearby sites to pose a REC, CREC, or HREC for the Property.

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property.

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Woolf Burnett Farms 17101 Tractor Avenue Huron, CA 93234	CUPA	0.702-miles NE	No
This site is listed in the Certified Unified Program Agency (CUPA) database as a hazardous materials handler with a farm exemption. No violations were found. This does not constitute a REC to the Property.			
Lassen Avenue at Tractor Avenue Huron, CA 93234	CHMIRS	Adjacent to the east	No
This site is listed in the California Hazardous Material Incident Report System (CHMIRS) for an accidental release that occurred on July 24, 1990. Details regarding the nature and quantity of the release were not found. However, no current or historical cases were found in the State Water Resources Control Board's (SWRCB) Geotracker database, or in the Department of Toxic Substances Control's (DTSC) Envirostor database for this location. Based on the absence of available details, and historical case listings, this site is not a REC to the Property.			
AT&T Mobility – Huron (9570) AT&T EH&S Compliance – USID 9570 New Cingular Wireless – Huron 27596 AT&T Wireless Services 40811 South Lassen Avenue Huron, CA 93234	FINDS EMI CUPA	0.39-miles SSE	No
This site is registered in the Environmental Protection Agency's (EPA) Facility Index System/Facility Registry System (FINDS) database, and in the Emissions Inventory (EMI) database with emissions of			

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
total organic hydrocarbon gases, reactive organic gases, carbon monoxide (CO), oxides of nitrogen (NOX) oxides of sulfur (SOX), particulate matter and particulate matter less than 10 micrometers in size (PM<10) in 2004-2006, 2009-2015. The site is also listed as a small hazardous materials handler in Fresno County's Certified Unified Program Agency (CUPA) database for hazardous materials, waste, permitting and enforcement. These listings do not constitute a REC to the Property.			
Woolf Enterprises 17891 Gale Avenue Huron, CA 93234	US AIRS RGA LUST HIST CORTESE EMI LUST CUPA	0.34-miles North	No
A closed leaking underground storage tank (LUST) case affecting soil is associated with this site (T0601900634). This case, involving a release of gasoline, was opened on November 12, 1997, site assessment was documented on January 14, 1998, and was closed as of October 2, 1998. According to the database listing, one UST was either removed or closed at this site, and the site was listed as a former contaminated site with no further action status (date not listed). The site is listed in the EMI database with emissions of total organic hydrocarbon gases, reactive organic gases, CO, NOX, SOX, particulate matter and PM<10 in 2010-2012. Due to the nature of the release, regulatory status of the case, and proximity to the Property, this site does not constitute a REC to the Property.			
Level 3 Communications LLC 18364 W. Jayne Avenue Coalinga, CA 93210	CUPA EMI	Adjacent to the southwest of the south Property boundary	No
This site is listed in the CUPA database as a small hazardous materials handler. No reports of leaks or spills were reported at this site. Due to the lack of reported leaks or spills, this site does not constitute a REC to the Property.			
PG&E Gates Substation & Maintenance HQ 18336 W. Jayne Avenue Coalinga, CA 93210	CUPA AST	Adjacent to the southwest of the south Property boundary	No
This site is listed in the CUPA database with an auto repair/maintenance model plan, as a small quantity hazardous waste generator, and as an above ground storage tank (AST) site with a capacity of 10,000 to 99,999-gallons. There are no leaks or spills at this site, therefore, this site does not constitute a REC to the Property.			

The listings in the Orphan list in the database search report provided in Appendix D to not constitute a potential REC for the Property.

4.3 Local/Regional Environmental Records

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 Fire Department

Agency Name & Resource Information	Findings
Fresno County Fire Protection District (FCFPD) 559-493-4300	Stantec requested records from the Fresno County Fire Protection District (FCFPD) for the Property. FCFPD did not have any records for the Property.

4.3.2 Health Department

Agency Name & Resource Information	Findings
Fresno County Department of Public Health (FCDPH) 559-600-3357	Stantec requested records from the Fresno County Department of Public Health (FCDPH) for the Property. Receipt of this request was received with notification that the FCDPH will contact Stantec to make an appointment to view files. Further correspondence has not yet been received. If records are found that change the conclusions of this report, Stantec will issue an addendum to this report.

4.3.3 Building Inspection Department

Agency Name & Resource Information	Findings
Fresno County Department of Public Works – Zoning and Building Permits (FCDPW) 559-600-4078	Stantec requested records from the Fresno County Department of Public Works (FCDPW) for the Property. FCDPH provided records that included permits for the agricultural irrigation pump on the Property, and several electrical permits. FCDPW also provided a letter from the County Planning Commission dated February 18, 1999 regarding Environmental Assessment Application No. 2889 from Los Gattos Tomato Products. Los Gattos Tomato Products was requesting expansion of an existing tomato processing facility, that would include an area for wastewater application on a 2,592.8-acre area located in the AE-20 Exclusive Agriculture District, on the north side of W. Tractor Avenue between S. Butte and S. Lassen Avenues APNs: 075-040-49s, 50s, 47u, 31, 28s, 32, 29s, 15s, and 075-050-43s, 42s, 40s, 2su, 14s, 13, and 075-130-60s, 12s, 10s, 59s,

	and 54s. The planning commission approved the Mitigated Negative Declaration prepared for the project and adopted the recommended findings of fact in the Staff Report and approved Classified Conditional Use Permit Application No 2889. Copies of these documents are provided in Appendix F.

4.3.4 Division of Oil, Gas & Geothermal Resources

Agency Name & Resource Information	Findings
Division of Oil, Gas & Geothermal Resources (DOGGR) www.conservation.ca.gov/dog	According to the State of California Department of Conservation Oil, Gas & Geothermal Resources (DOGGR) Online Mapping system (https://maps.conservation.ca.gov/doggr/wellfinder/#close) there are no wells on the Property. The closest well (Well #1-35) is located east of the Property, beyond S. Lassen Avenue and between W. Phelps Avenue and W. Jayne Avenue. According to the information provided the well is plugged, and the operator is listed as Great Basins Petroleum Co. During the Property reconnaissance, a visual survey was performed, and evidence of these wells was not found.

4.3.5 Review of SWRCB GeoTracker and DTSC EnviroStor Databases

Database Name	Findings
State Water Resources Control Board (SWRCB) GeoTracker Database Website: http://geotracker.waterboards.ca.gov	Stantec reviewed the SWRCB GeoTracker Database for the Property and listed sites within 0.25-miles of the Property. The Property was not identified on the GeoTracker database, and no sites were identified within 0.25-miles of the Property. The closest site was identified within approximately 0.5 miles of the Property: • Woolf Enterprises (T0601900634) located at 17891 Gale Avenue in Huron, California (http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0601900634). The site is listed as a closed LUST site where gasoline impacted soil. The case was opened on November 12, 1997, site assessment is dated January 14, 1998, and the case was closed on October 2, 1998. Additional details about the nature and extent of the release were not found. Due to the distance from the property and the regulatory status, this site does not constitute a REC to the Property.

California Department of Toxic Substances Control (DTSC) Envirostor Database Website: http://www.envirostor.dtsc.ca.gov/public/	Stantec reviewed the DTSC Envirostor Database for the Property and listed sites within 0.25-miles of the Property. No sites were identified.

4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

Stantec obtained an environmental lien search report for the Property from EDR. A copy of the environmental lien search report is provided in Appendix E. According to the lien report, there are no environmental liens or other activity use and land use restrictions recorded in the deed records for the Property. According to the deed records in the lien report, CA Dingle, Anne A. Delaware, Christopher R. Woolf Trustees (Deed 1, Deed 3, Deed 4, Deed 10), Christopher R. Woolf, Anne A. Delaware, and Daryl Barsoom Trustees (Deed 2), Christopher R. Woolf and Anne A. Delaware Trustees (Deed 5, Deed 6), Stuart P. and Christopher R., and Michael T. Woolf Trustees (Deed 7, Deed 9), Woolf Properties (Deed 8) are the current Property owners.

User provided Property descriptions were also reviewed by Stantec as part of this assessment.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. Copies of the aerial photographs are provided in Appendix F. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Scale	Observations, Property and Adjoining Properties
1937	1" = 1,000'	The Property appears to be primarily vacant land. Two diagonal lines transect the Property, oriented from the southwest to the northeast, and from the northwest to southeast. Several structures that appear to be part of a residence are visible on the northern portion of the Property, immediately north of W. Tractor Avenue. Two adjoining circles that may be dry pond beds are visible immediately southwest of the residence, south of W. Tractor Avenue. Four cylindrical oil ASTs (confirmed by 1956 topographic map in Section 4.4.5, and indicated to be abandoned on this map) are visible on the southern portion of the Property, in between W. Phelps Avenue (to the north), and W. Jayne Avenue (to the south), and S. Trinity Avenue (to the west), and S. Lassen Avenue (to the east). Several structures, and grain silos (confirmed by 1956 topographic map in Section 4.4.5) are visible in the vicinity of the ASTs. The adjacent properties to the north, south, east, and west appear to be primarily vacant land.

Year	Scale	Observations, Property and Adjoining Properties
1950	1" = 1,000'	Portions of the Property appear to be sown. The residence north of W. Tractor Avenue, and the dry ponds that were visible in the 1937 photo are no longer visible. Immediately east of the Property, the southeast corner of S. Lassen Avenue and W. Tractor Avenue is developed with several structures, roads and landscaping. The 1956 topographic map indicates an oil tank in this vicinity. South of this developed lot are adjoining circles within a cropped field that appear similar to those that were visible near the residence in the 1937 photo. The diagonal lines visible on the Property in the 1937 photo are no longer visible. The four ASTs observed on the southern portion of the Property in the 1937 photo are still present. The barn-like structures visible on the southern portion of the Property in the 1937 photo are still visible, and additional cylindrical structures that appear to be silos are visible. The adjacent properties to the north, south, and west still appear to be primarily vacant land or agricultural.
1955	1" = 1,000'	Three of the four ASTs that were visible in the prior photos are still visible. A small square of land immediately west of the northwestern-most AST appears to be partially developed, although no structures are visible. The southwestern most AST has been removed. Several square formations connected by an unimproved road are visible immediately south of the Property. Towers supporting high voltage power lines transect the southern portion of the Property in an east-west orientation, immediately north of W. Phelps Avenue.
1960	1" = 1,000'	The Property and surrounding areas appear to be similar to the 1955 photo, but the remaining three ASTS that were present in the southern portion of the Property in the 1955 photo have been removed. The developed barn area in the southern portion of the Property is still visible, although the configuration and number of structures have changed since the 1955 photo. The square formations on the adjacent property to the south that were visible in the 1955 photo are no longer visible. A small portion of the adjacent property to the northeast appears to be developed, but poor image resolution limit visible detail.

Year	Scale	Observations, Property and Adjoining Properties
1967	1" = 1,000'	The development on the southern portion of the Property is still visible, and towers supporting high voltage power lines transect the southern portion of the Property in a northeast-southwest orientation. Additional towers and power lines are visible on the adjacent Property to the southwest, in a northwest-southeast orientation. The small developed area on the adjacent property to the northeast that was partially visible in the 1967 photo is more visible here, and contains several structures and landscaping. A small lot of partially developed land is visible approximately 0.5-miles south of W. Tractor Avenue, and 0.5-miles north of W. Phelps Avenue, and 1-mile west of S. Lassen Avenue. The developed southeastern corner of S. Lassen Avenue and Tractor Avenue appears to be similar to the 1960 photo. Surrounding areas to the north, west, and south are primarily vacant or agricultural land.
1973	1" = 1,000'	The Property, and adjacent properties to the north, east, and west appear to be similar to the previous photos, and are comprised primarily of agricultural land. The adjacent property to the southwest appears to be partially developed with part of an electrical sub-station, which is still present today.
1981	1" = 1,000'	The Property and adjacent properties appear to be similar to the 1973 image. A drainage basin is visible on the south side of Tractor Avenue, approximately 0.5-miles west of S. Lassen Avenue
1994	1" = 1,000'	The developed farm area with the barn-like structure and silos that was visible on the southern portion of the Property in the previous photos is no longer visible. The small developed lot on the adjacent property to the northeast is no longer visible. The drainage basin that appeared in the 1981 photo is no longer visible, and at least one structure has replaced it.
2005 2010	1" = 1,000'	The Property and adjacent areas appear to be similar to the 1994 photo. A small lot located approximately 0.5-miles south of Tractor Avenue, and 0.5-miles west of S. Lassen Avenue appears to be developed with at least one structure. The sub-station on the adjacent property to the southwest appears to be further developed.
2012	1" = 1,000'	A solar array is visible on the adjacent property to the north, immediately south of W. Gale Avenue. The Property and adjacent properties to the south, east and west appear to be similar to the 2010 photo.
2014	1" = 1,000'	Additional solar panels are visible on the adjacent property to the north. A solar array is visible on the adjacent property to the southwest, immediately west of the sub-station.

Source: The EDR Aerial Photo Decade Package

4.4.3 City Directories

Stantec requested a city directory report from EDR, however, due to the historical use of the Property for agriculture and lack of a situs address associated with the APNs on the Fresno County Assessor website, the report did not include addresses on or near the Property. The addresses included in the report are located primarily on Lassen Avenue in Huron. This is not considered to be a data gap as the historical use of the Property is documented through other historical records.

4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical land uses.

Stantec requested fire insurance maps from EDR; however, no coverage exists for the Property. The Sanborn® Map Search Report indicating "no coverage" is presented in Appendix F.

4.4.5 Historical Topographic Maps

Stantec reviewed the historical United States Geological Survey (USGS) 30-Minute Topographic Map of the TP, Coalinga, California Quadrangle (1912), 7.5-Minute Topographic Maps of the TP, Huron, and NW, Guijarral Hills, California Quadrangle (1933, 1937, 1956, 1971, 2012), and the 15-Minute Topographic Map of the TP, Polvadero Gap (1942, 1947) to help identify past Property usage and areas of potential environmental concern.

Copies of the historical maps are provided in Appendix F. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Properties
1912	1:125,000	The Property and adjacent areas are depicted as primarily vacant land, with one building depicted approximately 0.2-miles south of W. Tractor Avenue, and 0.15-miles west of S. Lassen Avenue. Two unimproved roads are depicted in a north-south orientation immediately east of the Property. A light duty road is depicted in the adjacent area northwest of the Property.

Year	Scale	Observations, Property and Adjoining Properties
1933 1937	1:31,680	The Property and adjacent areas are still depicted as primarily vacant land. The building shown on the 1912 map is no longer visible. A building is depicted immediately north of W. Tractor Avenue, approximately 0.2-miles west of S. Lassen Avenue with several unimproved roads leading to the location. The unimproved roads that were depicted on the 1912 map on the adjacent property to the east are no longer shown. One building is depicted on the adjacent property to the east. The light-duty road shown on the adjacent area to the northwest on the 1912 map is no longer shown. Several unimproved roads are depicted on the adjacent property to the northwest. S Lassen Avenue has been developed into a secondary highway.
1942 1947	1:62,500 1:50,000	Several buildings are depicted on the southern portion of the Property with some unimproved and light-duty roads. Several buildings are depicted on the adjacent property to the northeast, on the northeastern (one building) and southeastern (five buildings) corners of the intersection of S. Lassen Avenue and W. Gale Avenue. Four cylindrical ASTs are depicted on the southern portion of the Property.
1956	1:24,000	A labor camp is depicted across the adjacent property to the north with several buildings and a water well on the southern side of W. Gale Avenue. East of this location, O'Neill Ranch is indicated on the northeastern corner of the intersection of W. Gale Avenue and S. Lassen Avenue, with several structures, and two water wells. Approximately 0.3-miles east of this location, several structures, a cotton gin, and water tank are depicted immediately south of W. Gale Avenue. Several structures, a well, and an oil tank are depicted immediately south of W. Tractor Avenue, on the southeastern corner of the intersection of W. Tractor Avenue and S. Lassen Avenue. A landing strip is depicted in the vicinity of the northeastern corner of the same intersection. Sommerville Farms, including several buildings and grain silos is depicted on the southern portion of the Property, approximately 0.25-miles northwest of the intersection of W. Jayne Avenue and S. Lassen Avenue. Several roads connect this area to S. Lassen Avenue and W. Jayne Avenue. Three abandoned oil tanks are depicted in this area; two immediately northwest of the small developed area, and one northwest of the same area (the 1955 aerial image confirms that one of these tanks was removed in this time period). A reservoir and a well are depicted immediately west of this oil tank. Another cotton gin, water tank and well are depicted on the adjacent property to the southeast, on the northeast corner of the intersection of W. Jayne Avenue and S. Lassen Avenue. Gates substation and connecting high voltage electricity lines arranged in a northwest-southeast orientation, are depicted on the adjacent property to the southwest, on the north side of W. Jayne Avenue, west of S. Trinity Avenue.

Year	Scale	Observations, Property and Adjoining Properties
1971	1:24,000	The Property and surrounding areas appear to be similar to the 1956 map. The three remaining ASTs that were still present in the 1956 map are no longer present. The three empty pads where they were located are depicted on this map. Additional electrical lines oriented in the same northwest-southeast orientation are depicted connecting to Gates Substation, as well as an additional line oriented in a southwest-northeast arrangement, and transecting the southeastern portion of the Property.
2012	1:24,000	This map appears to be similar to the 1971 map. The labor camp located on the adjacent property to the north, and the cotton gins located on the on the adjacent properties to the north and south are not depicted on this map. No oil tanks are depicted on this map. Only one reservoir and one well are depicted northwest of Sommerville Farms. A narrow wash is depicted through the center of the Property.

Source: The EDR Historical Topographic Map Report

4.4.6 Other Historical Sources

No other historical sources were researched.

5.0 PROPERTY RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Mr. Mike Myers of Stantec on October 5, 2017. Photographs collected during the Property visit are included in Appendix A.

5.1 PROPERTY RECONNAISSANCE METHODOLOGY

The Property reconnaissance focused on observation of current conditions and observable indications of past uses and conditions that may indicate the presence of a REC. The Property reconnaissance was conducted both on foot and by vehicle and Stantec utilized the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.

Weather conditions during the visit to the Property were clear and sunny. There were no weather-related property access restrictions encountered during the reconnaissance visit.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property consists of twelve parcels of land comprising a total of approximately 1,588.4 acres of fallow farmland. The Property consists of Assessor's Parcel Numbers (APNs) 075-060-15S (~160 acres), 075-060-52S-9 (~160 acres), 075-070-01S (~633.96 acres), 075-070-32S and 075-070-34S (~297.48 acres, total), 075-130-10S-1 (~1.25 acres), 075-130-12S-3 (~2.5 acres), 075-130-54S (~78.48 acres), 075-130-59S (~78.48 acres), 075-130-60S (~156.25 acres), 075-070-33 and 075-070-35 (~20.02 acres, total), which are contiguous parcels located on the west side of S. Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of Interstate Highway 5. The surrounding area is primarily undeveloped and agricultural.
Property Operations:	The Property is comprised of a combination of cropped and fallow agricultural land.
Structures, Roads, Other Improvements:	The Property is accessed by S. Lassen Avenue. Large overhead electrical lines transect the southern portion of the Property. Several pole-mounted transformers were identified on the perimeter of the Property. Several diesel-powered agricultural irrigation pumps, a pad-mounted transformer and an electrical panel were identified on the southwestern portion of the Property (see Figure 2). A decommissioned agricultural well with removed steel casing was identified on the western perimeter of the Property, approximately 0.5-miles south of W. Tractor Avenue, and 1-mile west of S. Lassen

	Avenue. A weather station trailer, and additional electrical panel was identified approximately 0.5-miles northeast of this location.
Property Size (acres):	The Property is approximately 1,588.4 acres in size.
Observed Evidence of Past Property Use(s):	No evidence of prior development on the Property was observed during the reconnaissance.
Sewage Disposal Method (and age):	No evidence of sewage disposal was observed on the Property.
Potable Water Source:	The Property is cropped and fallow farmland. Infield water valves arranged in an east-west orientation were identified throughout the Property. Filtration systems were also identified throughout the Property.

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S.C. § 9601(14):	Seven agricultural irrigation pumps with small turbine oil ASTs were identified on, and immediately surrounding the Property. Two 55-gallon polypropylene drums containing organic peroxide, and one large polypropylene tank containing sulfuric acid were identified immediately outside the Property, on the northeastern border. Three polypropylene tanks containing root chemical were identified immediately across the southwestern Property boundary, with two additional polypropylene tanks containing sulfuric acid (one tank), and US-15 fertilizer (one tank; see Figure 2). Two polypropylene tanks containing corrosive liquid were identified on the Property, approximately 0.5-miles south of W. Tractor Avenue, and 0.5-miles west of S. Lassen Avenue. One 1,000-gallon diesel fuel tank was identified on the adjacent property located on the southeast corner of the intersection of W. Tractor Avenue and S. Lassen Avenue, immediately across the eastern Property boundary.
Drums (≥ 5 gallons):	Two 55-gallon polypropylene drums containing organic peroxide, one large polypropylene tank containing sulfuric acid, three polypropylene tanks containing root chemical, two polypropylene tanks containing sulfuric acid and US-15 fertilizer, and two polypropylene tanks containing corrosive liquid were identified on or

Observations	Description/Location
	immediately adjacent to the Property (see location descriptions above).
Strong, Pungent, or Noxious Odors:	None observed.
Pools of Liquid:	None observed.
Unidentified Substance Containers:	One large polypropylene tank located on the southwestern corner of the Property, approximately one-mile south of W. Tractor Avenue, and 1-mile east of S. Lassen Avenue. Two unlabeled polypropylene tanks were identified on the adjacent property to the southwest, immediately across the Property boundary, approximately 1-mile south of W. Tractor Avenue, and 1.5-miles west of S. Lassen Avenue.
PCB-Containing Equipment:	Pole-mounted, and pad-mounted transformers were observed throughout the Property.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	None observed.

5.4 INTERIOR OBSERVATIONS

No buildings were observed on the Property during the Property reconnaissance.

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	A large drainage basin was identified on the southern portion of the Property adjacent to S. Lassen Avenue, approximately 0.25-miles south of W. Phelps Avenue. Two drainage basins were identified on the southwest corner of the intersection of W. Tractor Avenue and S. Lassen Avenue.
Stained Soil or Pavement:	Oil staining on concrete and soil beneath agricultural irrigation pumps with turbine oil ASTs was identified in five different locations on the Property. Staining was observed on soil, or concrete beneath the pumps (and in one case, on the trailer where the pump is mounted) in the following locations (Figure 2): • APN 07507034S – along the western Property boundary

Observations	Description
	• APN 07507001S – in the center of the parcel, and along the northern parcel boundary • APN 07506015S – in the northeastern corner of the parcel.
Stressed Vegetation:	None observed.
Waste Streams and Waste Collection Areas:	None observed.
Solid Waste Disposal:	None observed.
Potential Areas of Fill Placement:	None observed.
Wastewater:	None observed.
Stormwater:	Drainage ditches were observed on the eastern perimeter of the Property. Stormwater is expected to percolate directly into the ground surface, or drain to drainage ditches.
Wells:	Water valves were identified throughout the Property (as described in Section 5.2). One abandoned well was identified approximately 0.5-miles south of W. Tractor Avenue, and 1-mile west of S. Lassen Avenue.
Septic Systems:	None observed.

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Observations	Description/Location
Existing USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), which would indicate the presence of underground storage tanks (USTs), was observed during the Property reconnaissance.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), reports, or other evidence of the former presence of USTs was discovered during this Phase I ESA.
Other Underground Structures:	None observed.

5.7 ABOVEGROUND STORAGE TANKS

Observations	Description/Location
Existing ASTs:	Seven ASTs associated with agricultural irrigation pumps were identified on, or immediately adjacent to (within several feet) the Property. One

	1,000-gallon diesel AST was identified on the adjacent property to the east at an industrial piping facility.
Former ASTs:	Four former ASTs were identified on the southern portion of the Property from review of historical aerial images and topographic maps. These four ASTs were visible on the 1937 and 1950 aerial photographs, and three of the original four ASTs were visible on the 1955 photograph (the southwestern-most tank was removed in this image). The four ASTs are also depicted on the 1942 and 1947 topographic maps, and three of them are depicted on the 1956 topographic map where they are labeled as abandoned oil tanks.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining properties:

North	Adjacent to the north of the Property contains a large solar array, and agricultural land.
South	Adjacent to the south of the Property is agricultural land. A power substation is located on the adjacent property to the southwest.
East	Adjacent to the east of the Property is an industrial piping operation, and agricultural land.
West	Adjacent to the west of the Property is agricultural land.

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties providing indications of past use and activities, if any, are described below.

North	None observed.
South	None observed.
East	None observed.
West	None observed.

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining properties:

North	None observed.
South	None observed.
East	None observed.
West	A backfilled drainage basin was identified on the adjacent property to the west, approximately 1.5-miles west of S. Lassen Avenue, and 0.5-miles south of W. Tractor Avenue.

5.9 OBSERVED PHYSICAL SETTING

Observations	Description/Location
Topography of the Property and Surrounding Area:	The ground surface at the Property and in the surrounding area are primarily flat with a gently downward gradient to the east.

6.0 INTERVIEWS

Stantec conducted a written interview with the following individual:

Name & Contact Information	Relationship to Property	Key Findings
Daniel Hartwig	California Valley Land Co. Procurement Manager	Mr. Hartwig completed an owner questionnaire on behalf of the Property owner, and stated that the Property is currently used for farming and has been for approximately 40 years. He was not aware of any chemicals that may have been previously used on the Property. Mr. Hartwig indicated that the owner has no knowledge of any spills, releases, or environmental cleanups of chemicals or hazardous substances that have taken place at the Property. The owner also has no knowledge of any pending, threatened or past litigation, administrative proceedings, or past regulatory notices regarding possible violations of environmental laws regarding any chemical or hazardous releases or spills associated with the Property.

7.0 EVALUATION

This section provides a summary overview of or Findings, Opinions, and Conclusions.

7.1 FINDINGS AND OPINIONS

Information gathered from interviews, reviews of existing data, and a Property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

Finding 1: The Property has been utilized for agricultural use. It is possible that various pesticides, herbicides, and fertilizers have been used at the Property.

Opinion 1: Evidence of the use of agricultural chemicals was observed at the Property, however, provided that the chemicals were applied according to manufacturer's instructions, this is considered a non-scope de minimis condition and not a REC or HREC.

Finding 2: The adjacent property to the east houses an industrial irrigation piping facility that contains a 1,000-gallon AST containing diesel.

Opinion 2: The AST appeared to be in good condition with no evidence of a release, or material threat of release; therefore, this is not considered to be a REC in the present state.

Finding 3 Seven agricultural irrigation pumps with small turbine oil ASTs were identified throughout and/or immediately adjacent to the Property, and six of these exhibited evidence of leakage (soil staining). Additionally, two trailer-mounted diesel-powered agricultural irrigation pumps were identified on the Property that also exhibited evidence of leakage (staining of the trailer and underlying soil).

Opinion 3 Based on the visual evidence of leakage from these ASTs, and the trailer, these are collectively considered to be a REC to the Property.

Finding 4 The topographic maps and aerial photographs indicate that large oil ASTs were present on the southern portion of the Property for at least 18 years prior to 1955. They are indicated on the maps as "abandoned"; however, no information was found to indicate their condition or whether they were abandoned while containing oil. No reports of leaks or spills from the ASTs were noted in agency database reviews. Additionally, no indication of a leak or spill was observed during the Property reconnaissance in the area of the former ASTs.

Opinion 4 Due to the lack of reported or observed evidence of a release from these former ASTs, these are not considered to be a REC to the Property at this time.

Finding 5: A large solar array is located on the adjacent property to the north, and a power substation is located on the adjacent property to the southwest.

Opinion 5: Due to the nature of operations at these locations, these sites are not considered to be RECs to the Property.

Finding 6: An environmental records search was performed and identified sites within their respective ASTM E 2247-16 search radii of the Property that may represent RECs, HRECs, or de minimis conditions.

Opinion 6: Based on one or more of the following reasons: distance from the Property, position of sites with respect to assumed groundwater flow direction, and regulatory status, none of these sites identified in the environmental records search report are expected to affect soil or groundwater quality at the Property.

7.2 DATA GAPS

The federal AAI rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a "data gap" as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Deletions or Exceptions from Scope of Work:	None.
Weather-Related Restrictions to Property Reconnaissance:	None.
Facility Access Restrictions to Property Reconnaissance:	None.
Other Property Reconnaissance Restrictions:	None.
Data Gaps from Environmental Records Review:	None.
Data Gaps from Historical Records Review:	Stantec was not able to obtain topographic maps, aerial photographs, or city directory information that document the Property history in five-year intervals. However, these failures do not constitute significant data gaps because other available records indicate that the nature of Property use has not changed over time.
Data Gaps from Interviews:	None.
Other Data Gaps:	None.

7.3 CONCLUSIONS

Stantec has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E2247-16 of the agricultural property located south of the city of Huron on the west side of S. Lassen Avenue, between Gale Avenue and West Jayne Avenue, east of

Interstate Highway 5, in unincorporated Fresno County, California, the Property. Any exceptions to, or deletions from, this practice are described in Section 2.3 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property, except for the following:

- Seven agricultural irrigation pumps with small turbine oil ASTs were identified throughout the Property, and immediately adjacent to the Property; six of these were exhibiting evidence of leakage (soil staining). Additionally, two trailer-mounted diesel-powered agricultural irrigation pumps were identified on the Property that also exhibited evidence of leakage (staining of the trailer and underlying soil). Based on the visual evidence of leakage from these ASTs, and the trailer, these are collectively considered to be a REC to the Property.

8.0 NON-SCOPE CONSIDERATIONS

The scope of work completed was limited solely to those items in the ASTM E2247-16 standard. No ASTM E2247-16 non-scope services were performed as part of this Phase I ESA.

9.0 REFERENCES

ASTM International, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process for Forestland or Rural Property, Designation: E2247-16.

California Department of Conservation, 2010, Fault Activity Map of California.

California Department of Water Resources (DWR), 2006, California's Groundwater Bulletin 118, Tulare Lake Hydrologic Region, San Joaquin Valley Groundwater Basin, Westside Subbasin, updated January 20.

DWR, San Joaquin District, 1981, Depth to the Top of Corcoran Clay. 1:253, 440 scale map.

California Geologic Survey (CGS). 2002. *Note 36 - California Geomorphic Provinces*.

Environmental Data Resources (EDR), 2017, Aerial Photographs, Sanborn® Map, Topographic Maps, EDR Radius Map™ Report, Environmental Lien and AUL Search, Fifth Standard Property, Huron, CA 93234, Inquiry Number: 5068323, October 4.

www.conservation.ca.gov/dog

http://geotracker.waterboards.ca.gov/)

http://www.envirostor.dtsc.ca.gov/public/

https://msc.fema.gov/portal

http://www.water.ca.gov/groundwater/bulletin118/gwbasin_maps_description.cfm

Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

STANTEC CONSULTING SERVICES INC.

Elena Nuño
Senior Project Manager/Air Quality Scientist
559.355.0580
elena.nuno@stantec.com

APPENDIX A
Photographs of the Property

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 1



Northeast corner of site looking south.

Photograph No. 2



Northeast corner of site looking west.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 3



Northwest corner of site looking east.

Photograph No. 4



Northwest corner of site looking south.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 5



Southeast corner of site looking west.

Photograph No. 6



Southeast corner of site looking north.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 7



Site 1: Adjacent property. See site notes.

Photograph No. 8



Example of small concrete vault containing a water valve. These are located across the site always within ag fields.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 9



Example of a water filtration system located across the site.

Photograph No. 10



Site 2: Adjacent property. See site notes.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 11



Site 5: Large white poly tank, filtration system, trailer mounted diesel ag pump (with staining) and Westlands Water Valve.

Photograph No. 12



Site 5: Soil staining on and below trailer.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 13



Site 6: Concrete pad, turbine oil AST, ag pump disassembled and inactive ag well. See site notes.

Photograph No. 14



Site 4: Concrete standpipe, Westlands Water Valve, pole mounted transformer and ag pump with soil staining at base of pump.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 15



Site 4: Soil staining around base of ag pump.

Photograph No. 16



Site 3: • Diesel ag pump on trailer with soil staining under trailer, ag pump with turbine oil AST and staining around of pump, pad mounted transformer, electrical panel, filtration system. See site notes.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 17



Site 3: Soil staining around base of ag pump.

Photograph No. 18



Site 3: Soil staining under trailer.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 19



Site 8: Filtration system, ag pump with turbine oil AST with soil staining around base of pump, pad mounted transformer, electrical panel, two square poly tanks containing corrosive liquid.

Photograph No. 20



Site 8: Concrete and soil staining around base of pump.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 21



Site 7: Weather station trailer.

Photograph No. 22



Site 7: Pipe laydown area and pole mounted transformer.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 23



Site 7: Ag pump and turbine oil AST. Soil staining present around all sides of pump base.

Photograph No. 24



Example of roadside water valves located throughout the site.

STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD

Client:	EON	**Job Number:**	185703851
Subject Name:	Fifth Standard	**Location:**	Huron Huron, California
Photographer:	Mike Myers	**Date:**	10/5/17

Photograph No. 25



Water pump located along Lassen Avenue. No staining on or below pump.

Photograph No. 26



Water pump associated with dual retention basin located along Lassen Avenue.
No staining on or below pump.

APPENDIX B
Stantec Resumes

Corinne Ackerman PhD

Associate Scientist

Corinne has seven years of experience in the environmental consulting field including experimental design, data interpretation, verification and analysis, preparation of scopes of work and cost estimates, and technical report writing, as well as direct client support and client recommendations for field implementation. She is experienced in a wide range of environmental remediation techniques including both in-situ chemical oxidation (persulfate, permanganate, ozone, Fenton's reagent, peroxide) and enhanced bioremediation (nutrient and oxygen addition, as well as commercially prepared electron donors/acceptors) and bioaugmentation (addition of commercially available bacterial cultures). Projects involve bench testing of in-situ chemical oxidation for the removal of petroleum hydrocarbons, volatile organic compounds, chlorinated compounds, and other chemicals of concern from site soil and groundwater, as well as bench testing of bioremediation for the removal of contaminants.

Corinne has a strong background in most areas of soil science and extensive experience with various molecular techniques.

EDUCATION

BS, Environmental and Resource Science (With minors in Geology and Soil Science), University of California, Davis, California, 1999

MS, Agronomy (Soil Microbiology), Purdue University, West Lafayette, Indiana, 2001

PhD, Agronomy (Soil Microbiology), Purdue University, West Lafayette, Indiana, 2007

MEMBERSHIPS

Member, Groundwater Resources Association of California

Member, Crop Science Society of America

Member, American Society of Agronomy

Member, Soil Science Society of America

AWARDS

2003 Purdue Research Foundation Grant for Ph.D.

2002 Induction into Gamma Sigma Delta Honor Society of Agriculture

PROJECT EXPERIENCE

Soil and Groundwater Remediation Systems

Confidential Client* (Environmental Scientist)

Compared ozone and activated persulfate for the destruction of petroleum and chlorinated volatile organic compounds in soil and groundwater. Column tests were run to evaluate ozone since the soil to be treated was in the unsaturated zone. Activated sodium persulfate tests used soil and groundwater and compared the efficacy of unactivated persulfate and alkaline activated persulfate.

Wastewater

Confidential Client*

Developed and implemented traditional microbiological capabilities for an existing treatability lab for the evaluation of a novel method for wastewater sterilization

Regulatory Advice and Consultation

Various Sites* (Environmental Scientist)

Consulted directly with clients to develop customized scopes of work that meet specific site and regulatory concerns as well as budgetary requirements. Interpreted, and verified resulting study data and prepared technical reports of findings for bench tests that assessed the ability of ozone, persulfate, permanganate, or Fenton's reagent to destroy various contaminants including TPH, BTEX, fuel oxygenates, and chlorinated compounds. Testing included evaluation of contaminant removal, measurement of ozone, persulfate, or permanganate demand of soil, hydrogen peroxide or Fenton's reagent longevity in soil and groundwater, assessment of the effect of treatment on secondary water quality parameters, and assessment of the ability of Cr(VI) formed by treatment to attenuate within the treatment zone (once oxidation ceased) and downgradient of the treatment zone.

** denotes projects completed with other firms*

Danielle Manning CSST, LRCIA

Project Manager

Danielle is a Project Manager in the Environmental Services (ES) practice area of Stantec and resides in the Rocklin, California office. Danielle has thirteen years of professional experience in the environmental field and is currently responsible for managing due diligence and hazardous materials projects throughout northern California for a variety of commercial, public, and private sector clients. Danielle is directly responsible for a highly successful, and consistently profitable, team of Stantec employees including geologists, scientists, and other support staff. Danielle's environmental consulting experience includes performing asbestos, lead, and microbial consulting services, which includes sampling, oversight of asbestos abatement contractors during asbestos abatement, and report preparation. Her asbestos consulting experience also entails confirming that the hazardous and non-hazardous asbestos waste is properly removed and disposed of from facilities under all local, state, and federal regulations for abatement and waste disposal. For the past thirteen years, Danielle has also been conducting fieldwork associated with due diligence services throughout California and Nevada to include Phase I and II Environmental Site Assessments in accordance with the American Society of Testing and Materials (ASTM) standards, Transaction Screen Assessments, and Property Condition Assessments in accordance with ASTM standards.

EDUCATION

BA, Environmental Studies, California State University, Sacramento, California, 2001

CERTIFICATIONS & TRAINING

Asbestos Contractor/Supervisor (AHERA) Initial, Vacaville, California, 2002

Asbestos Building Inspector (AHERA) Initial, Rancho Cordova, California, 2002

Lead-Related Construction Inspector/Assessor Initial, Vacaville, California, 2004

Asbestos Project Designer (AHERA), Vacaville, California, 2011

8-Hour Hazardous Waste Operations Supervisor Certificate, Occupational Safety & Health Administration, Rancho Cordova, California, 2008

40-Hour Hazardous Waste Operations Certificate, Occupational Safety & Health Administration, Folsom, California, 2008

First Aid, AED, and CPR Training, Rancho Cordova, California, 2014

8-Hour OSHA Hazardous Waste Operations Refresher Training, Occupational Safety & Health Administration, Rancho Cordova, California, 2015

American Petroleum Institute Safety Key Training, Rancho Cordova, California, 2015

REGISTRATIONS

Certified Site Surveillance Technician, #03-3287, California Department of Occupational Safety and Health

Lead Related Construction Inspector/Risk Assessor #14530, California Department of Public Health

PROJECT EXPERIENCE

Asbestos, Lead Based Paint, and Hazardous Material (mercury, PCB) Assessments

Veteran's Administration of Puget Sound, Seattle, Washington (Project Scientist)

Project Scientist responsible for hazardous building material assessments, specifically asbestos and lead-based paint. These services were required as part of the pre-design tasks for this project. Over 300 samples were collected over the span of four days culminating in a final hazardous building materials report to be incorporated into the facility design as well as demolition activities once the construction phase of the project commences.

Danielle Manning CSST, LRCIA

Project Manager

Asbestos, Lead-Based Paint, and Hazardous Materials Survey, Cupertino, California (Onsite Project Manager)

Danielle was the onsite project manager for a large scale hazardous material identification scope of work which was part of a large scale, accelerated Phase II Environmental Site Assessment. She was responsible for the budgeting, field management and logistics, as well as field quality assurance. The scope of work involved sample collection for asbestos and lead-based paint in addition to the quantification of universal wastes (PCBs, mercury containing equipment, refrigerants, etc.) that would require special handling and disposal. The scope of the project included the interior and exterior of each of the 15 buildings located on the site. The total square footage of the hazardous material identification scope of work total more than 1.3 million square feet and included more than 1,600 asbestos and paint chip samples. Although the driver behind the hazardous material identification portion of the project was for due diligence, the requested level of effort was to complete the work to facilitate the demolition of each of the structures in accordance with federal and local agency requirements.

Assessments for Infrastructure Studies, Sacramento, California (Project Scientist)

As a project scientist, Danielle has performed asbestos, lead-based paint, and hazardous materials assessments, as well as sample collection as part of infrastructure studies performed at the Board of Equalization and State Garage buildings. Project tasks included a review or prior survey data and information related to hazardous materials for the buildings, sampling suspect asbestos-containing materials and suspect lead-based paint, and documenting the inventory and storage of hazardous materials and wastes. The observed conditions and sample results were provided in a report with recommendations for the proper handling and corrective actions for the observed conditions.

Asbestos Survey and Abatement Projects*, Various Locations (Staff Scientist)

Danielle performed numerous asbestos surveys for multiple projects while performing all tasks in accordance with the clients' in-house asbestos management program. She was responsible for interpretation of analytical sampling results, report preparation, and drafting sample location diagrams. She provided asbestos abatement project monitoring that included the collection of air samples during abatement, visual clearances, and clearance sampling.

Campbell Soup Factory Asbestos Assessments*, Sacramento, California (Project Manager/Lead Field Technician)

Danielle served as lead field technician for asbestos surveys at the Campbell Soup Factory in Sacramento over a three-year period, then transitioned into the role of project manager and was responsible to oversee the field technicians. The scope of work included sampling and identification of suspect asbestos-containing materials upon receipt of laboratory analytical results. The data collected was compiled into a database for use by the client in locating identified asbestos-containing materials.

Asbestos and Lead-Based Paint Surveys* (Staff Scientist)

Danielle performed more than 25 asbestos and lead-based paint surveys for a national cellular company. The survey work included the review of drawings showing proposed antennae and associated equipment locations and performing a path of construction survey for the potentially affected suspect asbestos-containing materials and suspect lead-based paint. Danielle prepared site-specific reports with recommendations and conclusions from the laboratory analytical results and observed conditions.

Former Tesoro Coke Facility, Pittsburg, California (Project Scientist)

Danielle was a Project Scientist responsible for preparing pre-mothball assessments, demolition plans, and assisting in preparation of specifications for their petroleum coke facility located in Pittsburg, California. Tesoro wanted to generate the appropriate documents to mothball the facility as well as perform on going environmental monitoring in regards to storm water and spill prevention countermeasures. There were 20 structures at the facility ultimately scheduled for demolition. Tasks included the preparation of an asbestos and lead-based paint survey report that would provide compliance with applicable standards for the demolition of the structures. More than 200 samples were collected over the span of two days. A report was prepared that will stand up to regulatory scrutiny for demolition while providing the information need for worker safety during demolition activities at the facility.

** denotes projects completed with other firms*

Danielle Manning CSST, LRCIA

Project Manager

Environmental Assessments

Hewlett-Packard Company Phase I Environmental Site Assessment, Palo Alto, California (Project Scientist)

Danielle performed a Phase I ESA on the 46-acre HP Palo Alto campus, which is comprised on nine buildings and other site improvements utilized for research and development. The scope of work included site walks, identifying environmental concerns, interviewing property owners and appropriate government officials, researching historical documents, and preparing reports in accordance with applicable ASTM and client standards.

Phase I Environmental Site Assessments, Various Locations (Associate Scientist)

Danielle has performed more than 400 Phase I ESAs, which includes site walks, identifying environmental concerns, interviewing property owners and appropriate government officials, researching historical documents, and preparing reports in accordance with applicable ASTM and client standards. Her Phase I experience includes the investigation of commercial and industrial businesses, office parks, truck terminals, retail gasoline stations, residential areas, and undeveloped land. Additionally, she has experience with the collection of drinking water samples for lead analysis and Radon sampling.

Phase I/II Environmental Site Assessments, Various Locations (Project Manager/Project Scientist)

Danielle is responsible for coordinating and managing all aspects of due diligence projects including budget tracking, proposal production, staff and client management, report review, and marketing. She also manages employees performing Phase I ESAs. She provided client management for a 73-site portfolio of Phase I ESAs, which were conducted by multiple nation-wide offices. Her project management responsibilities included coordinating site access, providing report template, technical review of reports, budget tracking, and invoicing.

Oil & Gas

Retail Gasoline Station Site Remediation, Various Locations (Portfolio Manager)

Danielle manages the Northern California portion for a national retail petroleum client program for Stantec, which includes 24 operating or former retail gasoline station sites that totaled $1.8M annually in gross revenue. Projects involved underground storage tank site characterizations and remedial investigations through closure. Responsibilities include budget management, permit compliance, senior review of deliverables, scheduling, staff management and development, interaction and compliance with regulatory agencies, and client support and management.

Waste (Solid/Hazardous Materials) Management

National Retail Petroleum Client, California and Nevada, (Project Manager)

As the Project Manager, Danielle is responsible for waste stream coordination and disposal of waste streams generated during UST system removal projects and UST investigations (i.e. groundwater sampling, drilling, assessment, remedial implementation, and site decommissioning). Tasks include pre-field coordination of onsite waste containers, onsite waste management, manifesting, resource scheduling, soil, groundwater, and waste sampling for laboratory analysis, and coordinating offsite disposal.

** denotes projects completed with other firms*

Neil H Doran PG

Senior Geologist

Mr. Doran has 13 years of professional consulting experience providing field implementation, task management, and project management of environmental characterization and remediation projects. His specific experience includes subsurface site assessment and characterization, remedial plan design and implementation, development and management of groundwater monitoring programs, environmental compliance monitoring for remediation projects, underground storage tank removals and investigations, development and implementation of in-situ remediation projects at petroleum and solvent sites, due diligence property evaluations, and human health and ecological risk assessments.

EDUCATION

BS, Geology, San Francisco State University, San Francisco, California, 1998

REGISTRATIONS

Professional Geologist #8503, State of California

PROJECT EXPERIENCE

Environmental Site Assessments Phase I, II, III
Pacific Gas and Electric Company (PG&E) Service Centers, Davis and Emeryville, California (Project Manager)

Neil managed ongoing environmental investigations at regional service centers operated by PG&E. His findings of initial Phase I site assessments were used to guide subsequent investigations of soil, groundwater, and soil gas conditions at the sites. The project milestones he reached included identification of historical sources of chemical impacts, delineation of chemical constituents in various media, and investigation and dismissal of site features identified in the Phase I as potential sources of contamination. Work was performed under voluntary cleanup agreements with state regulatory agencies. The anticipated project trajectories consist of using a detailed human health and ecological risk evaluation to focus future characterization and potential remediation activities, with the ultimate goal of site certification and closure.

Environmental Site Remediation
Former PG&E G Street Substation, Fresno, California (Project Manager)

Neil managed the assessment and remediation at a former PG&E Substation. Historical investigations completed by others indicated chemical impacts to shallow soils from metals, petroleum hydrocarbons, PCBs, and polyaromatic hydrocarbons. In 2007, PG&E entered into a voluntary cleanup agreement with the DTSC to oversee investigation and cleanup operations at the site, with the ultimate goal of certifying the site for unrestricted use. Stantec completed a Preliminary Endangerment Assessment that included a human health risk assessment and site-specific cleanup goals for constituents of concern. Following DTSC approval, Stantec prepared a Removal Action Work Plan recommending site-wide excavation of soils to approximately 1.5 feet. The DTSC approved the cleanup goals and the remedial approach, and excavation was completed in June 2009. During the remediation phase, Neil worked closely with PG&E and the DTSC as dynamic field conditions arose which required variations from the proposed scope of work. This relationship, consisting of daily site visits from DTSC staff and frequent discussion of field conditions and analytical data, was crucial in ensuring ultimate regulatory approval of the remediation and certification of the site for unrestricted use.

Neil H Doran PG

Senior Geologist

Varian Medical Systems, Palo Alto, California (Task Manager)

Neil implemented in-situ chemical oxidation program to reduce concentrations of chlorinated solvents in multiple groundwater aquifers beneath a former manufacturing. His project role consisted of permitting and managing the delivery, storage, preparation, and injection of sodium permanganate, a strong oxidizing agent. Injection activities consisted of dilution of the oxidizer and injection into wells installed into multiple water-bearing zones spaced across the site. Post-treatment monitoring data reveal that the primary source area was treated with no chemical concentration rebound observed approximately 18 months following treatment, and that no material expansion of the plumes has occurred. Stantec will complete the second year of post-treatment monitoring in 2009, and plans to use the post-treatment monitoring data along with predictive contaminant fate and transport modeling tools to assess the viability of recommending monitored natural attenuation as the final remedy for site groundwater.

Former Litton Electron Devices Facility, San Carlos, California (Project Manager)

Neil designed and implemented pilot-scale in situ bioremediation program at Northrop Grumman legacy site with shallow groundwater impacted by chlorinated solvents. Remediation program used bioaugmentation and biostimulation techniques to accelerate the degradation of chlorinated hydrocarbons in groundwater. Following successful completion of the pilot study, Stantec was retained to design a full-scale bioremediation program for the site. The program is expected to achieve water quality goals within 24 to 48 months, allowing the site to be closed to regulatory oversight.

Groundwater Monitoring and Reporting Hewlett-Packard Fountaingrove, Santa Rosa, California (Project Manager)

Neil managed the post-treatment groundwater monitoring and reporting at a legacy Hewlett-Packard chlorinated solvent site. The project milestones he met included successful negotiation of reduced groundwater monitoring schedule and use of passive sampling technology, resulting in reduced ongoing monitoring costs. The monitoring and reporting effort includes a five-year review evaluating the effectiveness of monitored natural attenuation as a final remedy for the site.

** denotes projects completed with other firms*

APPENDIX C
User Provided Information and Questionnaire

PHASE I ESA USER'S QUESTIONNAIRE

In order to qualify for protection from land owner liability under CERCLA as an *innocent landowner, bona fide prospective purchaser,* or *contiguous property owner*, ASTM standard practice E1527-13 and the federal AAI rule (40 CFR 312) require that the User of the Phase I ESA report provide certain information (if available) to the Environmental Professional completing the assessment. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Information that is not or cannot be provided to the Environmental Professional may be identified as a "data gap" in the Phase I ESA report.

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec.

1. Property Information

Property Name: _____Fifth Standard _____

Property Address: __APNs: 075-060-15S, 075-060-52S-9, 075-070-01S, 075-070-32S, 075-070-34S, 075-130-10S-1, 075-130-12S-3, 075-130-54S, 075-130-59S, 075-130-60S, 075-070-33, and 075-070-35_____

City: __Huron, Fresno County_____ State _CA____ Zip __93234_____

Property Owner Name: _G3 Farming Trust, Woolf Properties, and Woolf Family Trust No. 1_____

Property Owner Phone #: _____Stuart Woolf, 559-381-0444

2. Key Site Manager

This should be an individual with good knowledge of the uses and physical characteristics of the property, and the processes or activities currently conducted at the property. Often this will be the property manager, chief physical plant supervisor, or head maintenance person.

Name: Rick Blankenship

Company/Organization/Title: Ranch Manager, Woolf Farming

Phone # _559-226-9292_____ E-Mail Address: _rblankenship@woolffarming.com____

3. Contact For Site Access (*if different from Key Site Manager)*

Name: _____

Company/Organization/Title: _____

Phone # _____ E-Mail Address: _____

4. Environmental Cleanup Liens. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

_____ Yes _____X____ No

If yes, describe or attach details of the lien_____

_____

5. Activity and Land Use Limitations. Are you aware of any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded as applicable to the property as a result of environmental contamination, investigation, cleanup, or related matters?

_____ Yes ____X_____ No

If yes, describe or attach details of the limitations__Williamson Act contracts are in place, which limit allowable uses of the site, but these are not in place due to environmental contamination or related matters._____

6. Specialized Knowledge or Experience. As the User of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property, such that you would have specialized knowledge about chemicals and processes used by this type of business?

_____ Yes ____X_____ No

If yes, describe or attach details of your specialized knowledge or experience_____
_____

7. Relationship of Purchase Price to Fair Market Value of Property. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, do you have any reason to believe that the reduced purchase price may be related to contamination known or believed to be present at the property?

_____ Yes, I have reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

_____X____ No, I have no reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

_____ Not applicable. User is not involved in a purchase or sale of the property.

8. Commonly Known or Reasonably Ascertainable Information. 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 of hazardous substances or petroleum products? For example:

Do you know the past uses of the property?
____X___ Yes (describe) __Based on my discussions with landowner, site has been used for farming____
_____ No

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?
____X___ Yes (describe) __An easement for a pipeline carrying petroleum projects was granted in the 1930's and is recorded against the property title. Chevron is the current grantee, and they have conducted fieldwork recently to confirm the presence/absence of the pipeline. My understanding is that they have concluded that a pipeline is present, and they expect to remove it in 2018._____
_____ No

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?

_____ Yes (describe) _____

_____

__X__ No

Do you know of any environmental cleanups that have taken place at the property?

_____ Yes (describe) _____

_____

__X__ No

9. The Degree of Obviousness of Contamination. E1527-05 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation. Based on your knowledge and experience related to the property, are there any *obvious* indictors that point to the presence or likely presence of contamination at the property?

_____ Yes (describe) _____

_____

__X__ No

10. Availability of Previous Environmental Reports. Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition?

__X__ Yes (please identify and provide copies, if available) E.ON has commissioned a biological assessment, cultural surveys, and a geotechnical investigation.

_____

_____ No

Signature: Matt Stucky

Name (printed): Matt Stucky

Company: E.ON Climate & Renewables

Title: Development Manager

Date: 12/11/17

Exhibit A

Section 1: Description of Property

Parcel 1 (owned by G3 Farming Trust):
APN 075-060-15S

The Southeast Quarter of Section 28, Township 20 South, Range 17 East M.D.M. in the unincorporated area of the County of Fresno, State of California, according to the Official Plat thereof, consisting of 160 acres, more or less.

Parcel 2 (owned by Woolf Properties):
APN 075-060-52S-9

The Northeast quarter of Section 28, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the official plat thereof, consisting of 160 acres, more or less.

Parcel 3 (owned by G3 Farming Trust):
APN 075-070-01S

Section 27, Township 20 South, Range 17 East, M.D.M. in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, consisting of 633.96 acres, more or less.

Parcel 4 (owned by Woolf Family Trust No. 1):
APN 075-070-32S; 075-070-34S
The North Half of Section 34, Township 20 South, range 17, East, Mount Diablo Base and Meridian, According to the Official Plat thereof. Excepting therefrom the East 467 Feet of the South 934 Feet of the Northwest Quarter of Section 34, and the West 467 Feet of the South 934 Feet of the Northeast Quarter of said Section 34; consisting of 297.48 acres, more or less.

Parcel 5:
[Not Used]

Parcel 6 (owned by Woolf Family Trust No. 1):
APN 075-130-10S-1

The South Quarter of the East Half of the Southeast Quarter of the Northeast Quarter of the Southwest Quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to
the United States Government Township Plats, approved by the Surveyor General on February 28, 1855; consisting of 1.25 acres, more or less.

Parcel 7 (owned by Woolf Family Trust No. 1):
APN 075-130-12S-3

The North Half of the East Half of the Southeast Quarter of the Northeast Quarter of the Southwest Quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to
the Official Plat thereof; consisting of 2.5 acres, more or less.

Parcel 8 (owned by Woolf Family Trust No. 1):
APN 075-130-54S

The South half of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof. Except therefrom the East 50 feet; consisting of 78.48 acres, more or less.

Parcel 9 (owned by Woolf Family Trust No. 1):
APN 075-130-59S

Subparcel A:

The Northeast quarter of the Southeast quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East;. Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel B:

The North half of the Northwest quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel C:

The Southwest quarter of the Northwest quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel D:

The Southeast quarter of the Northwest quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel E:

The Northeast quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel F:

The South half of the Southeast quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel G:

The Northwest quarter of the Southeast quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel H:

The Northeast quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof.

Excepting therefrom the East 50 feet thereof.

Subparcel I:

The East half of the South half of the South half of the Southeast quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof.

Excepting therefrom the East 50 feet thereof.

Subparcel J:

The West half of the South half of the East half of the South half of the South half of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel K:

The West half of the North half of the Northwest quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel L:

The East half of the South half of the Northwest quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel M:

The East half of the North half of the Northwest quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel N:

The West half of the South half of the Northwest quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof;

Subparcel O:

The South half of the Southwest quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel P:

The North half of the South half of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Excepting therefrom the East 50 feet thereof.

Subparcel Q:

The Southwest quarter of the Northwest quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base arid Meridian, according to the Official Plat thereof.

Subparcel R:

The North half of the south half of the Southeast quarter of the Northeast quarter of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Excepting therefrom the East 50 feet therefrom.

consisting of 78.48 acres, more or less.

Parcel 10 (owned by Woolf Family Trust No. 1):
APN 075-130-60S

Subparcel A:

The Northwest quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel B:

The East half of the Northwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel C:

The North half of the Southeast quarter of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof;

Subparcel D:

The Northwest quarter of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof;

Subparcel E:

The West half of the South half of the South half of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Subparcel F:

The West half of the Northeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel G:

The North half of the East half of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel H:

The Southwest quarter of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel I:

The South half of the East half of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel J:

The West half of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel K:

The West half of the Northwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof:

Subparcel L:

The East half of the Northeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof:

consisting of 156.25 acres, more or less.

Parcel 11 (owned by Woolf Family Trust No. 1):
APNs 075-070-33 & 075-070-35

Those portions of Section 34, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof, described as follows: The East 467 feet of the South 934 feet of the Northwest quarter of said Section 34, and the West 467 feet of the South 934 feet of the Northeast quarter of Section 34, consisting of 20.02 acres, more or less.

Exhibit A

Section 2

Percent ownership of the property of Owner

Owner Name:	**Parcel(s) Owned**	**Acreage**	**Percent Interest Owned in Property:**
Stuart P. Woolf, Christopher R. Woolf and Michael T. Woolf, Managing Trustees of G3 Farming Trust, formerly titled Stuart Farming	075-060-15S 075-070-01S	793.96	50%
Woolf Properties, a California Corporation	075-060-52S-9	160	10%
Daryl Barsoom, Jason Pucheu, and Paul Fanelli, as Trustees of the Woolf Family Trust No. 1	075-070-32S; 075-070-34S 075-130-10S-1 075-130-12S-3 075-130-54S 075-130-59S 075-130-60S 075-070-33, 35	634.46	40%
	TOTAL ACREAGE =	**1588.42**	100%

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Stantec

PHASE I ESA OWNER'S QUESTIONNAIRE

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec.

1. Property Information

Property Name: Fifth Standard

Property Address: APNs: 075-060-15S, 075-060-52S-9, 075-070-01S, 075-070-32S, 075-070-34S, 075-130-10S-1, 075-130-12S-3, 075-130-54S, 075-130-59S, 075-130-60S, 075-070-33, and 075-070-35

City: Huron, Fresno County State CA Zip 93234

2. Current Property Use. Are you aware of the current use of the property?

_____X___ Yes _____ No

If yes, describe___It is being used for farming and has been for approximately 40 years.

3. Past Property Use. Are you aware of the past use of the property?

_____ Yes _____X_____ No

If yes, describe_____

4. Current Use of Surrounding Properties. Are you aware of the current use of the surrounding properties?

_____X_____ Yes _____ No

If yes, describe_____Farming_____

5. Past Use(s) of Surrounding Properties. Are you aware of the past use(s) of the surrounding properties?

_____ Yes _____X____ No

If yes, describe_____

6. Hazardous Materials Use, Storage, Disposal. Are you aware of information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products? For example:

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?

_____ Yes (describe) _____

_____X___ No

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?
_____ Yes (describe) _____
_____
_____X___ No

Do you know of any environmental cleanups that have taken place at the property?
_____ Yes (describe) _____
_____
_____X___ No

Are you aware of any pending, threatened or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?
_____ Yes (describe) _____
_____
____X____ No

Are you aware of any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?
_____ Yes (describe) _____
_____
_____X___ No

Are you aware of any pending, threatened or past notices from any governmental entity regarding possible violations of environmental laws or possible liability relating to hazardous substances or petroleum products?
_____ Yes (describe) _____
_____
_____X___ No

7. Other Environmental Information. Are you aware of any other environmental information (environmental permits, etc.)?
_____X___ Yes _____ No

If yes, describe__The only current environmental permits would be as required by the San Joaquin Valley Air Pollution Control District._____

Signature: _____

Name (printed): Paul Hartwig

Company: California Valley Land Co.

Title: Procurement Manager

Date: 12/12/17

APPENDIX D
Environmental Database Report

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234

Inquiry Number: 5068323.2s
October 04, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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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 (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

FIFTH STANDARD PROPERTY
HURON, CA 93234

COORDINATES

Latitude (North):	36.1600020 - 36° 9' 36.00''
Longitude (West):	120.1142000 - 120° 6' 51.12''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	759603.7
UTM Y (Meters):	4005353.8
Elevation:	393 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602496 HURON, CA
Version Date:	2012
Southeast Map:	5602942 LA CIMA, CA
Version Date:	2012
Southwest Map:	5602454 AVENAL, CA
Version Date:	2012
Northwest Map:	5602484 GUIJARRAL HILLS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140619
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
FIFTH STANDARD PROPERTY
HURON, CA 93234

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	WOOLF BURNETT FARMS	17101 TRACTOR AVE	CUPA Listings	Lower	3708, 0.702, NE
2		LASSEN AVENUE AT TRA	CHMIRS	Lower	5182, 0.981, NE
A3	AT&T MOBILITY - HURO	40811 SOUTH LASSEN A	FINDS	Lower	6957, 1.318, SSE
A4	AT&T MOBILITY - EH&S	40811 S. LASSEN AVEN	FINDS	Lower	6957, 1.318, SSE
A5	AT&T MOBILITY - EH&S	40811 S LASSEN AVE-	EMI	Lower	6957, 1.318, SSE
A6	AT&T MOBILITY	40811 S LASSEN AVE	CUPA Listings, EMI	Lower	6957, 1.318, SSE
A7	NEW CINGULAR WIRELES	40811 S LASSEN AVE	EMI	Lower	6957, 1.318, SSE
A8	AT&T WIRELESS SERVIC	40811 S. LASSEN AVEN	EMI	Lower	6957, 1.318, SSE
B9	WOOLF ENTERPRISES	17891 GALE AVE	US AIRS	Higher	7845, 1.486, North
B10	WOOLF ENTERPRISES	17891 GALE	RGA LUST	Higher	7845, 1.486, North
B11	WOOLF ENTERPRISES	17891 GALE	HIST CORTESE	Higher	7845, 1.486, North
B12	WOOLF ENTERPRISES	17891 GALE AVE	EMI	Higher	7845, 1.486, North
B13	WOOLF ENTERPRISES	17891 GALE	LUST, CUPA Listings	Higher	7845, 1.486, North
14	PG&E GATES SUBSTATIO	18336 W JAYNE AVE	CUPA Listings	Higher	7907, 1.498, SSW
C15	PG&E HURON SOLAR STA	17123 W GALE	CUPA Listings	Lower	8199, 1.553, NNE
C16	PG&E GATES SOLAR STA	17115 W GALE AVE	CUPA Listings, NPDES	Lower	8213, 1.555, NNE
17	STEVE MOORE FARMS	S LASSEN & JAYNE, SW	CUPA Listings	Lower	8793, 1.665, SSE
18	WESTLANDS SOLAR FARM	18393 W JAYNE AVENUE	CUPA Listings, NPDES	Higher	8828, 1.672, SSW
19	SALYER AMERICAN COOL	16980 JAYNE AVE	CUPA Listings	Lower	8921, 1.690, SSE
D20	PG&E: GATES SUBSTATI	18336 WEST JAYNE AVE	AST	Higher	9047, 1.713, SSW
D21	LEVEL 3 COMMUNICATIO	18364 W JAYNE	CUPA Listings, EMI	Higher	9108, 1.725, SSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ---------- EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CA FID UST ---- Facility Inventory Database

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program

UMTRA Uranium Mill Tailings Sites
LEAD SMELTERS Lead Smelter Sites
US MINES Mines Master Index File
ABANDONED MINES Abandoned Mines
UXO Unexploded Ordnance Sites
ECHO Enforcement & Compliance History Information
DOCKET HWC Hazardous Waste Compliance Docket Listing
FUELS PROGRAM EPA Fuels Program Registered Listing
CA BOND EXP. PLAN Bond Expenditure Plan
Cortese "Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS Cleaner Facilities
ENF Enforcement Action Listing
Financial Assurance Financial Assurance Information Listing
HAZNET Facility and Manifest Data
ICE ICE
HWP EnviroStor Permitted Facilities Listing
HWT Registered Hazardous Waste Transporter Database
MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
NPDES NPDES Permits Listing
PEST LIC Pesticide Regulation Licenses Listing
PROC Certified Processors Database
Notify 65 Proposition 65 Records
UIC UIC Listing
WASTEWATER PITS Oil Wastewater Pits Listing
WDS Waste Discharge System
WIP Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Auto EDR Exclusive Historic Gas Stations
EDR Hist Cleaner EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map 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.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: 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.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES	***17891 GALE***	***N 1 - 2 (1.486 mi.)***	***B13***	***17***
Database: LUST REG 5, Date of Government Version: 07/01/2008				
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Status: Case Closed				
Global Id: T0601900634				

State and tribal registered storage tank lists

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there is 1 AST site within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PG&E: GATES SUBSTATI	18336 WEST JAYNE AVE	SSW 1 - 2 (1.713 mi.)	D20	25

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 05/09/2017 has revealed that there is 1 CHMIRS site within approximately 1.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	LASSEN AVENUE AT TRA	NE 1/2 - 1 (0.981 mi.)	2	8
OES Incident Number: 012055				
Date Completed: 24-JUL-90				

Other Ascertainable Records

US AIRS: 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.

A review of the US AIRS list, as provided by EDR, has revealed that there is 1 US AIRS site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES	17891 GALE AVE	N 1 - 2 (1.486 mi.)	B9	15
Database: US AIRS MINOR, Date of Government Version: 10/12/2016				

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/23/2017 has revealed that there are 2 FINDS sites within approximately 1.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AT&T MOBILITY - HURO	40811 SOUTH LASSEN A	SSE 1 - 2 (1.318 mi.)	A3	9
AT&T MOBILITY - EH&S	40811 S. LASSEN AVEN	SSE 1 - 2 (1.318 mi.)	A4	9

CUPA Listings: 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.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 10 CUPA Listings sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES	***17891 GALE***	***N 1 - 2 (1.486 mi.)***	***B13***	***17***
Database: CUPA FRESNO, Date of Government Version: 06/30/2017				
Facility Id: FA0273340				
PG&E GATES SUBSTATIO	18336 W JAYNE AVE	SSW 1 - 2 (1.498 mi.)	14	19
Database: CUPA FRESNO, Date of Government Version: 06/30/2017				
Facility Id: FA0270175				
WESTLANDS SOLAR FARM	***18393 W JAYNE AVENUE***	***SSW 1 - 2 (1.672 mi.)***	***18***	***22***
Database: CUPA FRESNO, Date of Government Version: 06/30/2017				
Facility Id: FA0283656				
LEVEL 3 COMMUNICATIO	***18364 W JAYNE***	***SSW 1 - 2 (1.725 mi.)***	***D21***	***26***
Database: CUPA FRESNO, Date of Government Version: 06/30/2017				

Facility Id: FA0278134
Facility Id: FA0283130

Lower Elevation	Address	Direction / Distance	Map ID	Page
WOOLF BURNETT FARMS Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0277522	17101 TRACTOR AVE	NE 1/2 - 1 (0.702 mi.)	1	8
AT&T MOBILITY Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0276897	***40811 S LASSEN AVE***	***SSE 1 - 2 (1.318 mi.)***	***A6***	***12***
PG&E HURON SOLAR STA Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0282781	17123 W GALE	NNE 1 - 2 (1.553 mi.)	C15	20
PG&E GATES SOLAR STA Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0283129	***17115 W GALE AVE***	***NNE 1 - 2 (1.555 mi.)***	***C16***	***20***
STEVE MOORE FARMS Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0281465	S LASSEN & JAYNE, SW	SSE 1 - 2 (1.665 mi.)	17	22
SALYER AMERICAN COOL Database: CUPA FRESNO, Date of Government Version: 06/30/2017 Facility Id: FA0270198	16980 JAYNE AVE	SSE 1 - 2 (1.690 mi.)	19	25

EMI: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2015 has revealed that there are 5 EMI sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES Facility Id: 194	17891 GALE AVE	N 1 - 2 (1.486 mi.)	B12	16

Lower Elevation	Address	Direction / Distance	Map ID	Page
AT&T MOBILITY - EH&S Facility Id: 3412	40811 S LASSEN AVE-	SSE 1 - 2 (1.318 mi.)	A5	10
AT&T MOBILITY Facility Id: 3412	***40811 S LASSEN AVE***	***SSE 1 - 2 (1.318 mi.)***	***A6***	***12***
NEW CINGULAR WIRELES Facility Id: 3412	40811 S LASSEN AVE	SSE 1 - 2 (1.318 mi.)	A7	14
AT&T WIRELESS SERVIC Facility Id: 3412	40811 S. LASSEN AVEN	SSE 1 - 2 (1.318 mi.)	A8	14

HIST CORTESE: 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.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES Reg Id: 5T10000655	17891 GALE	N 1 - 2 (1.486 mi.)	B11	16

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: 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.

A review of the RGA LUST list, as provided by EDR, has revealed that there is 1 RGA LUST site within approximately 1.5 miles of the target property.

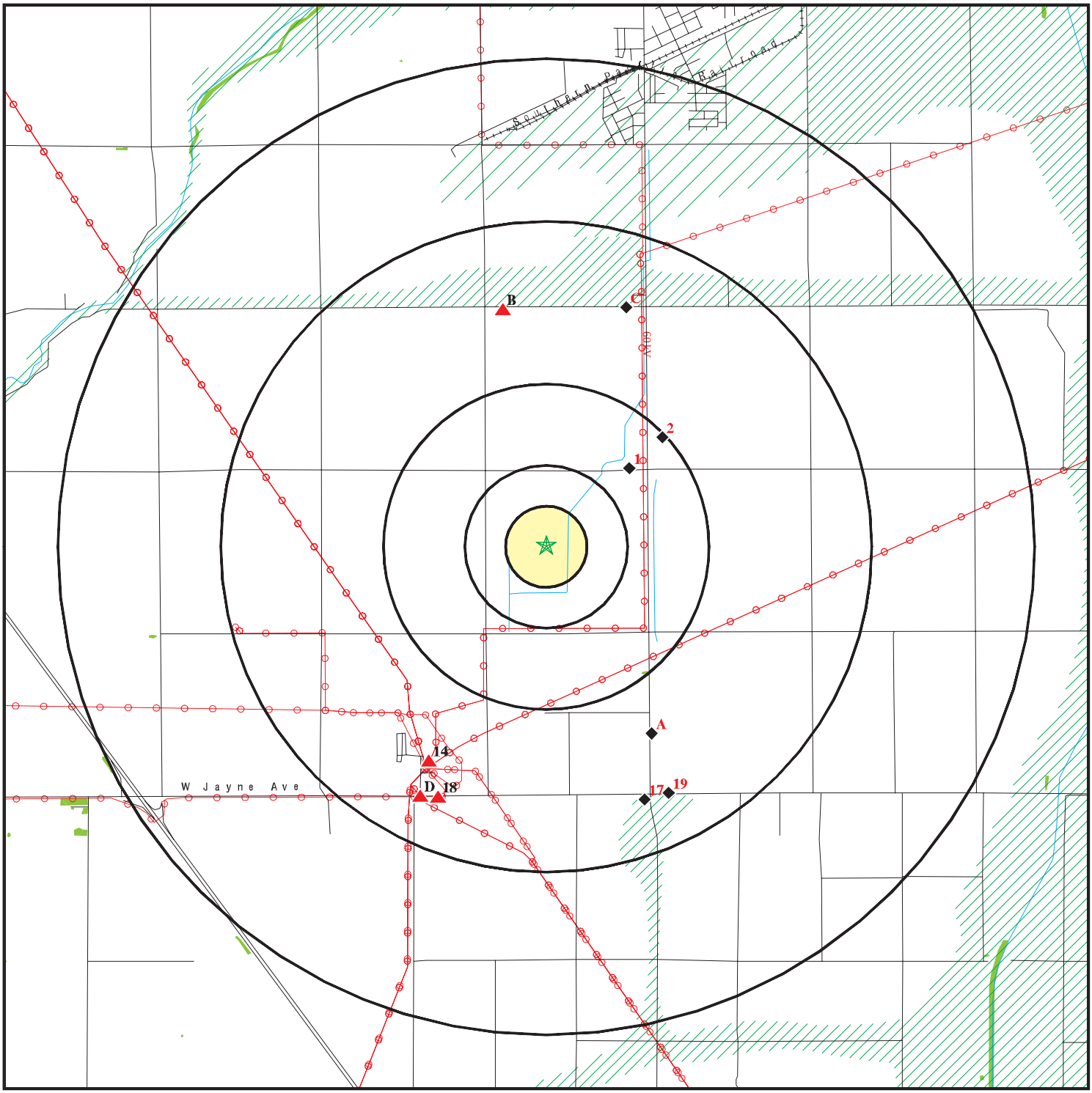
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WOOLF ENTERPRISES	17891 GALE	N 1 - 2 (1.486 mi.)	B10	16

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
	CDL
	CDL
GIFFEN DUMP SITE	SEMS-ARCHIVE

OVERVIEW MAP - 5068323.2S



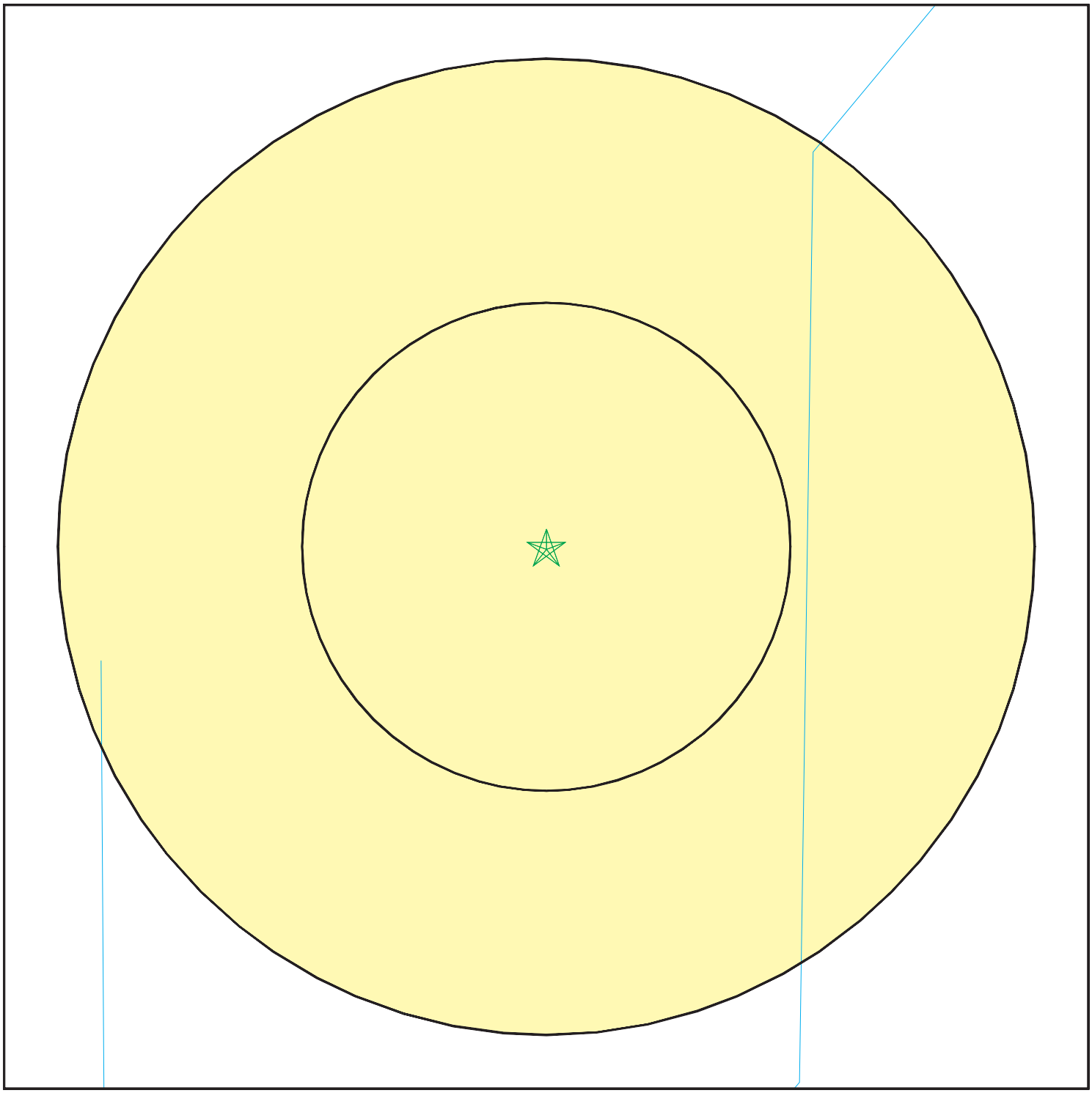
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Fifth Standard Property	CLIENT: Stantec
ADDRESS: Fifth Standard Property Huron CA 93234	CONTACT: Corinne Ackerman
LAT/LONG: 36.160002 / 120.1142	INQUIRY #: 5068323.2s DATE: October 04, 2017 5:33 pm

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DETAIL MAP - 5068323.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA
100-year flood zone
500-year flood zone

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Fifth Standard Property ADDRESS: Fifth Standard Property Huron CA 93234 LAT/LONG: 36.160002 / 120.1142	CLIENT: Stantec CONTACT: Corinne Ackerman INQUIRY #: 5068323.2s DATE: October 04, 2017 5:36 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								
Federal NPL site list								
NPL	2.500		0	0	0	0	0	0
Proposed NPL	2.500		0	0	0	0	0	0
NPL LIENS	1.500		0	0	0	0	0	0
Federal Delisted NPL site list								
Delisted NPL	2.500		0	0	0	0	0	0
Federal CERCLIS list								
FEDERAL FACILITY	2.000		0	0	0	0	0	0
SEMS	2.000		0	0	0	0	0	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	2.000		0	0	0	0	0	0
Federal RCRA CORRACTS facilities list								
CORRACTS	2.500		0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	2.000		0	0	0	0	0	0
Federal RCRA generators list								
RCRA-LQG	1.750		0	0	0	0	0	0
RCRA-SQG	1.750		0	0	0	0	0	0
RCRA-CESQG	1.750		0	0	0	0	0	0
Federal institutional controls / engineering controls registries								
LUCIS	2.000		0	0	0	0	0	0
US ENG CONTROLS	2.000		0	0	0	0	0	0
US INST CONTROL	2.000		0	0	0	0	0	0
Federal ERNS list								
ERNS	1.500		0	0	0	0	0	0
State- and tribal - equivalent NPL								
RESPONSE	2.500		0	0	0	0	0	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	2.500		0	0	0	0	0	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	2.000		0	0	0	0	0	0
State and tribal leaking storage tank lists								
LUST	2.000		0	0	0	0	1	1

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
INDIAN LUST	2.000		0	0	0	0	0	0
SLIC	2.000		0	0	0	0	0	0
State and tribal registered storage tank lists								
FEMA UST	1.750		0	0	0	0	0	0
UST	1.750		0	0	0	0	0	0
AST	1.750		0	0	0	0	1	1
INDIAN UST	1.750		0	0	0	0	0	0
State and tribal voluntary cleanup sites								
INDIAN VCP	2.000		0	0	0	0	0	0
VCP	2.000		0	0	0	0	0	0
State and tribal Brownfields sites								
BROWNFIELDS	2.000		0	0	0	0	0	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	2.000		0	0	0	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	2.000		0	0	0	0	0	0
SWRCY	2.000		0	0	0	0	0	0
HAULERS	1.500		0	0	0	0	0	0
INDIAN ODI	2.000		0	0	0	0	0	0
DEBRIS REGION 9	2.000		0	0	0	0	0	0
ODI	2.000		0	0	0	0	0	0
IHS OPEN DUMPS	2.000		0	0	0	0	0	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	1.500		0	0	0	0	0	0
HIST Cal-Sites	2.500		0	0	0	0	0	0
SCH	1.750		0	0	0	0	0	0
CDL	1.500		0	0	0	0	0	0
Toxic Pits	2.500		0	0	0	0	0	0
US CDL	1.500		0	0	0	0	0	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	1.750		0	0	0	0	0	0
HIST UST	1.750		0	0	0	0	0	0
CA FID UST	1.750		0	0	0	0	0	0
Local Land Records								
LIENS	1.500		0	0	0	0	0	0
LIENS 2	1.500		0	0	0	0	0	0
DEED	2.000		0	0	0	0	0	0
Records of Emergency Release Reports								
HMIRS	1.500		0	0	0	0	0	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
CHMIRS	1.500		0	0	0	1	0	1
LDS	1.500		0	0	0	0	0	0
MCS	1.500		0	0	0	0	0	0
SPILLS 90	1.500		0	0	0	0	0	0
Other Ascertainable Records								
RCRA NonGen / NLR	1.750		0	0	0	0	0	0
FUDS	2.500		0	0	0	0	0	0
DOD	2.500		0	0	0	0	0	0
SCRD DRYCLEANERS	2.000		0	0	0	0	0	0
US FIN ASSUR	1.500		0	0	0	0	0	0
EPA WATCH LIST	1.500		0	0	0	0	0	0
2020 COR ACTION	1.750		0	0	0	0	0	0
TSCA	1.500		0	0	0	0	0	0
TRIS	1.500		0	0	0	0	0	0
SSTS	1.500		0	0	0	0	0	0
ROD	2.500		0	0	0	0	0	0
RMP	1.500		0	0	0	0	0	0
RAATS	1.500		0	0	0	0	0	0
PRP	1.500		0	0	0	0	0	0
PADS	1.500		0	0	0	0	0	0
ICIS	1.500		0	0	0	0	0	0
FTTS	1.500		0	0	0	0	0	0
MLTS	1.500		0	0	0	0	0	0
COAL ASH DOE	1.500		0	0	0	0	0	0
COAL ASH EPA	2.000		0	0	0	0	0	0
PCB TRANSFORMER	1.500		0	0	0	0	0	0
RADINFO	1.500		0	0	0	0	0	0
HIST FTTS	1.500		0	0	0	0	0	0
DOT OPS	1.500		0	0	0	0	0	0
CONSENT	2.500		0	0	0	0	0	0
INDIAN RESERV	2.500		0	0	0	0	0	0
FUSRAP	2.500		0	0	0	0	0	0
UMTRA	2.000		0	0	0	0	0	0
LEAD SMELTERS	1.500		0	0	0	0	0	0
US AIRS	1.500		0	0	0	0	1	1
US MINES	1.750		0	0	0	0	0	0
ABANDONED MINES	1.750		0	0	0	0	0	0
FINDS	1.500		0	0	0	0	2	2
UXO	2.500		0	0	0	0	0	0
ECHO	1.500		0	0	0	0	0	0
DOCKET HWC	1.500		0	0	0	0	0	0
FUELS PROGRAM	1.750		0	0	0	0	0	0
CA BOND EXP. PLAN	2.500		0	0	0	0	0	0
Cortese	2.000		0	0	0	0	0	0
CUPA Listings	1.750		0	0	0	1	9	10
DRYCLEANERS	1.750		0	0	0	0	0	0
EMI	1.500		0	0	0	0	5	5
ENF	1.500		0	0	0	0	0	0
Financial Assurance	1.500		0	0	0	0	0	0
HAZNET	1.500		0	0	0	0	0	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
ICE	1.500		0	0	0	0	0	0
HIST CORTESE	2.000		0	0	0	0	1	1
HWP	2.500		0	0	0	0	0	0
HWT	1.750		0	0	0	0	0	0
MINES	1.750		0	0	0	0	0	0
MWMP	1.750		0	0	0	0	0	0
NPDES	1.500		0	0	0	0	0	0
PEST LIC	1.500		0	0	0	0	0	0
PROC	2.000		0	0	0	0	0	0
Notify 65	2.500		0	0	0	0	0	0
UIC	1.500		0	0	0	0	0	0
WASTEWATER PITS	2.000		0	0	0	0	0	0
WDS	1.500		0	0	0	0	0	0
WIP	1.750		0	0	0	0	0	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	2.500		0	0	0	0	0	0
EDR Hist Auto	1.625		0	0	0	0	0	0
EDR Hist Cleaner	1.625		0	0	0	0	0	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	1.500		0	0	0	0	0	0
RGA LUST	1.500		0	0	0	0	1	1
- Totals --		0	0	0	0	2	21	23

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NE
1/2-1
0.702 mi.
3708 ft.

WOOLF BURNETT FARMS
17101 TRACTOR AVE
HURON, CA 93234

CUPA Listings **S106843451**
N/A

Relative:
Lower

Actual:
384 ft.

CUPA FRESNO:

Facility ID:	FA0277522
Cross Street:	Not reported
APM Number:	Not reported
CERS Id:	10704880
SWIS Number:	Not reported
GIS Latitude:	Not reported
GIS Longitude:	Not reported
Program Element:	HAZARDOUS MATERIALS HANDLER FARM EXEMPTION

2
NE
1/2-1
0.981 mi.
5182 ft.

LASSEN AVENUE AT TRACTOR
HURON, CA 93234

CHMIRS **S100279873**
N/A

Relative:
Lower

Actual:
380 ft.

CHMIRS:

OES Incident Number:	012055
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**24-JUL-90**
Property Use:	961
Agency Id Number:	10728
Agency Incident Number:	UNKNOWN
Time Notified:	1215
Time Completed:	1445
Surrounding Area:	650
Estimated Temperature:	92
Property Management:	S
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	DAVID POMAVILLE
Report Date:	24-JUL-90
Facility Telephone:	209 445-3271
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported

(Continued) **S100279873**

Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	24-JUL-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	29-MAY-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	N
Description:	Not reported

A3 **AT&T MOBILITY - HURON (9570)** **FINDS** **1023332237**
SSE **40811 SOUTH LASSEN AVENUE** **N/A**
> 1 **HURON, CA 93234**
1.318 mi.
6957 ft. **Site 1 of 6 in cluster A**

Relative:
Lower

FINDS:

Registry ID: 110066269754

Actual:
380 ft.

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A4 **AT&T MOBILITY - EH&S COMPLIANCE - USID 9570** **FINDS** **1008245639**
SSE **40811 S. LASSEN AVENUE** **N/A**
> 1 **HURON, CA 93234**
1.318 mi.
6957 ft. **Site 2 of 6 in cluster A**

Relative:
Lower

FINDS:

Registry ID: 110021335107

Actual:
380 ft.

AT&T MOBILITY - EH&S COMPLIANCE - USID 9570 (Continued) **1008245639**

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A5 **AT&T MOBILITY - EH&S COMPLIANCE - USID 9570** **EMI** **S110501543**
SSE **40811 S LASSEN AVE- USID 9570** **N/A**
> 1 **HURON, CA 93234**
1.318 mi.
6957 ft. **Site 3 of 6 in cluster A**

Relative:
Lower

Actual:
380 ft.

EMI:

Year:	2008
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0408643342277414660
Reactive Organic Gases Tons/Yr:	.00373500014841557
Carbon Monoxide Emissions Tons/Yr:	.00580500023066998
NOX - Oxides of Nitrogen Tons/Yr:	.00435150017291307
SOX - Oxides of Sulphur Tons/Yr:	.0000157500006258488
Particulate Matter Tons/Yr:	.0002263581578880251
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000225000008940697

Year:	2009
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.3079867897070206E-2
Reactive Organic Gases Tons/Yr:	8.5074999257922206E-3
Carbon Monoxide Emissions Tons/Yr:	0.013222499884665
NOX - Oxides of Nitrogen Tons/Yr:	9.9117499135434606E-3
SOX - Oxides of Sulphur Tons/Yr:	3.5874999687075602E-5
Particulate Matter Tons/Yr:	5.1559355687087695E-4
Part. Matter 10 Micrometers and Smllr Tons/Yr:	5.1249999552965201E-4

Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.3107221006564503E-2

AT&T MOBILITY - EH&S COMPLIANCE - USID 9570 (Continued) **S110501543**

Reactive Organic Gases Tons/Yr:	8.5100000000000002E-3
Carbon Monoxide Emissions Tons/Yr:	0.0132225
NOX - Oxides of Nitrogen Tons/Yr:	9.9100000000000004E-3
SOX - Oxides of Sulphur Tons/Yr:	3.5899999999999998E-5
Particulate Matter Tons/Yr:	5.1509054325955697E-4
Part. Matter 10 Micrometers and Smllr Tons/Yr:	5.1199999999999998E-4

Year:	2011
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.015281217811
Reactive Organic Gases Tons/Yr:	0.0013967033079
Carbon Monoxide Emissions Tons/Yr:	0.0021694498116
NOX - Oxides of Nitrogen Tons/Yr:	0.0016270873587
SOX - Oxides of Sulphur Tons/Yr:	5.888749969e-006
Particulate Matter Tons/Yr:	8.4501192337e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	8.3994185183e-005

Year:	2012
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.029972076533
Reactive Organic Gases Tons/Yr:	0.0027394477952
Carbon Monoxide Emissions Tons/Yr:	0.0042550872969
NOX - Oxides of Nitrogen Tons/Yr:	0.0031913154727
SOX - Oxides of Sulphur Tons/Yr:	1.1549999937e-005
Particulate Matter Tons/Yr:	0.00016573785121
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00016474342411

Year:	2013
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.018152524168
Reactive Organic Gases Tons/Yr:	0.00169
Carbon Monoxide Emissions Tons/Yr:	0.00262
NOX - Oxides of Nitrogen Tons/Yr:	0.00197
SOX - Oxides of Sulphur Tons/Yr:	7.12e-006
Particulate Matter Tons/Yr:	0.00010261569416
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000102

AT&T MOBILITY - EH&S COMPLIANCE - USID 9570 (Continued) **S110501543**

Year:	2014
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.0085451308306
Reactive Organic Gases Tons/Yr:	0.00079555168033
Carbon Monoxide Emissions Tons/Yr:	0.0010597440004
NOX - Oxides of Nitrogen Tons/Yr:	0.00079555168033
SOX - Oxides of Sulphur Tons/Yr:	7.9573760033e-006
Particulate Matter Tons/Yr:	0.00011738771836
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00011668339205

Year:	2015
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.0051922663802
Reactive Organic Gases Tons/Yr:	0.0004834
Carbon Monoxide Emissions Tons/Yr:	0.0006438
NOX - Oxides of Nitrogen Tons/Yr:	0.0004834
SOX - Oxides of Sulphur Tons/Yr:	4.834e-006
Particulate Matter Tons/Yr:	7.129778672e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	7.087e-005

A6 **AT&T MOBILITY** **CUPA Listings** **S106920079**
SSE **40811 S LASSEN AVE** **EMI** **N/A**
> 1
1.318 mi.
6957 ft. **Site 4 of 6 in cluster A**

Relative:
Lower

Actual:
380 ft.

CUPA FRESNO:

Facility ID:	FA0276897
Cross Street:	Not reported
APM Number:	07507054S
CERS Id:	10408171
SWIS Number:	Not reported
GIS Latitude:	36.142300
GIS Longitude:	-120.101700
Program Element:	SMALL HAZARDOUS MATERIALS HANDLER

EMI:

Year:	2003
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813

AT&T MOBILITY (Continued) **S106920079**

Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.034053612
Reactive Organic Gases Tons/Yr:	0.0031125
Carbon Monoxide Emissions Tons/Yr:	0.0048375
NOX - Oxides of Nitrogen Tons/Yr:	0.0052125
SOX - Oxides of Sulphur Tons/Yr:	1.3125E-05
Particulate Matter Tons/Yr:	0.0001875
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000186375

Year:	2006
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0334224837304335886
Reactive Organic Gases Tons/Yr:	.00305481501296163
Carbon Monoxide Emissions Tons/Yr:	.00474784502014518
NOX - Oxides of Nitrogen Tons/Yr:	.00355904351510108
SOX - Oxides of Sulphur Tons/Yr:	.0000128817500546575
Particulate Matter Tons/Yr:	.0001851358156748702
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000184025000780821

Year:	2007
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0344054966643289934
Reactive Organic Gases Tons/Yr:	.00314466239511967
Carbon Monoxide Emissions Tons/Yr:	.00488748733699322

AT&T MOBILITY (Continued) **S106920079**

NOX - Oxides of Nitrogen Tons/Yr:	.00366372112780809
SOX - Oxides of Sulphur Tons/Yr:	.0000132606245577335
Particulate Matter Tons/Yr:	.0001905809795592635
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000189437493681908

A7 **NEW CINGULAR WIRELESS - HURON 27596** **EMI** **S108432624**
SSE **40811 S LASSEN AVE** **N/A**
> 1 **HURON, CA 93234**
1.318 mi.
6957 ft. **Site 5 of 6 in cluster A**

Relative:
Lower

Actual:
380 ft.

EMI:

Year:	2005
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0334224837304335886
Reactive Organic Gases Tons/Yr:	.00305481501296163
Carbon Monoxide Emissions Tons/Yr:	.00474784502014518
NOX - Oxides of Nitrogen Tons/Yr:	.00355904351510108
SOX - Oxides of Sulphur Tons/Yr:	.0000128817500546575
Particulate Matter Tons/Yr:	.0001851358156748702
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000184025000780821

A8 **AT&T WIRELESS SERVICES** **EMI** **S105936588**
SSE **40811 S. LASSEN AVENUE** **N/A**
> 1 **HURON, CA**
1.318 mi.
6957 ft. **Site 6 of 6 in cluster A**

Relative:
Lower

Actual:
380 ft.

EMI:

Year:	2000
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2001
County Code:	10
Air Basin:	SJV

AT&T WIRELESS SERVICES (Continued) **S105936588**

Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2002
County Code:	10
Air Basin:	SJV
Facility ID:	3412
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

B9
North
> 1
1.486 mi.
7845 ft.

WOOLF ENTERPRISES **US AIRS** **1012216825**
17891 GALE AVE **N/A**
HURON, CA 93234

Site 1 of 5 in cluster B

Relative:
Higher

Actual:
399 ft.

US AIRS MINOR:

Envid:	1012216825
Region Code:	09
Programmatic ID:	AIR CASJV00006019C0194
Facility Registry ID:	110010480737
D and B Number:	Not reported
Primary SIC Code:	0139
NAICS Code:	111199
Default Air Classification Code:	MIN
Facility Type of Ownership Code:	POF
Air CMS Category Code:	Not reported
HPV Status:	Not reported

B10 **WOOLF ENTERPRISES** **RGA LUST** **S114723108**
North **17891 GALE** **N/A**
> 1 **HURON, CA**
1.486 mi.
7845 ft. **Site 2 of 5 in cluster B**

Relative:
Higher

Actual:
399 ft.

RGA LUST:

2012	WOOLF ENTERPRISES	17891 GALE
2011	WOOLF ENTERPRISES	17891 GALE
2010	WOOLF ENTERPRISES	17891 GALE
2009	WOOLF ENTERPRISES	17891 GALE
2008	WOOLF ENTERPRISES	17891 GALE
2007	WOOLF ENTERPRISES	17891 GALE
2006	WOOLF ENTERPRISES	17891 GALE
2005	WOOLF ENTERPRISES	17891 GALE
2003	WOOLF ENTERPRISES	17891 GALE
2002	WOOLF ENTERPRISES	17891 GALE
2001	WOOLF ENTERPRISES	17891 GALE
2000	WOOLF ENTERPRISES	17891 GALE
1998	WOOLF ENTERPRISES	17891 GALE

B11 **WOOLF ENTERPRISES** **HIST CORTESE** **S103286217**
North **17891 GALE** **N/A**
> 1 **HURON, CA 93234**
1.486 mi.
7845 ft. **Site 3 of 5 in cluster B**

Relative:
Higher

Actual:
399 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	10
Reg By:	LTNKA
Reg Id:	5T10000655

B12 **WOOLF ENTERPRISES** **EMI** **S113748475**
North **17891 GALE AVE** **N/A**
> 1 **HURON, CA 93234**
1.486 mi.
7845 ft. **Site 4 of 5 in cluster B**

Relative:
Higher

Actual:
399 ft.

EMI:

Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	194
Air District Name:	SJU
SIC Code:	139
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	47.420614793334302
Reactive Organic Gases Tons/Yr:	6.4107981479999996
Carbon Monoxide Emissions Tons/Yr:	25.795373817000002
NOX - Oxides of Nitrogen Tons/Yr:	162.992340869
SOX - Oxides of Sulphur Tons/Yr:	0.11810658
Particulate Matter Tons/Yr:	1.4352337431907001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.4070457409999999

Year:	2011

WOOLF ENTERPRISES (Continued) **S113748475**

County Code:	10
Air Basin:	SJV
Facility ID:	194
Air District Name:	SJU
SIC Code:	139
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	47.420614793
Reactive Organic Gases Tons/Yr:	6.410798148
Carbon Monoxide Emissions Tons/Yr:	25.795373817
NOX - Oxides of Nitrogen Tons/Yr:	162.99234087
SOX - Oxides of Sulphur Tons/Yr:	0.11810658
Particulate Matter Tons/Yr:	1.4352337432
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.407045741

Year:	2012
County Code:	10
Air Basin:	SJV
Facility ID:	194
Air District Name:	SJU
SIC Code:	139
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	47.420614793
Reactive Organic Gases Tons/Yr:	6.410798148
Carbon Monoxide Emissions Tons/Yr:	25.795373817
NOX - Oxides of Nitrogen Tons/Yr:	162.99234087
SOX - Oxides of Sulphur Tons/Yr:	0.11810658
Particulate Matter Tons/Yr:	1.4352337432
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.407045741

B13 **WOOLF ENTERPRISES** **LUST** **U003788768**
North **17891 GALE** **CUPA Listings** **N/A**
> 1 **HURON, CA 93234**
1.486 mi.
7845 ft. **Site 5 of 5 in cluster B**

Relative:
Higher

Actual:
399 ft.

LUST:

Region:	STATE
Global Id:	T0601900634
Latitude:	36.179305
Longitude:	-120.1188
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/02/1998
Lead Agency:	FRESNO COUNTY
Case Worker:	STR
Local Agency:	FRESNO COUNTY
RB Case Number:	5T10000655
LOC Case Number:	FA0273340
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

WOOLF ENTERPRISES (Continued) **U003788768**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0601900634
Contact Type:	Regional Board Caseworker
Contact Name:	JEFFREY HANNEL
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5F)
Address:	1685 E STREET
City:	FRESNO
Email:	jhannel@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0601900634
Contact Type:	Local Agency Caseworker
Contact Name:	STEVEN T RHODES
Organization Name:	FRESNO COUNTY
Address:	1221 FULTON MALL, THIRD FLOOR
City:	FRESNO
Email:	srhodes@co.fresno.ca.us
Phone Number:	Not reported

Status History:

Global Id:	T0601900634
Status:	Completed - Case Closed
Status Date:	10/02/1998

Global Id:	T0601900634
Status:	Open - Case Begin Date
Status Date:	11/12/1997

Global Id:	T0601900634
Status:	Open - Site Assessment
Status Date:	01/14/1998

Regulatory Activities:

Global Id:	T0601900634
Action Type:	Other
Date:	01/14/1998
Action:	Leak Reported

Global Id:	T0601900634
Action Type:	Other
Date:	11/12/1997
Action:	Leak Discovery

Global Id:	T0601900634
Action Type:	Other
Date:	11/12/1997
Action:	Leak Stopped

LUST REG 5:

Region:	5
Status:	Case Closed
Case Number:	5T10000655

WOOLF ENTERPRISES (Continued) **U003788768**

Case Type: Soil only
Substance: GASOLINE
Staff Initials: JWH
Lead Agency: Local
Program: LUST
MTBE Code: N/A

CUPA FRESNO:
Facility ID: FA0273340
Cross Street: Not reported
APM Number: 07505014S
CERS Id: 10158005
SWIS Number: Not reported
GIS Latitude: 36.179306
GIS Longitude: -120.118805
Program Element: UST REMOVAL/CLOSURE W/1 TANK

Facility ID: FA0273340
Cross Street: Not reported
APM Number: 07505014S
CERS Id: 10158005
SWIS Number: Not reported
GIS Latitude: 36.179306
GIS Longitude: -120.118805
Program Element: FORMER CONTAMINATED SITE/NO FURTHER ACTION

14
SSW
> 1
1.498 mi.
7907 ft.

Relative:
Higher

Actual:
413 ft.

PG&E GATES SUBSTATION & MAINT HQ **CUPA Listings** **S104869494**
18336 W JAYNE AVE **N/A**
COALINGA, CA 93210

CUPA FRESNO:
Facility ID: FA0270175
Cross Street: TRINITY
APM Number: 075-060-18&45SU
CERS Id: 10137718
SWIS Number: Not reported
GIS Latitude: 36.140969
GIS Longitude: -120.127087
Program Element: AUTO REPAIR/MAINTENANCE MODEL PLAN

Facility ID: FA0270175
Cross Street: TRINITY
APM Number: 075-060-18&45SU
CERS Id: 10137718
SWIS Number: Not reported
GIS Latitude: 36.140969
GIS Longitude: -120.127087
Program Element: HAZARDOUS WASTE GENERATOR (SQG)

Facility ID: FA0270175
Cross Street: TRINITY
APM Number: 075-060-18&45SU
CERS Id: 10137718
SWIS Number: Not reported
GIS Latitude: 36.140969

PG&E GATES SUBSTATION & MAINT HQ (Continued) **S104869494**

GIS Longitude: -120.127087
Program Element: AST STORAGE CAPACITY 10,000 TO 99,999 GAL

C15 **PG&E HURON SOLAR STATION** **CUPA Listings** **S112165925**
NNE **17123 W GALE** **N/A**
> 1 **HURON, CA 93234**
1.553 mi.
8199 ft. **Site 1 of 2 in cluster C**

Relative:
Lower

Actual:
383 ft.

CUPA FRESNO:
Facility ID: FA0282781
Cross Street: Not reported
APM Number: 07505047U
CERS Id: 10158005
SWIS Number: Not reported
GIS Latitude: 36.177500
GIS Longitude: -120.108000
Program Element: SMALL HAZARDOUS MATERIALS HANDLER

C16 **PG&E GATES SOLAR STATION** **CUPA Listings** **S111828453**
NNE **17115 W GALE AVE** **NPDES** **N/A**
> 1 **HURON, CA 93234**
1.555 mi.
8213 ft. **Site 2 of 2 in cluster C**

Relative:
Lower

Actual:
383 ft.

CUPA FRESNO:
Facility ID: FA0283129
Cross Street: Not reported
APM Number: 07505047U
CERS Id: 10449841
SWIS Number: Not reported
GIS Latitude: 36.176200
GIS Longitude: -120.116100
Program Element: SMALL HAZARDOUS MATERIALS HANDLER

NPDES:
Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 5F
Regulatory Measure Id: 425361
Order No: Not reported
Regulatory Measure Type: Construction
Place Id: Not reported
WDID: 5F10C363589
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 10/27/2013
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
RECEIVED DATE: 5/3/2012

PG&E GATES SOLAR STATION (Continued) **S111828453**

PROCESSED DATE:	5/8/2012
STATUS CODE NAME:	Terminated
STATUS DATE:	10/30/2013
PLACE SIZE:	116.72
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Anthony Haroian
FACILITY CONTACT TITLE:	Project Manager
FACILITY CONTACT PHONE:	415-973-6099
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	AJH4@pge.com
OPERATOR NAME:	Pacific Gas and Electric Company
OPERATOR ADDRESS:	3401 Crow Canyon Road
OPERATOR CITY:	San Ramon
OPERATOR STATE:	California
OPERATOR ZIP:	94583
OPERATOR CONTACT NAME:	Jeff Smyly
OPERATOR CONTACT TITLE:	Water Quality Manager
OPERATOR CONTACT PHONE:	925-415-6385
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	j8s2@pge.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Pacific Gas and Electric Company
DEVELOPER ADDRESS:	77 Beale St
DEVELOPER CITY:	San Francisco
DEVELOPER STATE:	California
DEVELOPER ZIP:	San F
DEVELOPER CONTACT NAME:	Anthony Haroian
DEVELOPER CONTACT TITLE:	Project Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N
CONSTYPE COMMERTIAL IND:	N
CONSTYPE ELECTRICAL LINE IND:	N
CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	N
CONSTYPE UTILITY DESCRIPTION:	Solar site
CONSTYPE UTILITY IND:	Y
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Jeff Smyly
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	03-MAY-12
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

17
SSE
> 1
1.665 mi.
8793 ft.

STEVE MOORE FARMS — **CUPA Listings** — **S110274754**
S LASSEN & JAYNE, SW CORNER AVE — **N/A**
HURON, CA 93234

Relative:
Lower

Actual:
378 ft.

CUPA FRESNO:

Facility ID:	FA0281465
Cross Street:	JAYNE
APM Number:	08505084
CERS Id:	10703242
SWIS Number:	Not reported
GIS Latitude:	36.137500
GIS Longitude:	-120.103400
Program Element:	HAZARDOUS MATERIALS HANDLER FARM EXEMPTION

Facility ID:	FA0281465
Cross Street:	JAYNE
APM Number:	08505084
CERS Id:	10703242
SWIS Number:	Not reported
GIS Latitude:	36.137500
GIS Longitude:	-120.103400
Program Element:	CALARP PROCESS - PROGRAM LEVEL 2

18
SSW
> 1
1.672 mi.
8828 ft.

WESTLANDS SOLAR FARMS — **CUPA Listings** — **S113882040**
18393 W JAYNE AVENUE — **NPDES** — **N/A**
HURON, CA 93236

Relative:
Higher

Actual:
413 ft.

CUPA FRESNO:

Facility ID:	FA0283656
Cross Street:	Not reported
APM Number:	08504021S
CERS Id:	10488355
SWIS Number:	Not reported
GIS Latitude:	36.128100
GIS Longitude:	-120.142300
Program Element:	MV FUEL/OIL/PROPANE ONLY IN AGST/UST MODEL PL

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	0
Region:	5F
Regulatory Measure Id:	438858
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	5F10C367127
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/17/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	02/26/2014
Discharge Name:	Westlands Solar Farms LLC
Discharge Address:	18393 W Jayne Avenue
Discharge City:	Huron

WESTLANDS SOLAR FARMS (Continued) **S113882040**

Discharge State:	California
Discharge Zip:	93236
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported

WESTLANDS SOLAR FARMS (Continued) **S113882040**

TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	5F
Regulatory Measure Id:	438858
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	5F10C367127
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	2/26/2014
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	7/9/2013
PROCESSED DATE:	7/17/2013
STATUS CODE NAME:	Terminated
STATUS DATE:	3/3/2014
PLACE SIZE:	156.36
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Erich Mettler
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	212-478-0233
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Erich.Mettler@deshaw.com
OPERATOR NAME:	Westlands Solar Farms LLC
OPERATOR ADDRESS:	18393 W Jayne Avenue
OPERATOR CITY:	Huron
OPERATOR STATE:	California
OPERATOR ZIP:	93236
OPERATOR CONTACT NAME:	Erich Mettler
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	212-478-0233
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Erich.Mettler@deshaw.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Westlands Solar Farms LLC
DEVELOPER ADDRESS:	18393 W Jayne Avenue
DEVELOPER CITY:	Huron
DEVELOPER STATE:	California
DEVELOPER ZIP:	93236
DEVELOPER CONTACT NAME:	Erich Mettler
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N

WESTLANDS SOLAR FARMS (Continued) **S113882040**

CONSTYPE COMMERTIAL IND:	N
CONSTYPE ELECTRICAL LINE IND:	N
CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	N
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Y
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Erich Mettler
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	09-JUL-13
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

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19 **SALYER AMERICAN COOLING** **CUPA Listings** **S104869492**
SSE **16980 JAYNE AVE** **N/A**
> 1 **HURON, CA 93234**
1.690 mi.
8921 ft.

Relative:
Lower

Actual:
375 ft.

CUPA FRESNO:

Facility ID:	FA0270198
Cross Street:	Not reported
APM Number:	07507051S
CERS Id:	10691479
SWIS Number:	Not reported
GIS Latitude:	36.138700
GIS Longitude:	-120.101500
Program Element:	HAZ MAT DISCLOSURE/CLOSED SITE

Facility ID:	FA0270198
Cross Street:	Not reported
APM Number:	07507051S
CERS Id:	10691479
SWIS Number:	Not reported
GIS Latitude:	36.138700
GIS Longitude:	-120.101500
Program Element:	HAZARDOUS WASTE GENERATOR (SQG)

D20 **PG&E: GATES SUBSTATION** **AST** **A100423362**
SSW **18336 WEST JAYNE AVENUE** **N/A**
> 1 **HURON, CA 93234**
1.713 mi.
9047 ft. **Site 1 of 2 in cluster D**

Relative:
Higher

Actual:
416 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Pacific Gas and Electric Company
Total Gallons:	Not reported

PG&E: GATES SUBSTATION (Continued) **A100423362**

CERSID:	10137718
Facility ID:	FA0270175
Business Name:	PG&E
Phone:	(559) 945-2745
Fax:	(559) 945-2964
Mailing Address:	PO Box 7640
Mailing Address City:	San Francisco
Mailing Address State:	CA
Mailing Address Zip Code:	94120
Operator Name:	Pacific Gas and Electric Company
Operator Phone:	(559) 487-1937
Owner Phone:	(415) 973-7000
Owner Mail Address:	c/o Environmental Services, 3401 Crow Canyon Road
Owner State:	CA
Owner Zip Code:	94583
Owner Country:	United States
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:	CAD980885966

D21 **LEVEL 3 COMMUNICATIONS LLC** **CUPA Listings** **S107622448**
SSW **18364 W JAYNE** **EMI** **N/A**
> 1 **HURON, CA 92105**
1.725 mi.
9108 ft. **Site 2 of 2 in cluster D**

Relative:
Higher

Actual:
416 ft.

CUPA FRESNO:

Facility ID:	FA0278134
Cross Street:	Not reported
APM Number:	07506018SU
CERS Id:	10669456
SWIS Number:	Not reported
GIS Latitude:	36.139080
GIS Longitude:	-120.127172
Program Element:	EXTREMELY HAZARDOUS SUBSTANCE HANDLER (EPCRA)

Facility ID:	FA0283130
Cross Street:	Not reported
APM Number:	07506045SU
CERS Id:	10449898
SWIS Number:	Not reported
GIS Latitude:	36.138800
GIS Longitude:	-120.132700
Program Element:	SMALL HAZARDOUS MATERIALS HANDLER

EMI:

Year:	2004
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813

LEVEL 3 COMMUNICATIONS LLC (Continued) **S107622448**

Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.001059424
Reactive Organic Gases Tons/Yr:	0.00088642
Carbon Monoxide Emissions Tons/Yr:	0.00092086
NOX - Oxides of Nitrogen Tons/Yr:	0.021785761
SOX - Oxides of Sulphur Tons/Yr:	0.00058302
Particulate Matter Tons/Yr:	0.001397193
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00136366

Year:	2005
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0010594239565966248
Reactive Organic Gases Tons/Yr:	.000886420024484396
Carbon Monoxide Emissions Tons/Yr:	.000920860025435686
NOX - Oxides of Nitrogen Tons/Yr:	.021785760601759
SOX - Oxides of Sulphur Tons/Yr:	.000583020016103983
Particulate Matter Tons/Yr:	.0013971926615436065
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.00136366003766656

Year:	2006
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0008397872286685215
Reactive Organic Gases Tons/Yr:	.000702649974226952
Carbon Monoxide Emissions Tons/Yr:	.000729949973225594
NOX - Oxides of Nitrogen Tons/Yr:	.0172691993665695
SOX - Oxides of Sulphur Tons/Yr:	.000462149983048439
Particulate Matter Tons/Yr:	.0011075306970809323
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.00108094996035099

Year:	2007
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001134875560745025
Reactive Organic Gases Tons/Yr:	.0000949550381675363
Carbon Monoxide Emissions Tons/Yr:	.0000986443180963397

LEVEL 3 COMMUNICATIONS LLC (Continued) **S107622448**

NOX - Oxides of Nitrogen Tons/Yr:	.00233373307496309
SOX - Oxides of Sulphur Tons/Yr:	.0000018622079640626
Particulate Matter Tons/Yr:	.0001496699971116342
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.00014607791718095 5

Year:	2008
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001891459267908378
Reactive Organic Gases Tons/Yr:	.000158258396945894
Carbon Monoxide Emissions Tons/Yr:	.000164407196827233
NOX - Oxides of Nitrogen Tons/Yr:	.00388955512493849
SOX - Oxides of Sulphur Tons/Yr:	.0000031036799401044
Particulate Matter Tons/Yr:	.0002494499951860573
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000243463195301592

Year:	2009
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.2674256714210702E-3
Reactive Organic Gases Tons/Yr:	0.00189715505927801
Carbon Monoxide Emissions Tons/Yr:	0.00197086506158113
NOX - Oxides of Nitrogen Tons/Yr:	4.6626841456890097E-2
SOX - Oxides of Sulphur Tons/Yr:	3.7206001162528999E-5
Particulate Matter Tons/Yr:	0.00299033308523844
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.9185650911927202E-3

Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.2708258635114101E-3
Reactive Organic Gases Tons/Yr:	0.0019
Carbon Monoxide Emissions Tons/Yr:	0.00197
NOX - Oxides of Nitrogen Tons/Yr:	4.6600000000000003E-2
SOX - Oxides of Sulphur Tons/Yr:	3.7200000000000003E-5
Particulate Matter Tons/Yr:	2.9918032786885201E-3
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.9199999999999999E-3

Year: 2011

LEVEL 3 COMMUNICATIONS LLC (Continued) **S107622448**

County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00018914592679
Reactive Organic Gases Tons/Yr:	0.00015825839695
Carbon Monoxide Emissions Tons/Yr:	0.00016440719683
NOX - Oxides of Nitrogen Tons/Yr:	0.0038895551249
SOX - Oxides of Sulphur Tons/Yr:	3.1036799401e-006
Particulate Matter Tons/Yr:	0.00024944999519
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.0002434631953

Year:	2012
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00018914592679
Reactive Organic Gases Tons/Yr:	0.00015825839695
Carbon Monoxide Emissions Tons/Yr:	0.00016440719683
NOX - Oxides of Nitrogen Tons/Yr:	0.0038895551249
SOX - Oxides of Sulphur Tons/Yr:	3.1036799401e-006
Particulate Matter Tons/Yr:	0.00024944999519
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.0002434631953

Year:	2013
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00024018212863
Reactive Organic Gases Tons/Yr:	0.000211
Carbon Monoxide Emissions Tons/Yr:	0.000219
NOX - Oxides of Nitrogen Tons/Yr:	0.00519
SOX - Oxides of Sulphur Tons/Yr:	4.14e-006
Particulate Matter Tons/Yr:	0.00033299180328
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000325

Year:	2014
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY APCD

LEVEL 3 COMMUNICATIONS LLC (Continued) **S107622448**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6.0048718249e-005
Reactive Organic Gases Tons/Yr:	5.2752798982e-005
Carbon Monoxide Emissions Tons/Yr:	5.4802398942e-005
NOX - Oxides of Nitrogen Tons/Yr:	0.001296518375
SOX - Oxides of Sulphur Tons/Yr:	1.03455998e-006
Particulate Matter Tons/Yr:	8.3149998395e-005
Part. Matter 10 Micrometers and Smllr Tons/Yr:	8.1154398434e-005

Year:	2015
County Code:	10
Air Basin:	SJV
Facility ID:	3805
Air District Name:	SJU
SIC Code:	4813
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.0005828116107
Reactive Organic Gases Tons/Yr:	0.000512
Carbon Monoxide Emissions Tons/Yr:	0.000531
NOX - Oxides of Nitrogen Tons/Yr:	0.01258
SOX - Oxides of Sulphur Tons/Yr:	1.004e-005
Particulate Matter Tons/Yr:	0.00080737704918
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.000788

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FRESNO COUNTY	S107538437		ELKHORN AVE/2 MI E OF LASSEN A		CDL
HURON	S107539163		LASSEN AVE, 2 MI N OF HIGHWAY	93234	CDL
HURON	1003878001	GIFFEN DUMP SITE	3/4 MI N DORRIS 3 MI W LASSEN	93234	SEMS-ARCHIVE

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

Federal NPL site list

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: 05/30/2017
Date Data Arrived at EDR: 06/08/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 99

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
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: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

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: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

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: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
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: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

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: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

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: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

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: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - 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). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

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: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
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: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

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: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

State- and tribal - equivalent NPL

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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

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: 08/14/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 35

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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: 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: 06/12/2017
Date Data Arrived at EDR: 06/14/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

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 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 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 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 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 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: Quarterly

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

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
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: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

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: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

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: 06/12/2017
Date Data Arrived at EDR: 06/14/2017
Date Made Active in Reports: 08/23/2017
Number of Days to Update: 70
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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: Quarterly

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: Semi-Annually

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: Varies

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: Semi-Annually

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: Semi-Annually

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: Semi-Annually

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: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/12/2017
Date Data Arrived at EDR: 06/14/2017
Date Made Active in Reports: 08/23/2017
Number of Days to Update: 70
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

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: 01/14/2017
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
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: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
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: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

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: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
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: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

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: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

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: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Quarterly

State and tribal Brownfields 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: 06/27/2017
Date Data Arrived at EDR: 06/28/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 85
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

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: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/20/2017
Next Scheduled EDR Contact: 01/01/2018
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: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/11/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 9
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 05/31/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 76

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
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: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
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: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
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: 08/29/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

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: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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: 07/31/2017
Date Data Arrived at EDR: 08/01/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
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: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/14/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Varies

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: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 80

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Annually

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

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
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: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/26/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

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: 06/05/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/10/2017
Number of Days to Update: 65

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

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: 05/09/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 57

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/26/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

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: 06/12/2017
Date Data Arrived at EDR: 06/14/2017
Date Made Active in Reports: 08/18/2017
Number of Days to Update: 65

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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: 06/12/2017
Date Data Arrived at EDR: 06/14/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

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: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/25/2017
Next Scheduled EDR Contact: 12/04/2017
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: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

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: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
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: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
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: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
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: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 11/20/2017
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: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
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: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2017
Next Scheduled EDR Contact: 12/04/2017
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: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
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: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
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: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
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: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 11/20/2017
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: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
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: 07/28/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
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: Quarterly

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: Quarterly

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: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/20/2017
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: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 12/18/2017
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: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
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: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/28/2017
Next Scheduled EDR Contact: 11/08/2017
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: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/16/2017
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: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/01/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
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: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/04/2017
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: 07/11/2017
Next Scheduled EDR Contact: 10/23/2017
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: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
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: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/16/2017
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

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: 02/08/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 38

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
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: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
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: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
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: 03/14/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 21

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
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: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/19/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/11/2017
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: 08/17/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 29

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
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: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

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: 03/09/2017
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 42

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
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: 05/01/2017
Date Data Arrived at EDR: 05/03/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 104

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 06/05/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 67

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 10/30/2017
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: 05/16/2017
Date Data Arrived at EDR: 05/19/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 88

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 05/24/2017
Date Made Active in Reports: 08/18/2017
Number of Days to Update: 86

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
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: 05/22/2017
Date Data Arrived at EDR: 05/24/2017
Date Made Active in Reports: 08/18/2017
Number of Days to Update: 86
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/22/2017
Next Scheduled EDR Contact: 12/04/2017
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: 04/11/2017
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 04/26/2017
Number of Days to Update: 13
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/12/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Varies

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: 05/25/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/23/2017
Number of Days to Update: 78
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/17/2017
Next Scheduled EDR Contact: 11/27/2017
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: 06/05/2017
Date Data Arrived at EDR: 06/07/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 79
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 01/20/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
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 board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/14/2017
Next Scheduled EDR Contact: 10/23/2017
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: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

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: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Historic Gas 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 Historic Dry 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

COUNTY RECORDS

ALAMEDA COUNTY:

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: 04/10/2017
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 31

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/07/2017
Date Data Arrived at EDR: 07/11/2017
Date Made Active in Reports: 08/23/2017
Number of Days to Update: 43

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 06/20/2017
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 49

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

BUTTE COUNTY:

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: 09/18/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 04/27/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 104

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/05/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/23/2017
Date Data Arrived at EDR: 02/24/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 77

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 58

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/31/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 05/04/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 92

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 50

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/31/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

FRESNO COUNTY:

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: 06/30/2017
Date Data Arrived at EDR: 07/05/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 30

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 111

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/20/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 57

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 101

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 44

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

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: 03/06/2017
Date Data Arrived at EDR: 03/07/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 71

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/09/2017
Date Data Arrived at EDR: 05/11/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 90

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/13/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 101

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/18/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/18/2017
Number of Days to Update: 115
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/17/2017
Date Data Arrived at EDR: 07/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 65
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/18/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/13/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/17/2017
Date Data Arrived at EDR: 01/18/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 112
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/13/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/14/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 69

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/07/2017
Next Scheduled EDR Contact: 10/23/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

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: 06/01/2017
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 63

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 07/03/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 15

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/22/2017
Date Data Arrived at EDR: 02/23/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2017
Date Data Arrived at EDR: 03/02/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 76

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/08/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/22/2017
Date Data Arrived at EDR: 06/23/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 47
Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

NAPA COUNTY:

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: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 05/31/2017
Date Data Arrived at EDR: 06/01/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 85
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/08/2017
Date Data Arrived at EDR: 05/09/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 92
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/03/2017
Date Data Arrived at EDR: 05/11/2017
Date Made Active in Reports: 08/18/2017
Number of Days to Update: 99
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/11/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 41
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/09/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 43
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/09/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 77
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 07/05/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 35
Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/14/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 69
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/11/2017
Date Data Arrived at EDR: 07/14/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 69
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/18/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/06/2017
Date Data Arrived at EDR: 04/04/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 127

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

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: 05/03/2017
Date Data Arrived at EDR: 07/06/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 47

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/30/2016
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 105

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

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: 05/30/2017
Date Data Arrived at EDR: 06/01/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 85

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 06/05/2017
Date Data Arrived at EDR: 06/07/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 69

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

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: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

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: 08/07/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/03/2017
Date Data Arrived at EDR: 05/08/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 109
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/21/2017
Date Data Arrived at EDR: 03/23/2017
Date Made Active in Reports: 05/09/2017
Number of Days to Update: 47
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 08/28/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/05/2017
Date Data Arrived at EDR: 06/16/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 54
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/15/2017
Date Data Arrived at EDR: 04/07/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 33
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 64
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/07/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

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: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/22/2017
Date Data Arrived at EDR: 02/23/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 89
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/07/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

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

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: 08/24/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/04/2017
Date Data Arrived at EDR: 05/08/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 80

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

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: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

SHASTA COUNTY:

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: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 63

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 08/29/2017
Number of Days to Update: 69

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 06/27/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 43

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/05/2017
Date Data Arrived at EDR: 07/06/2017
Date Made Active in Reports: 08/22/2017
Number of Days to Update: 47

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/10/2017
Date Data Arrived at EDR: 05/16/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 85

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2017
Date Data Arrived at EDR: 06/06/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 80

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List
Cupa facilities

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 05/08/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 93

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/21/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 01/05/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 104

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 11/20/2017
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 04/27/2017
Date Data Arrived at EDR: 04/27/2017
Date Made Active in Reports: 08/10/2017
Number of Days to Update: 105

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Varies

VENTURA COUNTY:

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: 12/27/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 103

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

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: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Annually

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: 08/10/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 89

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/24/2017
Next Scheduled EDR Contact: 11/08/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/28/2017
Date Data Arrived at EDR: 09/12/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 9
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/12/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/29/2017
Date Data Arrived at EDR: 07/05/2017
Date Made Active in Reports: 08/25/2017
Number of Days to Update: 51
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/27/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/27/2017
Next Scheduled EDR Contact: 11/13/2017
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: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/10/2017
Next Scheduled EDR Contact: 10/23/2017
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: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/03/2017
Next Scheduled EDR Contact: 11/13/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/17/2017
Next Scheduled EDR Contact: 10/30/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

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 PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

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 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FIFTH STANDARD PROPERTY
FIFTH STANDARD PROPERTY
HURON, CA 93234

TARGET PROPERTY COORDINATES

Latitude (North):	36.160002 - 36° 9' 36.01''
Longitude (West):	120.1142 - 120° 6' 51.12''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	759603.7
UTM Y (Meters):	4005353.8
Elevation:	393 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602496 HURON, CA
Version Date:	2012
Southeast Map:	5602942 LA CIMA, CA
Version Date:	2012
Southwest Map:	5602454 AVENAL, CA
Version Date:	2012
Northwest Map:	5602484 GUIJARRAL HILLS, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

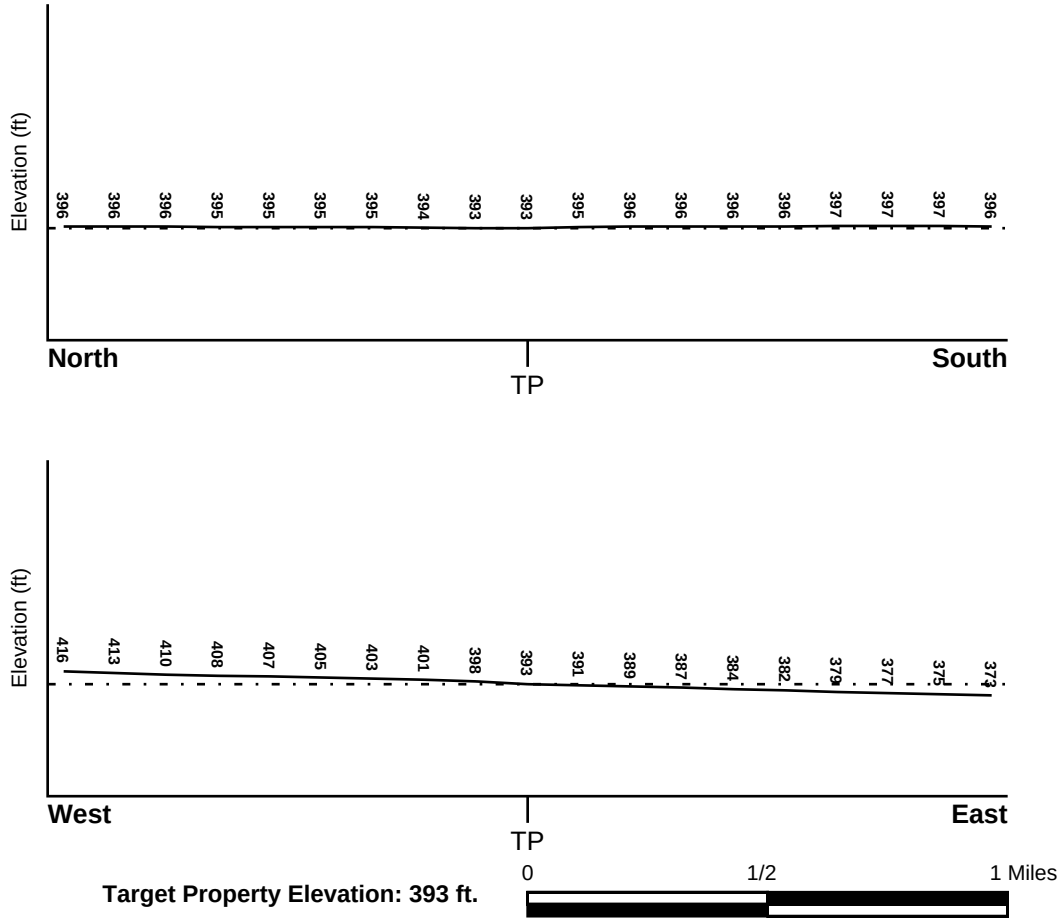
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06019C3275H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06019C3250H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HURON	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

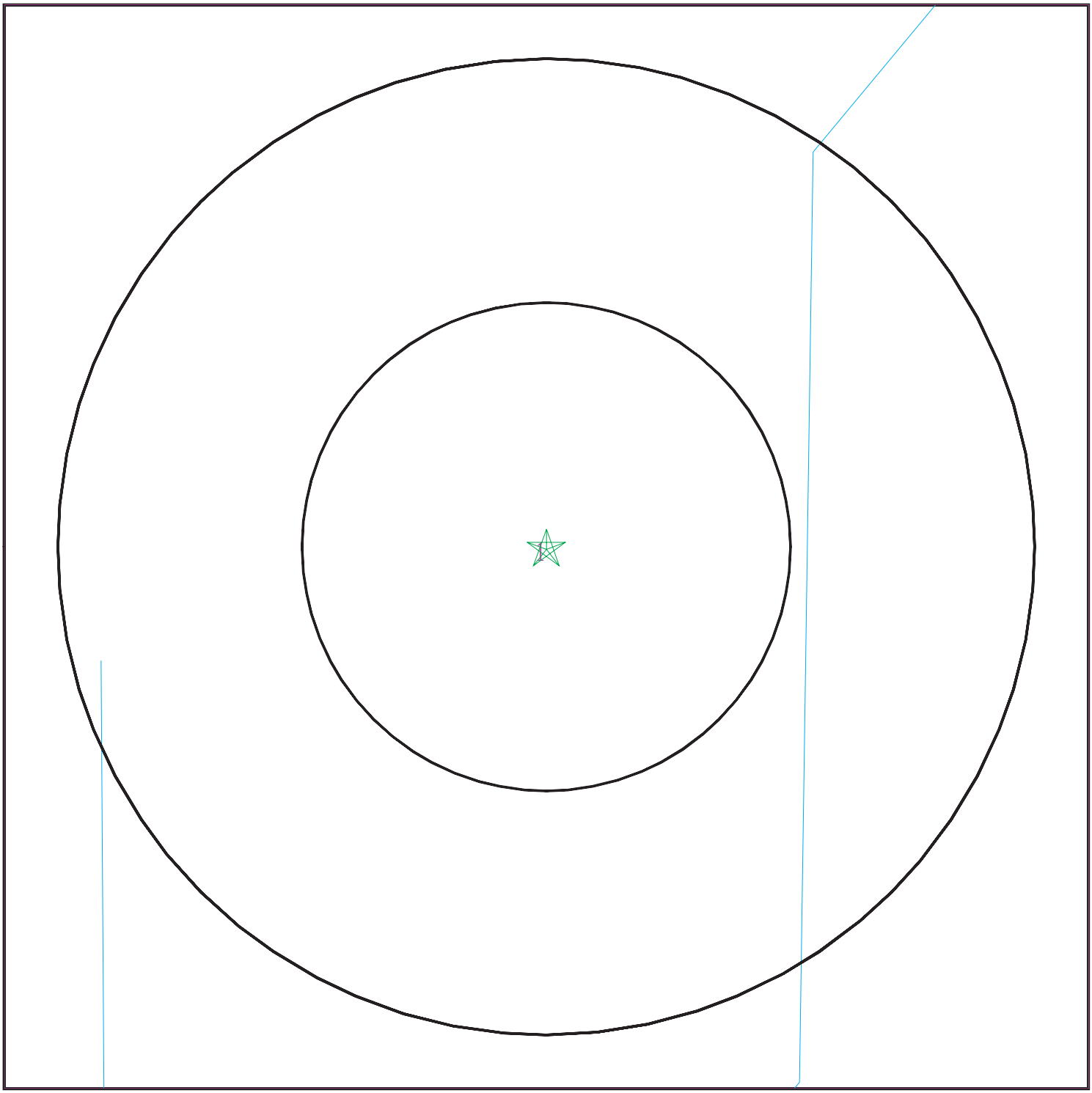
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5068323.2s



SITE NAME:	Fifth Standard Property	CLIENT:	Stantec
ADDRESS:	Fifth Standard Property Huron CA 93234	CONTACT:	Corinne Ackerman
		INQUIRY #:	5068323.2s
LAT/LONG:	36.160002 / 120.1142	DATE:	October 04, 2017 5:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: WESTHAVEN

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	7 inches	16 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 7.4
3	16 inches	42 inches	stratified loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	64 inches	72 inches	stratified loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
5	42 inches	64 inches	stratified loamy sand to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	2.500
Federal FRDS PWS	Nearest PWS within 1.500 miles
State Database	2.500

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000170376	1/4 - 1/2 Mile West
B5	USGS40000170435	1/4 - 1/2 Mile NNE
C7	USGS40000170329	1/2 - 1 Mile South
D10	USGS40000170375	1/2 - 1 Mile East
E11	USGS40000170310	1/2 - 1 Mile SSW
12	USGS40000170434	1/2 - 1 Mile NE
F14	USGS40000170483	1/2 - 1 Mile NNW
G17	USGS40000170328	1/2 - 1 Mile SE
19	USGS40000170296	1/2 - 1 Mile SSE
H21	USGS40000170436	1/2 - 1 Mile WNW
I22	USGS40000170287	1/2 - 1 Mile South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
I25	USGS40000170286	1/2 - 1 Mile South
J28	USGS40000170429	1 - 2 Miles ENE
K32	USGS40000170276	1 - 2 Miles SSW
L33	USGS40000170407	1 - 2 Miles ENE
37	USGS40000170548	1 - 2 Miles NNW
M41	USGS40000170384	1 - 2 Miles West
N43	USGS40000170545	1 - 2 Miles NNE
O46	USGS40000170547	1 - 2 Miles NNE
48	USGS40000170267	1 - 2 Miles SSE
P49	USGS40000170433	1 - 2 Miles ENE
Q50	USGS40000170564	1 - 2 Miles NNW
R53	USGS40000170264	1 - 2 Miles SSW
R54	USGS40000170265	1 - 2 Miles SSW
57	USGS40000170402	1 - 2 Miles East
T58	USGS40000170496	1 - 2 Miles WNW
S60	USGS40000170383	1 - 2 Miles East
U61	USGS40000170576	1 - 2 Miles NNE
V64	USGS40000170235	1 - 2 Miles SSE
65	USGS40000170432	1 - 2 Miles ENE
U68	USGS40000170592	1 - 2 Miles NNE
U69	USGS40000170593	1 - 2 Miles NNE
W71	USGS40000170517	1 - 2 Miles NW
X72	USGS40000170281	1 - 2 Miles SW
76	USGS40000170486	1 - 2 Miles ENE
Z77	USGS40000170225	1 - 2 Miles SSE
Y78	USGS40000170321	1 - 2 Miles ESE
AA81	USGS40000170502	1 - 2 Miles ENE
AB84	USGS40000170575	1 - 2 Miles NE
AC86	USGS40000170456	1 - 2 Miles WNW
AD88	USGS40000170280	1 - 2 Miles ESE
AF93	USGS40000170606	1 - 2 Miles NNE
AE94	USGS40000170209	1 - 2 Miles SE
AG95	USGS40000170574	1 - 2 Miles NE
AH98	USGS40000170177	1 - 2 Miles SSE
AI102	USGS40000170236	2 - 3 Miles SW
AI103	USGS40000170251	2 - 3 Miles SW
AJ105	USGS40000170620	2 - 3 Miles NNE
106	USGS40000170327	2 - 3 Miles ESE
AK110	USGS40000170634	2 - 3 Miles NNW
AL115	USGS40000170577	2 - 3 Miles NW
AM117	USGS40000170165	2 - 3 Miles SSW
AP121	USGS40000170182	2 - 3 Miles SW
AN122	USGS40000170326	2 - 3 Miles ESE
AO123	USGS40000170282	2 - 3 Miles WSW
AQ126	USGS40000170357	2 - 3 Miles West
AR128	USGS40000170385	2 - 3 Miles West
AS130	USGS40000170237	2 - 3 Miles SW
AT132	USGS40000170336	2 - 3 Miles WSW
134	USGS40000170462	2 - 3 Miles WNW
AU136	USGS40000170325	2 - 3 Miles ESE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADW60000005056	1/8 - 1/4 Mile ESE
A3	CADW60000006980	1/4 - 1/2 Mile West
B4	CADW60000016558	1/4 - 1/2 Mile NNE
C6	CADW60000000252	1/2 - 1 Mile South
D8	CADW60000005544	1/2 - 1 Mile East
D9	CADW60000006978	1/2 - 1 Mile East
E13	CADW60000016449	1/2 - 1 Mile SSW
F15	CADW60000006973	1/2 - 1 Mile NNW
G16	CADW60000009704	1/2 - 1 Mile SE
G18	CADW60000004839	1/2 - 1 Mile SE
H20	CADW60000016559	1/2 - 1 Mile WNW
I23	CADW60000009703	1/2 - 1 Mile South
I24	CADW60000004836	1/2 - 1 Mile South
26	CADW60000004837	1 - 2 Miles South
J27	CADW60000016556	1 - 2 Miles ENE
29	CADW60000003780	1 - 2 Miles NNW
K30	CADW60000009702	1 - 2 Miles SSW
K31	CADW60000004838	1 - 2 Miles SSW
L34	CADW60000006977	1 - 2 Miles ENE
L35	CADW60000006976	1 - 2 Miles ENE
36	CADW60000009924	1 - 2 Miles ESE
38	CADW60000006979	1 - 2 Miles WNW
M39	CADW60000016560	1 - 2 Miles West
N40	CADW60000016552	1 - 2 Miles NNE
42	CADW60000016555	1 - 2 Miles ENE
44	CADW60000004000	1 - 2 Miles West
45	CADW60000014389	1 - 2 Miles NNW
O47	CADW60000006974	1 - 2 Miles NNE
Q51	CADW60000016551	1 - 2 Miles NNW
52	CADW60000006797	1 - 2 Miles North
P55	CADW60000016554	1 - 2 Miles ENE
S56	CADW60000016557	1 - 2 Miles East
T59	CADW60000006804	1 - 2 Miles WNW
U62	CADW60000012649	1 - 2 Miles NNE
V63	CADW60000009705	1 - 2 Miles SSE
W66	CADW60000006803	1 - 2 Miles NW
U67	CADW60000012650	1 - 2 Miles NNE
W70	CADW60000016550	1 - 2 Miles NW
Y73	CADW60000005055	1 - 2 Miles ESE
X74	CADW60000004834	1 - 2 Miles SW
Y75	CADW60000009706	1 - 2 Miles ESE
Z79	CADW60000011765	1 - 2 Miles SSE
AA80	CADW60000016553	1 - 2 Miles ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

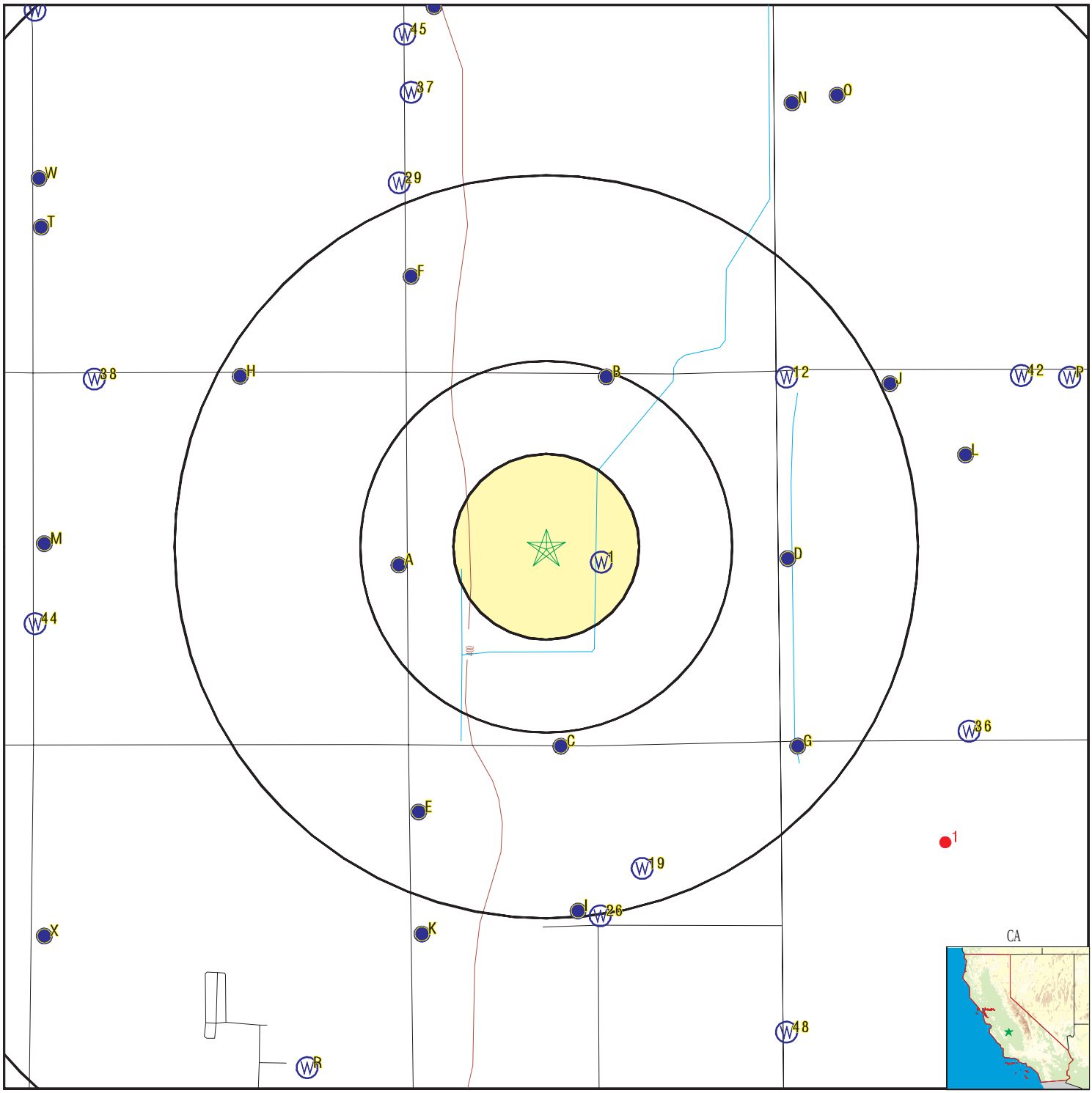
MAP ID	WELL ID	LOCATION FROM TP
82	CADW60000016491	1 - 2 Miles ENE
AB83	CADW60000016538	1 - 2 Miles NE
85	CADW60000036104	1 - 2 Miles NNE
AC87	CADW60000016548	1 - 2 Miles WNW
AC89	CADW60000004609	1 - 2 Miles WNW
AD90	CADW60000004842	1 - 2 Miles ESE
AD91	CADW60000009923	1 - 2 Miles ESE
AE92	CADW60000011764	1 - 2 Miles SE
AH96	CADW60000009465	1 - 2 Miles SSE
AF97	CADW60000006796	1 - 2 Miles NNE
99	CADW60000016549	1 - 2 Miles NW
AG100	CADW60000016539	2 - 3 Miles NE
AI101	CADW60000004835	2 - 3 Miles SW
AJ104	CADW60000012648	2 - 3 Miles NNE
AK107	CADW60000016541	2 - 3 Miles NNW
AI108	CADW60000004833	2 - 3 Miles SW
AK109	CADW60000000995	2 - 3 Miles North
111	CADW60000000997	2 - 3 Miles WNW
112	CADW60000006975	2 - 3 Miles East
AL113	CADW60000016543	2 - 3 Miles NW
AM114	CADW60000011767	2 - 3 Miles SSW
116	CADW60000016540	2 - 3 Miles NE
AN118	CADW60000004841	2 - 3 Miles ESE
AO119	CADW60000004832	2 - 3 Miles WSW
AP120	CADW60000009620	2 - 3 Miles SW
124	CADW60000010304	2 - 3 Miles NNE
125	CADW60000001014	2 - 3 Miles SE
AQ127	CADW60000004610	2 - 3 Miles West
AR129	CADW60000016371	2 - 3 Miles West
AS131	CADW60000014390	2 - 3 Miles SW
AT133	CADW60000006981	2 - 3 Miles WSW
135	CADW60000005246	2 - 3 Miles West
AU137	CADW60000004840	2 - 3 Miles ESE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000269947	1 - 2 Miles SE

PHYSICAL SETTING SOURCE MAP - 5068323.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Fifth Standard Property	CLIENT:	Stantec
ADDRESS:	Fifth Standard Property Huron CA 93234	CONTACT:	Corinne Ackerman
		INQUIRY #:	5068323.2s
LAT/LONG:	36.160002 / 120.1142	DATE:	October 04, 2017 5:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
ESE
1/8 - 1/4 Mile
Lower

CA WELLS **CADW60000005056**

Objectid:	5056
Latitude:	36.1594
Longitude:	-120.11155
Site code:	361594N1201116W001
State well numbe:	20S17E27K001M
Local well name:	'20S/17E-27K01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000005056

A2
West
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000170376**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360934120071301		
Monloc name:	020S017E28J001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.159398
Longitude:	-120.121251	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	402.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19640101	Welldepth:	2023
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-12-01	493.00	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A3
West
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000006980**

Objectid:	6980
Latitude:	36.159192
Longitude:	-120.121317
Site code:	361589N1201210W001
State well numbe:	20S17E28J001M
Local well name:	'20S/17E-28J01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006980

B4
NNE
1/4 - 1/2 Mile
Lower

CA WELLS **CADW60000016558**

Objectid:	16558
Latitude:	36.16665
Longitude:	-120.111367
Site code:	361667N1201110W001
State well numbe:	20S17E27B001M
Local well name:	'20S/17E-27B01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016558

B5
NNE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000170435**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361000120063701		
Monloc name:	020S017E27B001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1666201
Longitude:	-120.1112509	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	388.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19630101	Welldepth:	2041
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-12-01	444.00	

C6
South
1/2 - 1 Mile
Higher

CA WELLS **CADW60000000252**

Objectid:	252
Latitude:	36.152275
Longitude:	-120.113517
Site code:	361522N1201132W001
State well numbe:	20S17E34C001M
Local well name:	'20S/17E-34C01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000000252

C7
South
1/2 - 1 Mile
Higher

FED USGS **USGS40000170329**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360908120064501		
Monloc name:	020S017E34C001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1521758
Longitude:	-120.113473	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	393.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19650101	Welldepth:	1786
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D8
East
1/2 - 1 Mile
Lower

CA WELLS **CADW60000005544**

Objectid:	5544
Latitude:	36.159833
Longitude:	-120.102683
Site code:	361598N1201027W001
State well numbe:	20S17E26E001M
Local well name:	'20S/17E-26E01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000005544

D9
East
1/2 - 1 Mile
Lower

CA WELLS **CADW60000006978**

Objectid:	6978
Latitude:	36.1594
Longitude:	-120.1027
Site code:	361594N1201027W001
State well numbe:	20S17E26M001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006978

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D10
East
1/2 - 1 Mile
Lower

FED USGS **USGS40000170375**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360934120060501		
Monloc name:	020S017E26M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1593979
Longitude:	-120.1023616	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	377.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19570101	Welldepth:	2107
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1959-05-01	487.00	

E11
SSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000170310**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360859120070901		
Monloc name:	020S017E34D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1496759
Longitude:	-120.1201398	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	404.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

12
NE **FED USGS** **USGS40000170434**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361000120060601		
Monloc name:	020S017E26D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.16662
Longitude:	-120.1026395	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	328.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1939
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

E13
SSW **CA WELLS** **CADW60000016449**
1/2 - 1 Mile
Higher

Objectid:	16449
Latitude:	36.149642
Longitude:	-120.120525
Site code:	361522N1201171W001
State well numbe:	20S17E34D001M
Local well name:	'20S/17E-34D01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016449

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F14
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000170483**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361014120071101		
Monloc name:	020S017E22N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1705089
Longitude:	-120.1206957	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	400.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19580101	Welldepth:	2358
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	502.00	

F15
NNW
1/2 - 1 Mile
Higher

CA WELLS **CADW60000006973**

Objectid:	6973
Latitude:	36.1706
Longitude:	-120.1207
Site code:	361706N1201207W001
State well numbe:	20S17E22N001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006973

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G16
SE
1/2 - 1 Mile
Lower

CA WELLS **CADW60000009704**

Objectid:	9704
Latitude:	36.1522
Longitude:	-120.1024
Site code:	361522N1201024W001
State well numbe:	20S17E35D001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009704

G17
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000170328**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360908120060501		
Monloc name:	020S017E35D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1521757
Longitude:	-120.1023615	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	379.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19450101	Welldepth:	2014
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1950-05-01	359.00	

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G18
SE
1/2 - 1 Mile
Lower

CA WELLS **CADW60000004839**

Objectid:	4839
Latitude:	36.152308
Longitude:	-120.101542
Site code:	361522N1201021W001
State well numbe:	20S17E35D002M
Local well name:	'20S/17E-35D02'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004839

19
SSE
1/2 - 1 Mile
Lower

FED USGS **USGS40000170296**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360851120063102		
Monloc name:	020S017E34F004M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1474536
Longitude:	-120.1095839	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	387.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2000
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

H20
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADW60000016559**

Objectid:	16559
Latitude:	36.1667
Longitude:	-120.1288
Site code:	361667N1201288W001
State well numbe:	20S17E28B001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016559

H21
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000170436**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361000120074101		
Monloc name:	020S017E28B001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1666201
Longitude:	-120.1290292	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	409.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19600101	Welldepth:	2140
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	495.00	

I22
South
1/2 - 1 Mile
Higher

FED USGS **USGS40000170287**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360845120064401		
Monloc name:	020S017E34F001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.145787
Longitude:	-120.1131951	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	393.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	3000
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

I23
South
1/2 - 1 Mile
Higher

CA WELLS **CADW60000009703**

Objectid:	9703
Latitude:	36.1458
Longitude:	-120.1127
Site code:	361458N1201127W001
State well numbe:	20S17E34F005M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009703

I24
South
1/2 - 1 Mile
Higher

CA WELLS **CADW60000004836**

Objectid:	4836
Latitude:	36.1458
Longitude:	-120.1124
Site code:	361458N1201124W001
State well numbe:	20S17E34F004M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004836

I25
South **FED USGS** **USGS40000170286**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360845120064101		
Monloc name:	020S017E34F002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.145787
Longitude:	-120.1123618	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	391.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19390101	Welldepth:	2995
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

26
South **CA WELLS** **CADW60000004837**
1 - 2 Miles
Lower

Objectid:	4837
Latitude:	36.1456
Longitude:	-120.1116
Site code:	361456N1201116W001
State well numbe:	20S17E34F006M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004837

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

J27
ENE
1 - 2 Miles
Lower

CA WELLS **CADW60000016556**

Objectid:	16556
Latitude:	36.1664
Longitude:	-120.0977
Site code:	361664N1200977W001
State well numbe:	20S17E26C001M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016556

J28
ENE
1 - 2 Miles
Lower

FED USGS **USGS40000170429**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360959120054801		
Monloc name:	020S017E26C001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1663422
Longitude:	-120.0976394	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	372.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19510101	Welldepth:	1920
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	383.00	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

29
NNW
1 - 2 Miles
Higher

CA WELLS **CADW60000003780**

Objectid:	3780
Latitude:	36.1742
Longitude:	-120.121275
Site code:	361742N1201213W001
State well numbe:	20S17E21H001M
Local well name:	'20S/17E-21H01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000003780

K30
SSW
1 - 2 Miles
Higher

CA WELLS **CADW60000009702**

Objectid:	9702
Latitude:	36.145325
Longitude:	-120.120483
Site code:	361453N1201199W001
State well numbe:	20S17E34E001M
Local well name:	'20S/17E-34E01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009702

K31
SSW
1 - 2 Miles
Higher

CA WELLS **CADW60000004838**

Objectid:	4838
Latitude:	36.1447
Longitude:	-120.1199
Site code:	361447N1201199W001
State well numbe:	20S17E34M001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000004838

K32
SSW **FED USGS** **USGS40000170276**
1 - 2 Miles
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360841120070901		
Monloc name:	020S017E34M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1446759
Longitude:	-120.1201398	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	401.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2056
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	471.00	

L33
ENE **FED USGS** **USGS40000170407**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360949120053601		
Monloc name:	020S017E26C002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1635645
Longitude:	-120.0943059	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	368.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19620101	Welldepth:	2017
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

L34
ENE **CA WELLS** **CADW60000006977**
1 - 2 Miles
Lower

Objectid:	6977
Latitude:	36.1636
Longitude:	-120.0943
Site code:	361636N1200943W001
State well numbe:	20S17E26C002M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006977

L35
ENE **CA WELLS** **CADW60000006976**
1 - 2 Miles
Lower

Objectid:	6976
Latitude:	36.1636
Longitude:	-120.0935
Site code:	361636N1200935W001
State well numbe:	20S17E26B001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006976

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

36
ESE
1 - 2 Miles
Lower

CA WELLS **CADW60000009924**

Objectid:	9924
Latitude:	36.152805
Longitude:	-120.093861
Site code:	361528N1200939W001
State well numbe:	20S17E26Q001M
Local well name:	'20S/17E-26Q01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009924

37
NNW
1 - 2 Miles
Higher

FED USGS **USGS40000170548**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361040120071101		
Monloc name:	020S017E22D002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1777311
Longitude:	-120.1206958	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	401.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19450101	Welldepth:	1331
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1958-05-01	284.00	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

38
WNW
1 - 2 Miles
Higher

CA WELLS **CADW60000006979**

Objectid:	6979
Latitude:	36.166542
Longitude:	-120.135933
Site code:	361667N1201357W001
State well numbe:	20S17E28D001M
Local well name:	'20S/17E-28D01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006979

M39
West
1 - 2 Miles
Higher

CA WELLS **CADW60000016560**

Objectid:	16560
Latitude:	36.1603
Longitude:	-120.1382
Site code:	361603N1201382W001
State well numbe:	20S17E28E001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016560

N40
NNE
1 - 2 Miles
Lower

CA WELLS **CADW60000016552**

Objectid:	16552
Latitude:	36.1772
Longitude:	-120.1024
Site code:	361772N1201024W001
State well numbe:	20S17E23E001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016552

M41
West
1 - 2 Miles
Higher

FED USGS **USGS40000170384**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360936120081501		
Monloc name:	020S017E28E001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1599536
Longitude:	-120.1384738	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	422.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	1821
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-05-01	437.00	

42
ENE
1 - 2 Miles
Lower

CA WELLS **CADW60000016555**

Objectid:	16555
Latitude:	36.166683
Longitude:	-120.09135
Site code:	361667N1200921W001
State well numbe:	20S17E26B002M
Local well name:	'20S/17E-26B02'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016555

N43
NNE **FED USGS** **USGS40000170545**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361039120060501		
Monloc name:	020S017E23E001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1774532
Longitude:	-120.1023619	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	386.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2055
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

44
West **CA WELLS** **CADW60000004000**
1 - 2 Miles
Higher

Objectid:	4000
Latitude:	36.157
Longitude:	-120.138777
Site code:	361570N1201388W001
State well numbe:	20S17E29J001M
Local well name:	'20S/17E-29J01'
Well use id:	1
Well use descrip:	Observation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

45
NNW
1 - 2 Miles
Higher

CA WELLS **CADW60000014389**

Objectid:	14389
Latitude:	36.18
Longitude:	-120.121
Site code:	361800N1201210W001
State well numbe:	20S17E22D003M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000014389

O46
NNE
1 - 2 Miles
Lower

FED USGS **USGS40000170547**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361040120055801		
Monloc name:	020S017E23E002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.177731
Longitude:	-120.1004174	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	377.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19660101	Welldepth:	1220
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-12-01	328.00	

Map ID Direction Distance Elevation		Database	EDR ID Number
O47 **NNE** **1 - 2 Miles** **Lower**		**CA WELLS**	**CADW60000006974**

Objectid:	6974
Latitude:	36.177517
Longitude:	-120.1
Site code:	361772N1201004W001
State well numbe:	20S17E23E002M
Local well name:	'20S/17E-23E02'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006974

		Database	EDR ID Number
48 **SSE** **1 - 2 Miles** **Lower**		**FED USGS**	**USGS40000170267**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360828120060601		
Monloc name:	020S017E35N002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1410648
Longitude:	-120.1026392	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	376.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19620101	Welldepth:	296
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

		Database	EDR ID Number
P49 **ENE** **1 - 2 Miles** **Lower**		**FED USGS**	**USGS40000170433**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361000120051701		
Monloc name:	020S017E26A002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.16662
Longitude:	-120.089028	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	363.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19510101	Welldepth:	1970
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Q50
NNW
1 - 2 Miles
Higher

FED USGS **USGS40000170564**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361052120070701		
Monloc name:	020S017E22D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1810644
Longitude:	-120.1195846	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	398.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1919
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q51
NNW
1 - 2 Miles
Higher

CA WELLS **CADW60000016551**

Objectid:	16551
Latitude:	36.1811
Longitude:	-120.1196
Site code:	361811N1201196W001
State well numbe:	20S17E22D001M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016551

52
North
1 - 2 Miles
Lower

CA WELLS **CADW60000006797**

Objectid:	6797
Latitude:	36.18175
Longitude:	-120.111808
Site code:	361817N1201035W001
State well numbe:	20S17E15Q001M
Local well name:	’20S/17E-15Q01’
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006797

R53
SSW
1 - 2 Miles
Higher

FED USGS **USGS40000170264**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360823120072901		
Monloc name:	020S017E33Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.139676
Longitude:	-120.1256954	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	414.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19540101	Welldepth:	1357
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1954-06-01	323.00	

R54
SSW
1 - 2 Miles
Higher

FED USGS **USGS40000170265**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360823120072902		
Monloc name:	020S017E33Q002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.139676
Longitude:	-120.1256954	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	324.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19660101	Welldepth:	200
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

P55
ENE
1 - 2 Miles
Lower

CA WELLS **CADW60000016554**

Objectid:	16554
Latitude:	36.1667
Longitude:	-120.0877
Site code:	361667N1200877W001
State well numbe:	20S17E26A002M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016554

S56
East **CA WELLS** **CADW60000016557**
1 - 2 Miles
Lower

Objectid:	16557
Latitude:	36.16
Longitude:	-120.0857
Site code:	361600N1200857W001
State well numbe:	20S17E26H002M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016557

57
East **FED USGS** **USGS40000170402**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360942120050501		
Monloc name:	020S017E26H001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.16162
Longitude:	-120.0856945	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	359.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1921
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1950-05-01	380.00	

T58
WNW
1 - 2 Miles
Higher

FED USGS **USGS40000170496**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361021120081501		
Monloc name:	020S017E21M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1724534
Longitude:	-120.138474	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	420.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19520101	Welldepth:	2184
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	381.00	

T59
WNW
1 - 2 Miles
Higher

CA WELLS **CADW60000006804**

Objectid:	6804
Latitude:	36.1725
Longitude:	-120.1385
Site code:	361725N1201385W001
State well numbe:	20S17E21M001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006804

S60
East **FED USGS** **USGS40000170383**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360936120050401		
Monloc name:	020S017E26H002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1599534
Longitude:	-120.0854167	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	360.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19550101	Welldepth:	2140
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1955-05-01	448.00	

U61
NNE **FED USGS** **USGS40000170576**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361054120060601		
Monloc name:	020S017E14N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1816199
Longitude:	-120.1026397	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	376.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvial Fan Deposits		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1500
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1954-05-01	256.00	

U62
NNE
1 - 2 Miles
Lower

CA WELLS **CADW60000012649**

Objectid:	12649
Latitude:	36.1819
Longitude:	-120.1027
Site code:	361819N1201027W001
State well numbe:	20S17E14N002M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000012649

V63
SSE
1 - 2 Miles
Lower

CA WELLS **CADW60000009705**

Objectid:	9705
Latitude:	36.1383
Longitude:	-120.101
Site code:	361383N1201010W001
State well numbe:	20S17E35N001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009705

V64
SSE **FED USGS** **USGS40000170235**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360818120060001		
Monloc name:	020S017E35N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.138287
Longitude:	-120.1009724	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	373.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

65
ENE **FED USGS** **USGS40000170432**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361000120050401		
Monloc name:	020S017E26A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.16662
Longitude:	-120.0854168	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	358.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1904
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1950-08-01	358.00	

W66
NW
1 - 2 Miles
Higher

CA WELLS **CADW60000006803**

Objectid:	6803
Latitude:	36.1742
Longitude:	-120.1385
Site code:	361742N1201385W001
State well numbe:	20S17E21E002M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006803

U67
NNE
1 - 2 Miles
Lower

CA WELLS **CADW60000012650**

Objectid:	12650
Latitude:	36.1825
Longitude:	-120.1027
Site code:	361825N1201027W001
State well numbe:	20S17E14N003M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000012650

U68
NNE **FED USGS** **USGS40000170592**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361057120060501		
Monloc name:	020S017E14N002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1824532
Longitude:	-120.1023619	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	376.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19530101	Welldepth:	2363
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

U69
NNE **FED USGS** **USGS40000170593**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361057120060502		
Monloc name:	020S017E14N003M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1824532
Longitude:	-120.1023619	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	375.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19600101	Welldepth:	2117
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-12-01	516.00	

W70
NW
1 - 2 Miles
Higher

CA WELLS **CADW60000016550**

Objectid:	16550
Latitude:	36.174533
Longitude:	-120.138533
Site code:	361742N1201385W002
State well numbe:	20S17E21E003M
Local well name:	'20S/17E-21E03'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016550

W71
NW
1 - 2 Miles
Higher

FED USGS **USGS40000170517**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361028120081601		
Monloc name:	020S017E21E002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1743978
Longitude:	-120.1387518	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	417.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19620101	Welldepth:	414
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

X72
SW **FED USGS** **USGS40000170281**
1 - 2 Miles
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360843120081501		
Monloc name:	020S017E33M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1452316
Longitude:	-120.1384737	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	428.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19510101	Welldepth:	2027
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	552.00	

Y73
ESE **CA WELLS** **CADW60000005055**
1 - 2 Miles
Lower

Objectid:	5055
Latitude:	36.1527
Longitude:	-120.08485
Site code:	361527N1200849W001
State well numbe:	20S17E25N001M
Local well name:	'20S/17E-25N01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000005055

X74
SW
1 - 2 Miles
Higher

CA WELLS **CADW60000004834**

Objectid: 4834
Latitude: 36.1444
Longitude: -120.1382
Site code: 361444N1201382W001
State well numbe: 20S17E33M001M
Local well name: ''
Well use id: 6
Well use descrip: Unknown
County id: 10
County name: Fresno
Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000004834

Y75
ESE
1 - 2 Miles
Lower

CA WELLS **CADW60000009706**

Objectid: 9706
Latitude: 36.1522
Longitude: -120.0846
Site code: 361522N1200846W001
State well numbe: 20S17E36D001M
Local well name: ''
Well use id: 6
Well use descrip: Unknown
County id: 10
County name: Fresno
Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000009706

76
ENE
1 - 2 Miles
Lower

FED USGS **USGS40000170486**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361015120050601		
Monloc name:	020S017E23J001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1707866
Longitude:	-120.0859724	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	360.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1637
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1950-08-01	396.00	

Z77
SSE **FED USGS** **USGS40000170225**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360817120055201		
Monloc name:	021S017E02B001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1380092
Longitude:	-120.0987501	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	370.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19550101	Welldepth:	1793
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Y78
ESE **FED USGS** **USGS40000170321**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360907120050101		
Monloc name:	020S017E36D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1518979
Longitude:	-120.0845832	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	355.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2092
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1959-05-01	326.00	

Z79
SSE **CA WELLS** **CADW60000011765**
1 - 2 Miles
Lower

Objectid:	11765
Latitude:	36.1378
Longitude:	-120.0988
Site code:	361378N1200988W001
State well numbe:	21S17E02B001M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000011765

AA80
ENE **CA WELLS** **CADW60000016553**
1 - 2 Miles
Lower

Objectid:	16553
Latitude:	36.1736
Longitude:	-120.0874
Site code:	361736N1200874W001
State well numbe:	20S17E23J002M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016553

AA81
ENE **FED USGS** **USGS40000170502**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361025120051101		
Monloc name:	020S017E23J002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1735643
Longitude:	-120.0873614	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	361.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19520101	Welldepth:	1929
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-05-01	464.00	

82
ENE **CA WELLS** **CADW60000016491**
1 - 2 Miles
Lower

Objectid:	16491
Latitude:	36.171967
Longitude:	-120.085617
Site code:	361711N1200854W001
State well numbe:	20S17E23J003M
Local well name:	'20S/17E-23J03'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016491

AB83
NE **CA WELLS** **CADW60000016538**
1 - 2 Miles
Lower

Objectid:	16538
Latitude:	36.1817
Longitude:	-120.0963
Site code:	361817N1200963W001
State well numbe:	20S17E14P001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016538

AB84
NE **FED USGS** **USGS40000170575**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361054120054201		
Monloc name:	020S017E14P001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1816198
Longitude:	-120.0959728	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	370.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1956-08-01	304.00	

85
NNE
1 - 2 Miles
Lower

CA WELLS **CADW60000036104**

Objectid:	36104
Latitude:	36.185408
Longitude:	-120.102994
Site code:	361854N1201030W001
State well numbe:	20S17E14M002M
Local well name:	'20S/17E-14M01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000036104

AC86
WNW
1 - 2 Miles
Higher

FED USGS **USGS40000170456**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361002120084601		
Monloc name:	020S017E20Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1671757
Longitude:	-120.1470853	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	428.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19600101	Welldepth:	1567
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AC87
WNW
1 - 2 Miles
Higher

CA WELLS **CADW60000016548**

Objectid:	16548
Latitude:	36.1672
Longitude:	-120.1474
Site code:	361672N1201474W001
State well numbe:	20S17E20Q001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016548

AD88
ESE
1 - 2 Miles
Lower

FED USGS **USGS40000170280**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360843120050201		
Monloc name:	020S017E36E001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1452313
Longitude:	-120.0848609	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	350.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19500101	Welldepth:	1776
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AC89
WNW **CA WELLS** **CADW60000004609**
1 - 2 Miles
Higher

Objectid:	4609
Latitude:	36.166617
Longitude:	-120.147825
Site code:	361667N1201482W001
State well numbe:	20S17E29C001M
Local well name:	'20S/17E-29C01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004609

AD90
ESE **CA WELLS** **CADW60000004842**
1 - 2 Miles
Lower

Objectid:	4842
Latitude:	36.1453
Longitude:	-120.0846
Site code:	361453N1200846W001
State well numbe:	20S17E36E001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004842

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

AD91
ESE
1 - 2 Miles
Lower

CA WELLS **CADW60000009923**

Objectid:	9923
Latitude:	36.145
Longitude:	-120.08475
Site code:	361450N1200848W001
State well numbe:	20S17E36M001M
Local well name:	'20S/17E-36M01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009923

AE92
SE
1 - 2 Miles
Lower

CA WELLS **CADW60000011764**

Objectid:	11764
Latitude:	36.13765
Longitude:	-120.092683
Site code:	361378N1200927W001
State well numbe:	21S17E01D001M
Local well name:	'21S/17E-01D01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000011764

AF93
NNE
1 - 2 Miles
Lower

FED USGS **USGS40000170606**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361105120054301		
Monloc name:	020S017E14P002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1846754
Longitude:	-120.0962507	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	368.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19500101	Welldepth:	2114
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1954-05-01	436.00	

AE94
SE
1 - 2 Miles
Lower

FED USGS **USGS40000170209**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360815120052901		
Monloc name:	021S017E01D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1374536
Longitude:	-120.092361	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	360.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	1830
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AG95
NE
1 - 2 Miles
Lower

FED USGS **USGS40000170574**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361054120052401		
Monloc name:	020S017E14Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1816198
Longitude:	-120.0909727	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	365.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19580101	Welldepth:	2077
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AH96
SSE **CA WELLS** **CADW60000009465**
1 - 2 Miles
Lower

Objectid:	9465
Latitude:	36.133133
Longitude:	-120.1017
Site code:	361328N1201016W001
State well numbe:	21S17E02G001M
Local well name:	'21S/17E-02G01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009465

AF97
NNE **CA WELLS** **CADW60000006796**
1 - 2 Miles
Lower

Objectid:	6796
Latitude:	36.1847
Longitude:	-120.096
Site code:	361847N1200960W001
State well numbe:	20S17E14P002M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006796

AH98
SSE **FED USGS** **USGS40000170177**
1 - 2 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360759120060301		
Monloc name:	021S017E02G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1330093
Longitude:	-120.1018057	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	375.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19650101	Welldepth:	2025
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-11-01	343.00	

99
NW **CA WELLS** **CADW60000016549**
1 - 2 Miles
Higher

Objectid:	16549
Latitude:	36.180933
Longitude:	-120.138783
Site code:	361811N1201374W001
State well numbe:	20S17E21D001M
Local well name:	'20S/17E-21D01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000016549

AG100
NE
2 - 3 Miles
Lower

CA WELLS **CADW60000016539**

Objectid: 16539
Latitude: 36.1819
Longitude: -120.0907
Site code: 361819N1200907W001
State well numbe: 20S17E14Q001M
Local well name: ''
Well use id: 6
Well use descrip: Unknown
County id: 10
County name: Fresno
Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000016539

AI101
SW
2 - 3 Miles
Higher

CA WELLS **CADW60000004835**

Objectid: 4835
Latitude: 36.1383
Longitude: -120.1382
Site code: 361383N1201382W001
State well numbe: 20S17E33N001M
Local well name: ''
Well use id: 6
Well use descrip: Unknown
County id: 10
County name: Fresno
Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000004835

AI102
SW
2 - 3 Miles
Higher

FED USGS **USGS40000170236**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360818120081401		
Monloc name:	020S017E33N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1382872
Longitude:	-120.1381958	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	432.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2090
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1954-05-01	380.00	

AI103
SW
2 - 3 Miles
Higher

FED USGS **USGS40000170251**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360819120081601		
Monloc name:	020S017E32R001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.138565
Longitude:	-120.1387514	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	434.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19660101	Welldepth:	540
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-06-01	430.00	

AJ104
NNE
2 - 3 Miles
Lower

CA WELLS **CADW60000012648**

Objectid:	12648
Latitude:	36.1878
Longitude:	-120.1027
Site code:	361878N1201027W001
State well numbe:	20S17E14M001M
Local well name:	’’
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	’5-22.09’
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000012648

AJ105
NNE
2 - 3 Miles
Lower

FED USGS **USGS40000170620**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361117120060701		
Monloc name:	020S017E14M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1880087
Longitude:	-120.1029176	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	375.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		

Aquifer type:	Not Reported		
Construction date:	19460101	Welldepth:	2125
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1961-05-01	390.00	

106
ESE **FED USGS** **USGS40000170327**
2 - 3 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360908120044101		
Monloc name:	020S017E36C001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1521756
Longitude:	-120.0790275	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	352.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1940
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AK107
NNW **CA WELLS** **CADW60000016541**
2 - 3 Miles
Higher

Objectid:	16541
Latitude:	36.189117
Longitude:	-120.121817
Site code:	361894N1201218W001
State well numbe:	20S17E16H001M
Local well name:	’20S/17E-16H01’
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016541

AI108
SW
2 - 3 Miles
Higher

CA WELLS **CADW60000004833**

Objectid:	4833
Latitude:	36.1381
Longitude:	-120.1391
Site code:	361381N1201391W001
State well numbe:	20S17E32R001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004833

AK109
North
2 - 3 Miles
Higher

CA WELLS **CADW60000000995**

Objectid:	995
Latitude:	36.189283
Longitude:	-120.120983
Site code:	361893N1201210W001
State well numbe:	20S17E15E001M
Local well name:	'20S/17E-15E01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000000995

AK110
NNW
2 - 3 Miles
Higher

FED USGS **USGS40000170634**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361122120071501		
Monloc name:	020S017E16H001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1893976
Longitude:	-120.121807	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	398.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19640101	Welldepth:	1964
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-12-01	491.00	

111
WNW
2 - 3 Miles
Higher

CA WELLS **CADW60000000997**

Objectid:	997
Latitude:	36.173858
Longitude:	-120.147683
Site code:	361739N1201477W001
State well numbe:	20S17E20K001M
Local well name:	'20S/17E-20K01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000000997

112
East
2 - 3 Miles
Lower

CA WELLS **CADW60000006975**

Objectid:	6975
Latitude:	36.15965
Longitude:	-120.075733
Site code:	361597N1200752W001
State well numbe:	20S17E25K001M
Local well name:	'20S/17E-25K01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006975

AL113
NW
2 - 3 Miles
Higher

CA WELLS **CADW60000016543**

Objectid:	16543
Latitude:	36.1817
Longitude:	-120.1424
Site code:	361817N1201424W001
State well numbe:	20S17E17R001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016543

AM114
SSW
2 - 3 Miles
Higher

CA WELLS **CADW60000011767**

Objectid:	11767
Latitude:	36.13055
Longitude:	-120.12825
Site code:	361303N1201282W001
State well numbe:	21S17E03M001M
Local well name:	'21S/17E-03M01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000011767

AL115
NW
2 - 3 Miles
Higher

FED USGS **USGS40000170577**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361054120083001		
Monloc name:	020S017E17R001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.18162
Longitude:	-120.1426409	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	423.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19510101	Welldepth:	2011
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

116
NE
2 - 3 Miles
Lower

CA WELLS **CADW60000016540**

Objectid:	16540
Latitude:	36.181667
Longitude:	-120.085567
Site code:	361817N1200857W001
State well numbe:	20S17E14R001M
Local well name:	'20S/17E-14R01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016540

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

AM117
SSW
2 - 3 Miles
Higher

FED USGS **USGS40000170165**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360749120073701		
Monloc name:	021S017E03M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1302317
Longitude:	-120.1279176	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	411.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19600101	Welldepth:	2114
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AN118
ESE
2 - 3 Miles
Lower

CA WELLS **CADW60000004841**

Objectid:	4841
Latitude:	36.1522
Longitude:	-120.076
Site code:	361522N1200760W001
State well numbe:	20S17E36B001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004841

AO119
WSW
2 - 3 Miles
Higher

CA WELLS **CADW60000004832**

Objectid:	4832
Latitude:	36.145075
Longitude:	-120.14915
Site code:	361453N1201502W001
State well numbe:	20S17E32F001M
Local well name:	'20S/17E-32F01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004832

AP120
SW
2 - 3 Miles
Higher

CA WELLS **CADW60000009620**

Objectid:	9620
Latitude:	36.1342
Longitude:	-120.1377
Site code:	361342N1201377W001
State well numbe:	21S17E04G001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000009620

AP121
SW
2 - 3 Miles
Higher

FED USGS **USGS40000170182**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360803120081201		
Monloc name:	021S017E04G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1341206
Longitude:	-120.1376402	Sourcemap scale:	Not Reported

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	429.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19510101	Welldepth:	2074
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AN122
ESE
2 - 3 Miles
Lower

FED USGS **USGS40000170326**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360908120042901		
Monloc name:	020S017E36B001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1521756
Longitude:	-120.075694	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	347.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19520101	Welldepth:	1751
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	452.00	

AO123
WSW
2 - 3 Miles
Higher

FED USGS **USGS40000170282**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360843120085701		
Monloc name:	020S017E32F001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1452316
Longitude:	-120.1501407	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	447.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19630101	Welldepth:	2000
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-12-01	602.00	

124
NNE
2 - 3 Miles
Lower

CA WELLS **CADW60000010304**

Objectid:	10304
Latitude:	36.188416
Longitude:	-120.094138
Site code:	361884N1200941W001
State well numbe:	20S17E14K001M
Local well name:	'20S/17E-14K01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000010304

125
SE
2 - 3 Miles
Lower

CA WELLS **CADW60000001014**

Objectid:	1014
Latitude:	36.137717
Longitude:	-120.0839
Site code:	361377N1200839W001
State well numbe:	21S17E01B001M
Local well name:	'21S/17E-01B01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000001014

AQ126
West
2 - 3 Miles
Higher

FED USGS **USGS40000170357**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360921120091701		
Monloc name:	020S017E29N002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1557871
Longitude:	-120.1556965	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	449.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19660101	Welldepth:	2051
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-12-01	569.00	

AQ127
West
2 - 3 Miles
Higher

CA WELLS **CADW60000004610**

Objectid:	4610
Latitude:	36.155867
Longitude:	-120.155817
Site code:	361558N1201557W001
State well numbe:	20S17E29N002M
Local well name:	'20S/17E-29N02'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004610

AR128
West
2 - 3 Miles
Higher

FED USGS **USGS40000170385**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360936120091901		
Monloc name:	020S017E29E001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1599537
Longitude:	-120.1562522	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	445.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2024
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1958-05-01	426.00	

AR129
West
2 - 3 Miles
Higher

CA WELLS **CADW60000016371**

Objectid:	16371
Latitude:	36.16
Longitude:	-120.1563
Site code:	361600N1201563W001
State well numbe:	20S17E29E001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000016371

AS130
SW
2 - 3 Miles
Higher

FED USGS **USGS40000170237**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360818120084601		
Monloc name:	020S017E32Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1382873
Longitude:	-120.147085	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	447.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19440101	Welldepth:	1912
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1960-05-01	419.00	

AS131
SW
2 - 3 Miles
Higher

CA WELLS **CADW60000014390**

Objectid:	14390
Latitude:	36.1383
Longitude:	-120.1471
Site code:	361383N1201471W001
State well numbe:	20S17E32Q001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno
Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000014390

AT132
WSW
2 - 3 Miles
Higher

FED USGS **USGS40000170336**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360910120091801		
Monloc name:	020S017E29N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1527316
Longitude:	-120.1559743	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	452.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range (Pliocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	2020
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

AT133
WSW
2 - 3 Miles
Higher

CA WELLS **CADW60000006981**

Objectid:	6981
Latitude:	36.1528
Longitude:	-120.156
Site code:	361528N1201560W001
State well numbe:	20S17E29N001M
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	10
County name:	Fresno

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000006981

134
WNW
2 - 3 Miles
Higher

FED USGS **USGS40000170462**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-361003120091901		
Monloc name:	020S017E20N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1674536
Longitude:	-120.1562522	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	439.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	1335
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1956-05-01	331.00	

135
West
2 - 3 Miles
Higher

CA WELLS **CADW60000005246**

Objectid:	5246
Latitude:	36.166527
Longitude:	-120.157194
Site code:	361665N1201572W001
State well numbe:	20S17E30A001M
Local well name:	'20S/17E-30A01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

Basin code: '5-22.09'
Basin desc: Westside
Dwr region id: 80237
Dwr region: South Central Region Office
Site id: CADW60000005246

AU136
ESE **FED USGS** **USGS40000170325**
2 - 3 Miles
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-360908120041301		
Monloc name:	020S017E36A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18030012	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	36.1521756
Longitude:	-120.0712495	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	342.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19650101	Welldepth:	1896
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-02-01	454.00	

AU137
ESE **CA WELLS** **CADW60000004840**
2 - 3 Miles
Lower

Objectid:	4840
Latitude:	36.152342
Longitude:	-120.071075
Site code:	361522N1200710W001
State well numbe:	20S17E36A001M
Local well name:	'20S/17E-36A01'
Well use id:	3
Well use descrip:	Irrigation
County id:	10
County name:	Fresno

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Basin code:	'5-22.09'
Basin desc:	Westside
Dwr region id:	80237
Dwr region:	South Central Region Office
Site id:	CADW60000004840

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
SE **OIL_GAS** **CAOG11000269947**
1 - 2 Miles

District nun:	5	Api number:	01920728
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Great Basins Petroleum Co.		
County name:	Fresno	Fieldname:	Any Field
Area name:	Any Area	Section:	35
Township:	20S	Range:	17E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Fr NW cor 1320 Sly 2549 Ely		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1-35
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	23-DEC-72
Welldeptha:	15010		
Redrillfoo:	0		
Abandonedd:	21-MAR-73	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000269947		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

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%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

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.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX E
Environmental Lien Search Report

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234

Inquiry Number: 5068323.7
October 10, 2017

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234

RESEARCH SOURCE

Source 1:

Fresno
Fresno, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	CA Dingle Anne A Delaware Christopher R Woolf Trus
Title received from:	Anne A Delaware Donald R Franson Jr Trustees
Deed Dated	6/15/1988
Deed Recorded:	6/30/1988
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	CA Dingle Anne A Delaware Christopher R Woolf Trustees
Parcel # / Property Identifier:	075-070-34S
Comments:	See Exhibit

Deed 2:

Type of Deed:	deed
Title is vested in:	Christopher R Woolf & Anne A Delaware & Daryl Bars
Title received from:	Calif Valley Land
Deed Dated	5/19/2011
Deed Recorded:	5/31/2011
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	

Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Christopher R Woolf & Anne A Delaware & Daryl Barsoom Trustees

Parcel # / Property Identifier: 075-070-33, 075-070-35

Comments: See Exhibit

Deed 3:

Type of Deed: deed
Title is vested in: CA Dingle Anne A Delaware Christopher R Woolf Trus
Title received from: Lansing Farming Co
Deed Dated 4/4/1990
Deed Recorded: 4/24/1990
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: CA Dingle Anne A Delaware Christopher R Woolf Trustees

Parcel # / Property Identifier: 075-130-59S

Comments: See Exhibit

Deed 4:

Type of Deed: deed
Title is vested in: CA Dingle Anne A Delaware Christopher R Woolf Trus
Title received from: Nona Ruth Hawk
Deed Dated 5/16/1988
Deed Recorded: 6/29/1988
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: CA Dingle Anne A Delaware Christopher R Woolf Trustees

Parcel # / Property Identifier: 075-130-54S

Comments: See Exhibit

Deed 5:

Type of Deed:	deed
Title is vested in:	Christopher R Woolf & Anne A Delaware Trustees
Title received from:	Charles A & Doris R Dingle
Deed Dated	5/31/2007
Deed Recorded:	6/4/2007
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: Christopher R Woolf & Anne A Delaware Trustees

Parcel # / Property Identifier: 075-130-10S

Comments: See Exhibit

Deed 6:

Type of Deed:	deed
Title is vested in:	Christopher R Woolf & Anne A Delaware Trustees
Title received from:	Charles A & Doris R Dingle
Deed Dated	1/31/2001
Deed Recorded:	2/13/2001
Book:	NA
Page:	na
Volume:	NA
Instrument:	na
Docket:	na
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: Christopher R Woolf & Anne A Delaware Trustees

Parcel # / Property Identifier: 075-130-12S, 075-130-60S

Comments: See Exhibit

Deed 7:

Type of Deed:	deed
Title is vested in:	Stuart P & Christopher R & Michael T Woolf Trustee
Title received from:	Stuart P & Christopher R & Michael T Woolf Trustee
Deed Dated	2/25/2015
Deed Recorded:	4/15/2015
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Stuart P & Christopher R & Michael T Woolf Trustees
Parcel # / Property Identifier:	075-060-15S
Comments:	See Exhibit

Deed 8:

Type of Deed:	deed
Title is vested in:	Woolf Properties
Title received from:	CA Valley Land Co Inc
Deed Dated	12/20/2013
Deed Recorded:	12/26/2013
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Woolf Properties
Parcel # / Property Identifier:	075-060-52S-9
Comments:	See Exhibit

Deed 9:

Type of Deed:	deed

EDR Environmental Lien and AUL Search

Title is vested in:	Stuart P & Christopher R & Michael T Woolf Trustee
Title received from:	Stuart P & Christopher R & Michael T Woolf Trustee
Deed Dated	2/25/2015
Deed Recorded:	4/14/2015
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Stuart P & Christopher R & Michael T Woolf Trustees
Parcel # / Property Identifier:	075-070-01S
Comments:	See Exhibit

Deed 10:

Type of Deed:	deed
Title is vested in:	CA Dingle Anne A Delaware Christopher R Woolf Trus
Title received from:	Anne A Delaware & Michael T Woolf Trustees
Deed Dated	6/30/1988
Deed Recorded:	6/30/1988
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	CA Dingle Anne A Delaware Christopher R Woolf Trustees
Parcel # / Property Identifier:	075-070-32S
Comments:	See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

RECORDING REQUESTED BY

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENTS TO:

NAME
ADDRESS
CITY & STATE ZIP — Woolf Family Trust No. I
P.O. Box 995
Huron, CA 93234

Title Order No. Escrow No.

88071542

RECORDED IN OFFICIAL RECORDS OF FRESNO COUNTY, CALIFORNIA,
AT 25 MIN. PAST 2P M.
JUN 30 1988
GALEN LARSON, County Recorder
FEE $5

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned declares that the documentary transfer tax is $ -0- and is
☐ computed on the full value of the interest or property conveyed, or is
☒ computed on the full value less the value of liens or encumbrances remaining thereon at the time of sale. The land, tenements or realty is located in
☒ unincorporated area ☐ city of ..... and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

ANNE A. DELAWARE, DONALD R. FRANSON, JR.
co-trustees of the STUART COULTEP WOOLF TRUST

hereby GRANT(S) to

C. A. DINGLE, ANNE A. DELAWARE and
CHRISTOPHER R. WOOLF, as co-trustees
of the WOOLF FAMILY TRUST NO. I

the following described real property in the county of Fresno, state of California:

The Northwest Quarter of Section 34, Township 20 South, Range 17, East, M.D.B.&M., according to the Official Plat thereof;

EXCEPTING THEREFROM all minerals, oil, gas and other hydrocarbons, associated substances, sulphur, nitrogen and other commercially valuable substances, as heretobefore reserved of record

Portion of 075-070-195 & 205

Dated June 15, 1988

Anne A. Delaware - Co Trustee
Anne A. Delaware
Donald R. Franson - Co Trustee
Donald R. Franson, Jr.

STATE OF CALIFORNIA
COUNTY OF FRESNO

OFFICIAL SEAL
MARY L. LABBE
NOTARY PUBLIC-CALIFORNIA
PRINCIPAL OFFICE IN
FRESNO COUNTY
My Commission Expires July 12, 1989

Portion of
075-070-195 & 205

On this 15th day of June in the year 1988, before me Mary L. Labbe, a Notary Public, State of California, duly commissioned and sworn, personally appeared Anne A. Delaware and Donald R. Franson, Jr., personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the State of California County of Fresno on the date set forth above in this certificate.

Mary L Labbe
Notary Public, State of California

My commission expires July 12, 1989

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Cowdery's Form No. 32—Acknowledgement to Notary Public-Individuals (c.c. sec. 1189.)

FRESNO COUNTY RECORDERS OFFICE

JUN 30 1988

Deed Exhibit 2

RECORDING REQUESTED BY:
Chicago Title Company
Escrow No.: 10-**45031546**-SCF
Locate No.: CACTI7710-7710-4450-0045031546
Title No.: 10-**45031546**-CW

When Recorded Mail Document and Tax Statement To:
Woolf Family Trust No I
7041 N. Van Ness Blvd.
Fresno, CA. 93711

FRESNO County Recorder
Paul Dictos, C.P.A.
DOC- 2011-0072570
Acct 1002-Chicago Title Ins Co ER
Tuesday, MAY 31, 2011 12 42 56
Ttl Pd $24.00 Nbr-0003446347
RGR/R4/1-3

APN: Ptn 075-070-33, 35

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned grantor(s) declare(s)
Documentary transfer tax is $ none due - Deed given to unify the ownership in the Trust.
[ ] computed on full value of property conveyed, or
[ ] computed on full value less value of liens or encumbrances remaining at time of sale,
[x] Unincorporated Area

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

CALIFORNIA VALLEY LAND CO., INC., a California corporation, which acquired title as CALIFORNIA VALLEY LAND CO , a California corporation,

hereby GRANT(S) to CHRISTOPHER R. WOOLF, ANNE A. DELAWARE AND DARYL BARSOOM, as Trustees of the WOOLF FAMILY TRUST NO. I,

the following described real property in the unincorporated area, County of **Fresno**, State of **California**

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

DATED: May 19, 2011

CALIFORNIA VALLEY LAND CO., INC.,
a California corporation

By: _____
Stuart Woolf, President and CEO

By: _____
Ricardo Skaff, Executive V.P. and CFO

State of California)
County of FRESNO)

On May 20, 2011 before me, SUE MEYER, Notary Public (here insert name and title of the officer), personally appeared STUART WOOLF AND RICARDO SKAFF,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

TGJ1 SUE MEYER
COMM. #1873167
NOTARY PUBLIC - CALIFORNIA
FRESNO COUNTY
My Comm Expires January 10, 2014 TGJ1

MAIL TAX STATEMENTS AS DIRECTED ABOVE

Escrow No.: 10-**45031546**-SCF
Locate No.: CACTI7710-7710-4450-0045031546
Title No.: 10-**45031546**-CW

EXHIBIT "A"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS·

PARCEL 1. APN 075-070-33, 35

All buildings and improvements located on the following described property as said buildings and improvements existed on March 4, 1983.

Those portions of Section 34, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof, described as follows·

The East 467 feet of the South 934 feet of the Northwest quarter of said Section 34, and the West 467 feet of the South 934 feet of the Northeast quarter of Section 34.

PARCEL 2: APN 075-100-12s (portion)

All buildings and improvements located on the following described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property.

An undivided 18/23rds interest in and to·

The South two-thirds of the North three-fifths of the East half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Merdian, according to the Official Plat thereof

PARCEL 3· APN 075-100-12s (portion)

All buildings and improvements located on the described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property;

An undivided 18/23rd interest in and to:

The South two-thirds of the North three-fifths of the East half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

PARCEL 4: APN 075-100-12s (portion)

All buildings and improvements located on the described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property,

An undivided 18/23rd interest in and to:

The South two-fifths of the East half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

PARCEL 5: APN 075-100-12s (portion)

All buildings and improvements located on the described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property,

An undivided 18/23rd interest in and to:

The South two-fifths of the East half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

PARCEL 6: APN 075-100-12s (portion)

All buildings and improvements located on the described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property;

An undivided 18/23rd interest in and to:

The South two-fifths of the West half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

PARCEL 7. APN 075-100-12s (portion)

All buildings and improvements located on the described property as said buildings and improvements existed on January 29, 1982, which constitute real property and are to remain real property;

An undivided 18/23rd interest in and to:

The South two-fifths of the West half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Deed Exhibit 3

RECORDING REQUESTED BY

90048749

RECORDED AT REQUEST OF
CHICAGO TITLE

AT 8 A.M. PAST 1 P.M.

APR 24 1990

GALEN LARSON, County Recorder

BY DEPUTY RECORDER

FEE $ 7

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SPECIFIED, MAIL TAX STATEMENTS TO:

NAME WOOLF FAMILY TRUST NO I
ADDRESS P.O. Box 995
CITY & STATE Huron, CA 93234

Title Order No. Escrow No. 408142-MK

SPACE ABOVE THIS LINE FOR RECORDER'S USE

PARTNERSHIP GRANT DEED

The undersigned declares that the documentary transfer tax is $ 6.05 and is
☐ computed on the full value of the interest or property conveyed, or is
☒ computed on the full value less the value of liens or encumbrances remaining thereon at the time of sale.
The land, tenements or realty is located in
☒ unincorporated area ☐ city of and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
LANSING FARMING CO.

a California general partnership organized under the laws of the State of
hereby GRANT(S) to C.A. DINGLE, ANNE A. DELAWARE, and CHRISTOPHER R. WOOLF, as co-trustees of the WOOLF FAMILY TRUST NO I

the following described real property in the county of Fresno, state of California:

The North one-half of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the United States Government Township Plats, approved by the Surveyor General on February 28, 1855.

EXCEPTING THEREFROM all oil, gas, minerals and other hydrocarbon substances in and under said land as heretofore reserved of record.

Lansing Farming Co. by

Anne Woolf Franson

Nancy Woolf Roberts

John L. Woolf III

Michael P. Woolf

Stuart P. Woolf

Christopher R. Woolf

Dated April 4, 1990

STATE OF CALIFORNIA
COUNTY OF Fresno } ss.

On this the ____ day of ____ 19__ before me, the undersigned, a Notary Public in and for said County and State, personally appeared Anne Woolf Franson, Nancy Woolf Roberts, John L. Woolf III, Michael P. Woolf Stuart P. Woolf, Christopher R. Woolf personally known to me or proved to me on the basis of satisfactory evidence to be all of the partners of the partnership that executed the within instrument, and acknowledged to me that such partnership executed the same.

Signature

FOR NOTARY SEAL OR STAMP

Assessor's Parcel No. 075-130-595

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SO SHOWN, MAIL AS DIRECTED ABOVE

Name

FRESNO COUNTY RECORDERS OFFICE

APR 24 1990

S0046749

STATE OF CALIFORNIA
COUNTY OF Fresno

On this 14th day of April in the year 1990
before me, MARY L. LABBE a Notary Public, State of California, duly licensed and sworn, personally appeared ANNE WOOLF LEANSON, NANCY WOOLF ROBERTS, JOHN L. WOOLF III, MICHAEL T. WOOLF, STEPHEN T. WOOLF, CHRISTOPHER R. WOOLF
personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons that executed this instrument, on behalf of the partnership and acknowledged to me that the partnership executed it.

OFFICIAL SEAL
MARY L. LABBE
NOTARY PUBLIC-CALIFORNIA
PRINCIPAL OFFICE IN
FRESNO COUNTY
My Commission Exp. July 12, 1993

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, in the State of California, County of Fresno on the date set forth above in this certificate.

Mary L. Labbe
Notary Public, State of California.

My commission expires July 12, 1993

Cowdery's Form No. 29 — Acknowledgment to Notary Public — Partnership — (C.C. Sec. 1190A.) — (Rev. 1/83)

PARTNERSHIP GRANT DEED

PARTNERSHIP GRANT DEED

Fidelity National Title

RECORDED AT REQUEST OF FIDELITY TITLE

APR 24 1990

Deed Exhibit 4

RECORDING REQUESTED BY

CHICAGO TITLE

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENTS TO:

NAME The Woolf Family Trust No.I
ADDRESS P.O. Box 215
CITY & STATE Huron, CA. 93234
ZIP

Title Order No. Escrow No. 395244-MT

OFFICIAL TITLE
RECORDED IN OFFICIAL RECORDS OF FRESNO COUNTY, CALIFORNIA
AT MIN. PAST M
JUN 29 1988
GALEN LARSON, County Recorder
FEE $ 3.

88070620

DOCUMENTARY TRANSFER TAX PAID FRESNO COUNTY $194.15

FRESNO COUNTY RECORDERS OFFICE

JUN 29 1988

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned declares that the documentary transfer tax is $ 194.15 and is
☐ computed on the full value of the interest or property conveyed, or is
☒ computed on the full value less the value of liens or encumbrances remaining thereon at the time of sale. The land, tenements or realty is located in
☒ unincorporated area ☐ city of ..... and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

NONA RUTH HAWK, a widow,

hereby GRANT(S) to C.A. DINGLE, ANNE A. DELAWARE, AND CHRISTOPHER R. WOOLF, as co-trustees of the WOOLF FAMILY TRUST NO. I,

the following described real property in the county of Fresno, state of California:

The South half of the Southeast quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof;
EXCEPTING THEREFROM the East 50 feet thereof;
ALSO EXCEPTING THEREFROM all oil, gas, minerals and other hydrocarbon substances in and under said land as heretofore reserved of record.

SF

SUBJECT TO: A deed of trust of record in favor of Woolf Farming Company of California, Inc., recorded October 20, 1981, as Document No. 93788, Book 1803 Page 845, of Official Records of said County, which unpaid principal balance, together with the interest accrued thereon, Grantee herein assumes and agrees to pay.

395244-MT

Dated May 16, 1988

Nona Ruth Hawk

STATE OF CALIFORNIA
COUNTY OF Fresno } SS.

On this the 20th day of May 19 88, before me the undersigned, a Notary Public in and for said County and State, personally appeared Nona Ruth Hawk

, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same.

Mary L Labbe
Signature of Notary

FOR NOTARY SEAL OR STAMP

OFFICIAL SEAL
MARY L. LABBE
NOTARY PUBLIC-CALIFORNIA
PRINCIPAL OFFICE IN
FRESNO COUNTY
My Commission Expires July 12, 1989

Assessor's Parcel No. 015-130-55s

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SO SHOWN, MAIL AS DIRECTED ABOVE

Name Street Address City & State

CAL-1 (Rev. 3-82)

Deed Exhibit 5

RECORDING REQUESTED BY

RICHARDSON, JONES & ESRAELIAN

AND WHEN RECORDED MAIL THIS DEED TO:

NAME: ROBERT L. JONES, JR.
RICHARDSON, JONES & ESRAELIAN

STREET ADDRESS: 2660 W. Shaw Ave., #100

CITY & STATE, ZIP: FRESNO, CA 93711

FRESNO County Recorder
Robert C. Werner
DOC- 2007-0109873
Check Number 25137
Monday, JUN 04, 2007 11:36:41
Ttl Pd $17.50 Nbr-0002522507
RGR/R4/1-2

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

THE UNDERSIGNED GRANTOR(s) DECLARE(S)
DOCUMENTARY TRANSFER TAX IS $ 5.50
_X_ unincorporated area Fresno County __City of _____
Parcel No. 075-130-10S
_X_ Computed on full value of property conveyed, or
__Computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Charles A. Dingle and Doris R. Dingle, husband and wife, as community property,

hereby GRANTS to Christopher R. Woolf and Anne A. Delaware, Trustees of the Woolf Family Trust No. I,

That real property in the County of Fresno, State of California described as follows:

The South one-half of the Southeast quarter of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the United States Government Township Plat approved by the Surveyor General on February 28, 1995,

EXCEPT any oil, gas and minerals as heretofore reserved and/or conveyed of record;

APN: 075-130-10S

DATED: 5/31/07

CHARLES A. DINGLE

DORIS R. DINGLE

MAIL TAX STATEMENTS TO ADDRESS SHOWN BELOW
Christopher R. Woolf and Anne A. Delaware, Trustee 7041 N. Van Ness Blvd. Fresno, CA 93711

STATE OF CALIFORNIA)
)
COUNTY OF FRESNO)

On May 31, 2007, before me, Linda D Bennett, Notary Public, personally appeared

CHARLES A. DINGLE

personally known to me ~~or proved to me on the basis of satisfactory evidence~~ to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

Witness my hand and official seal.

LINDA D. BENNETT
COMM. #1427516
NOTARY PUBLIC - CALIFORNIA
FRESNO COUNTY
My Comm. Expires July 27, 2007

(Seal)

Linda D Bennett
Notary

STATE OF CALIFORNIA)
)
COUNTY OF FRESNO)

On May 31, 2007, before me, Linda D Bennett, Notary Public, personally appeared

DORIS R. DINGLE

personally known to me ~~or proved to me on the basis of satisfactory evidence~~ to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(ies), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

Witness my hand and official seal.

LINDA D. BENNETT
COMM. #1427516
NOTARY PUBLIC - CALIFORNIA
FRESNO COUNTY
My Comm. Expires July 27, 2007

(Seal)

Linda D Bennett
Notary

2

Deed Exhibit 6

5

RECORDING REQUESTED BY

CHICAGO TITLE COMPANY

AND WHEN RECORDED MAIL THIS DEED AND UNLESS OTHERWISE SHOWN BELOW MAIL TAX STATEMENT TO

Name
Street Address
City & State Zip

Woolf Enterprises, Inc.
7041 N. Van Ness Blvd.
Fresno, Ca. 93711

Title Order No. _____ Escrow No. 5575035-SCF

Fresno County Recorder
William C. Greenwood
DOC:- 2001-0017868

Acct 2-Chicago Title Company
Tuesday, FEB 13, 2001 08:00:00
TCF $4.00 MOD $5.00 MIC $1.00
DRF $8.00 TTU $583.00
Tkl Pd $602.00 Nbr-0000487758
jan/RS/1-5

T 355 Legal (2-94)

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Grant Deed

THE UNDERSIGNED GRANTOR(S) DECLARE(S)

DOCUMENTARY TRANSFER TAX IS $ 583.00 .

XX ____ unincorporated area ☐ City of _____

Parcel No. 075-130-12s & 60s

XX computed on full value of interest or property conveyed, or

☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

CHARLES A. DINGLE and DORIS R. DINGLE, husband and wife

hereby GRANT(S) to CHRISTOPHER R. WOOLF and ANNE A. DELAWARE, Trustees of the WOOLF FAMILY TRUST NO. 1

the following described real property in the

county of Fresno , state of California.

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

Dated January 31, 2001

Charles A. Dingle

Doris R. Dingle

STATE OF CALIFORNIA
COUNTY OF Fresno } S.S.

On January 31, 2001 before me,

the undersigned

a Notary Public in and for said County and State, personally appeared Charles A. Dingle and Doris R. Dingle

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____

SUZANNE C. FORD
COMM. #1146516
NOTARY PUBLIC - CALIFORNIA
FRESNO COUNTY
My Comm. Expires Oct. 6, 2003

This area for official notarial seal

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

Name Street Address City & State

EXHIBIT A

PARCEL 1:

The North half of the East half of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 2:

The Northwest quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT all oil, gas and other hydrocarbon substances and minerals within or under said land, or that may be produced and saved therefrom, together with the right of extracting the same and the right of ingress and egress for such purposes, as reserved in the Deeds to William Bizieff, dated May 21, 1945 and June 1, 1945, recorded August 22, 1946, Document No. 58426 and 58427, respectively.

PARCEL 3:

The East half of the Northwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT an undivided 1/4th interest in and to all oil, gas and other hydrocarbons and minerals now or at any time hereafter situate herein and thereunder, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said real property and also the right to drill for, produce and use water from the said real property in connection with drilling or mining operations thereon, as reserved in the Deed from William Bizieff, also known as William N. Bizieff and Mary E. Bizieff, his wife, to Thomas & Wood, a co-partnership, dated January 3, 1947, recorded January 20, 1947 as Document No. 3768;

ALSO EXCEPT an undivided 37-1/2% interest in and to all oil, gas, petroleum, hydrocarbon substances and minerals now or at any time hereafter located in, under and upon said land, together with all easements and rights necessary or convenient for the production, storage and transportation thereof, and the exploration and testing of said property, and also the right to drill for, produce and use water from said property in connection with drilling or mining operations thereon, and together with the right of ingress and egress to and from said property for any or all of such purposes, as reserved in the Deed from Sherman Thomas and Cordelia Thomas, his wife, and Raymond Thomas and Edna Thomas, his wife, to Giffen, Inc., a corporation, dated November 1, 1948, recorded January 14, 1949 as Document No. 2093.

ALSO EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 4:

The North half of the Southeast quarter of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT all oil, and/or other hydrocarbon substances and all minerals in or under said land, with the right to explore the same, as reserved in the Deed from Bishop Moore, et ux, to William Bizieff, dated January 4, 1945, recorded March 14, 1945 as Document No. 10478.

PARCEL 5:

The Northwest quarter of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT mineral rights or minerals or oil or rights pertaining thereto, as reserved in the Deed from Mattie C. Green to W. N. Bizieff, dated January 4, 1944, recorded March 14, 1945 Document No. 10476.

ALSO EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 6:

The West half of the South half of the South half of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT an undivided 1/2 interest in and to all oil, gas and other hydrocarbons and minerals now or at any time hereafter situate therein and thereunder, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said real property and also the right to drill for, produce and use water from the said real property in connection with drilling or mining operations thereon, as reserved in the Deed from E. Marx Bandy and Estella M. Bandy, his wife, to Sherman Thomas and Cordelia Thomas, his wife, and Raymond Thomas and Edna Thomas, his wife, dated January 27, 1948, recorded March 24, 1948, Document No. 14770;

ALSO EXCEPT an undivided 1/4th interest in and to all oil, gas and other hydrocarbons and minerals now or at any time hereafter located in, under and upon said land, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said property, and also the right to drill for, produce and use water from the said property in connection with drilling or mining operations thereon, and together with the right of ingress and egress to and from said property for any or all of said purposes, as reserved in the Deed from Sherman Thomas and Cordelia Thomas, his wife, and Raymond Thomas and Edna Thomas, his wife, to Giffen, Inc., a corporation, dated November 1, 1948, recorded January 14, 1949 as Document No 2093,

ALSO EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of

Official Records, Document No. 59452.

PARCEL 7:

The West half of the Northeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT all oil, gas, asphaltum and other hydrocarbon substances and minerals underlying said land, as reserved in the Deed from John M. Moffitt and Elizabeth S. Moffitt, his wife, to Giffen, Inc., dated October 7, 1952, recorded January 19, 1953 in Book 3252 Page 469 of Official Records, Document No. 3061.

PARCEL 8:

The North half of the East half of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPT all oil, gas, petroleum and other hydrocarbon substances and minerals located in, under and upon said property, as reserved in the Deed from Donald L. Lord and Paula Lord, husband and wife, to Giffen Inc., a corporation, dated March 19, 1952, recorded January 19, 1953 in Book 3252 Page 472 of Official Records, Document No. 3063.

PARCEL 9:

The Southwest quarter of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 10:

The South half of the East half of the Southwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all oil, gas, petroleum and other hydrocarbon substances and minerals located in, under and upon said property, as reserved in the Deed dated February 23, 1951 from Bertha G. Briney, single, to Giffen, Inc., a corporation, recorded April 3, 1951 in Book 2995 Page 387 of Official Records, Document No. 19652.

PARCEL 11:

The West half of the Southeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle,

et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 12:

The West half of the Northwest quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

PARCEL 13:

The East half of the Northeast quarter of the Northeast quarter of the Southwest quarter of Section 22, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all of grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Charles A. Dingle, et ux, dated May 16, 1974, recorded August 7, 1974 in Book 6332 Page 455 of Official Records, Document No. 59452.

Deed Exhibit 7

15

CHICAGO TITLE CO.
4504761 4-SCF

Recording Requested By and
When Recorded Return To:

Elizabeth Steinhauer-Clark
Bolen Fransen Sawyers LLP
7405 N. First Street
Fresno, CA 93720

FRESNO County Recorder
Paul Dictos, C.P.A.
DOC- 2015-0044032
Acct 1002-Chicago Title Ins Co ER
Tuesday, APR 14, 2015 15:32:12
Ttl Pd $61.00 Rcpt # 0004292817
CRR/R2/1-15

(SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY)

GRANT DEED

THE UNDERSIGNED GRANTOR DECLARES:

DOCUMENTARY TRANSFER TAX IS $ -0- *(This conveyance is the result of a merger of entities taxed as partnerships, R & T 11925)*
_x Unincorporated Area __ City of ___
__ Computed on full value of interest or property conveyed, or
__ Computed on full value less value of liens or encumbrances remaining at time of sale

Assessor's Parcel Nos. 075-060-65s, -51s, -15s, -62s, -63s, -08s, -09s, -60s; 075-020-54s, -50s, -44s, -45s, 075-100-20s, -11s, -19s, -04, -17, -06; 075-050-43s

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, STUART P. WOOLF, CHRISTOPHER R. WOOLF AND MICHAEL T. WOOLF, Managing Trustees of STUART FARMING TRUST, successor by merger to STUART FARMING CO., a general partnership does hereby GRANT to STUART P. WOOLF, CHRISTOPHER R. WOOLF AND MICHAEL T. WOOLF, Managing Trustees of G3 FARMING TRUST, formerly titled STUART FARMING TRUST the following described real property and improvements, in the County of Fresno, State of California, and more particularly described as follows:

See Exhibit A attached hereto and incorporated herein by this reference.

THIS GRANT IS MADE EXPRESSLY SUBJECT TO ALL ENCUMBRANCES DONE, MADE OR SUFFERED BY THE GRANTORS, OR ANY PERSON CLAIMING UNDER THE GRANTORS.

February 25, 2015

STUART P. WOOLF, as Managing Trustee of the STUART FARMING TRUST created by Declaration of Trust dated December 15, 2010

CHRISTOPHER R. WOOLF, as Managing Trustee of the STUART FARMING TRUST created by Declaration of Trust dated December 15, 2010

MICHAEL T. WOOLF, as Managing Trustee of
the STUART FARMING TRUST created by
Declaration of Trust dated December 15, 2010

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared STUART P. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared CHRISTOPHER R. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared MICHAEL T. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

EXHIBIT A

THE LAND REFERRED TO HEREIN BELOW IS SITUATED UNINCORPORATED AREA, COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: APN 075-060-65s, 51s

The Northeast quarter of the Northeast quarter; and the Northwest quarter of the Northeast quarter of the fractional Section 30, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil, gas, hydrocarbon substances and other minerals as heretofore reserved or conveyed of record.

PARCEL 2: APN 075-020-54s (portion)

The South half of the Northeast quarter of the Southwest quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil, gas, and other hydrocarbons and minerals now or at any time hereafter situate therein and thereunder, together with all easements and rights necessary or convenient for the production, storage and transportation thereof and the exploration and testing of the said real property, and also the right to drill for, produce, and use water from the said real property in connection with the drilling or mining operations thereon, as reserved in the Deed from Myrtle Hanke Bullard, formerly Myrtle Hanke, to W. H. Hawling, dated September 5, 1946 recorded October 30, 1946 as Document No. 74439 in Book 2466, Page 284, Official Records.

PARCEL 3: APN 075-020-54s (portion)

Those portions of the West half of the Southwest quarter, the Southeast quarter of the Southwest quarter and the North half of the Northeast quarter of the Southwest quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, lying South and East of the following described line:

BEGINNING, at the point of intersection of the center line of Los Gatos Creek and the South line of said Section 8, said point being North 90° 00' 00" East, a distance of 1,338.63 feet from the Southwest corner of said Section 8;
thence North 3° 54' 13" West along said center line a distance of 674.00 feet;
thence North 9° 54' 04" East a distance of 339.70 feet;
thence leaving said center line North 89° 52' 51" West, a distance of 221.65 feet;
Thence, North 00 37' 36" West, a distance of 2,271.02 feet;

Thence, North 89° 22' 24" East, a distance of 2,594.39 feet;
Thence, South 00 37' 36" East, a distance of 106.59 feet to a point on the center line of aforementioned Los Gatos Creek;
Thence North 51° 12' 02" East, along said center line, a distance of 935.22 feet;
Thence North 52° 36' 03" East, a distance of 1,038.41 feet to a point on the East line of said Section 8 which lies Southerly, a distance of 878.67 feet from the Northeast corner of said Section 8.

EXCEPTING THEREFROM, all oil, gas and minerals in and under said property, as excepted in the Deed from Eva J. Spears, as Guardian of the person and estate of Annie J. Doherty, an incompetent, to W. H. Hawling and Daisy Hawling, husband and wife, as joint tenants, dated October 19, 1946 as Document No. 83361 in Book 2451, Page 398, Official Records.

PARCEL 4: APN 075-020-50s (portion)

That portion of the Northeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, lying South and East of the following described line:

BEGINNING, at the point of intersection of the center line of Los Gatos Creek and the South line of said Section 8, said point being North 90° 00' 00" East, a distance of 1,338.63 feet from the Southwest corner of said Section 8;
Thence, North 3° 54' 13" West along said center line a distance of 674.00 feet;
Thence, North 9° 54' 04" East a distance of 339.70 feet;
Thence, leaving said center line North 89° 52' 51" West, a distance of 221.65 feet;
Thence, North 00 37' 36" West, a distance of 2,271.02 feet;
Thence, North 89° 22' 24" East, a distance of 2,594.39 feet;
Thence, South 00 37' 36" East, a distance of 106.59 feet to a point on the center line of aforementioned Los Gatos Creek;
Thence, North 51° 12' 02" East, along said center line, a distance of 935.22 feet;
Thence, North 52° 36' 03" East, a distance of 1,038.41 feet to a point on the East line of said Section 8 which lies Southerly, a distance of 878.67 feet from the Northeast corner of said Section 8.

EXCEPTING THEREFROM, all oil, gas, petroleum, naptha, and other hydrocarbon substances and minerals of whatsoever kind and nature, in, upon, or beneath said land, together with the reservation of the right of entry and easements which may be necessary for development, production and removal of all such substances and minerals as such may be appropriate to the full enjoyment of Grantor's interest which was reserved in the Deed from Stuart P. Woolf, recorded December 2, 1986 as Document No. 86139536, Official Records.

PARCEL 5: APN 075-020-50s (portion)

That portion of the Northwest quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of

California according to the Official Plat thereof, lying South and East of the following described line:

Beginning at the point of intersection of the center line of Los Gatos Creek and the South line of said Section 8, said point being North 900 00' 00" East, a distance of 1,338.63 feet from the Southwest corner of said Section 8;
Thence, North 3° 54' 13" West along said center line a distance of 674.00 feet;
Thence, North 9° 54' 04" East a distance of 339.70 feet;
Thence, leaving said center line North 89° 52' 51" West, a distance of 221.65 feet;
Thence, North 00 37' 36" West, a distance of 2,271.02 feet;
Thence, North 89° 22' 24" East, a distance of 2,594.39 feet;
Thence, South 00 37' 36" East, a distance of 106.59 feet to a point on the center line of aforementioned Los Gatos Creek;
Thence, North 51° 12' 02" East, along said center line, a distance of 935.22 feet;
Thence, North 52° 36' 03" East, a distance of 1,038.41 feet to a point on the East line of said Section 8 which lies Southerly, a distance of 878.67 feet from the Northeast corner of said Section 8.

EXCEPTING THEREFROM, all oil, gas, petroleum, naptha, and other hydrocarbon substances and minerals of whatsoever kind and nature, in, upon, or beneath said land, together with the reservation of the right of entry and easements which may be necessary for development, production and removal of all such substances and minerals as such may be appropriate to the full enjoyment of Grantor's interest which was reserved in the Deed from Stuart P. Woolf, recorded December 2, 1986 as Document No. 86139536, Official Records.

PARCEL 6: APN 075-020-44s

The Southeast quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, one-half of all oil, gas, minerals and other hydrocarbons in and under said land, as reserved in the Deeds from Ernest H. Ladd, Alice Wilson, June M. Ferroni, Rose Marie Woody, Carolyn Cozad, Mary Kraus, Elmer S. Ladd, Jr. and Wilma I. Martin, recorded March 12, 1976 as Document No's 20767, 20768 and 20769, in Book 6563, Pages 386, 388, and 390, all of Official Records.

PARCEL 7: APN 075-020-45s

The North half of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, one-half of all oil, gas, minerals and other hydrocarbons in and under said land, as reserved in the Deeds from Ernest H. Ladd, Alice Wilson, June M. Ferroni, Rose Marie Woody, Carolyn Cozad, Mary Kraus, Elmer S. Ladd, Jr. and Wilma I. Martin,

recorded March 12, 1976 as Document No's 20767, 20768 and 20769, in Book 6563, Pages 386, 388, and 390, all of Official Records.

PARCEL 8: APN 075-100-20s (portion)

All that portion of the West half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, described as follows:

BEGINNING, at a point 521.78 feet West of the Northeast corner of the West half of the Southwest quarter of the Southeast quarter of said Section 8;
Thence, South parallel to the West line of the Southwest quarter of the Southeast quarter 208.71 feet;
Thence, West parallel to the North line of said Southwest quarter of the Southeast quarter 52.18 feet;
Thence, North parallel to said West line 208.71 feet to a point on the North line of said Southwest quarter of the Southeast quarter;
Thence, East along said North line 52.18 feet to the point of beginning.

EXCEPTING THEREFROM, all oil, gas and minerals situate therein and thereunder, as reserved in the Deed by Alvera Elvert McDonald, recorded March 20, 1974 as Document No. 20425.

PARCEL 9: APN 075-100-20s (portion)

All that portion of the West half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, described as follows:

BEGINNING, at a point 660 feet North of the Southeast corner of the West half of the Southwest quarter of the Southeast quarter;
Thence, North to a point 208.71 feet South of the North line of the West half of the Southwest quarter of the Southeast quarter;
Thence, West 573.96 feet;
Thence, North 208.71 feet;
Thence, West along the North line to the Northwest corner (of said West half of the Southwest quarter of the Southeast quarter);
Thence, South along the West line of said West half of the Southwest quarter of the Southeast quarter, 880 feet;
Thence, East 220 feet;
Thence, North 220 feet;
Thence, East 440 feet to the point of beginning.

EXCEPTING THEREFROM, all of Grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Anthony P. Meier as Trustee of the

Hockey Farm Trust, recorded August 8, 1974, in Book 6333, Page 375, of Official Records, as Document No. 59826.

PARCEL 10: APN 075-100-20s (portion)

The South 3/10ths of the North half of the East half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Anthony P. Meier as Trustee of the Hockey Farm Trust, recorded August 8, 1974, in Book 6333, Page 375, of Official Records, as Document No. 59826.

PARCEL 11: APN 075-100-20s (portion)

The South 660 feet of the West half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, the East 198 feet of the North 220 feet.

ALSO EXCEPTING THEREFROM, the West 220 feet of the North 220 feet.

ALSO EXCEPTING THEREFROM, the South 190.74 feet.

ALSO EXCEPTING THEREFROM, all of Grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Anthony P. Meier as Trustee of the Hockey Farm Trust, recorded August 8, 1974, in Book 6333, Page 375, of Official Records, as Document No. 59826.

PARCEL 12: APN 075-100-20s (portion)

The South half of the North two-fifths of the West half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all of the oil, gas, minerals and hydrocarbon substances in, on or under the surface of said land and all the rights of ownership therein, together with the right and license of exploring, mining, developing or operating or leasing for any or all of said products upon said lands, and further reserving all income from said substances or rental upon leases of said land for the exploring and production of said substances and all royalties or rentals payable under any lease of said lands for said purposes heretofore or hereafter made, as reserved in the

Deed from Tom Boardman, to Giffen, Inc., a California Corporation, recorded January 16, 1974 as Document No. 3997.

PARCEL 13: APN 075-100-20s (portion)

The North one-fifth of the West half of the Southeast quarter of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all of the oil, gas, minerals and hydrocarbon substances in, on or under the surface of said land and all the rights of ownership therein, together with the right and license of exploring, mining, developing or operating or leasing for any or all of said products upon said lands, and further reserving all income from said substances or rental upon leases of said land for the exploring and production of said substances and all royalties or rentals payable under any lease of said lands for said purposes heretofore or hereafter made, as reserved in the Deed from Tom Boardman, to Giffen, Inc., a California Corporation, recorded January 16, 1974 as Document No.

PARCEL 14: APN 075-100-20s (portion)

The South 2 acres of the West half of the Northeast quarter of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all of the oil, gas, minerals and hydrocarbon substances in, on or under the surface of said land and all the rights of ownership therein, together with the right and license of exploring, mining, developing or operating or leasing for any or all of said products upon said lands, and further reserving all income from said substances or rental upon leases of said land for the exploring and production of said substances and all royalties or rentals payable under any lease of said lands for said purposes heretofore or hereafter made, as reserved in the Deed from Tom Boardman, to Giffen, Inc., a California Corporation, recorded January 16, 1974 as Document No. 3997.

PARCEL 15: APN 075-100-20s (portion)

The North three-fifths of the West half of the Northeast quarter of the Southwest quarter of the Southeast quarter, and the South half of the North two-fifths of the East half of the Northeast quarter of the Southwest quarter of the Southeast quarter, and the North half of the South six-tenths of the East half of the Northeast quarter of the Southwest quarter of the Southeast quarter, all in Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all of Grantor's right, title and interest in and to all oil, gas and minerals, as reserved in the Deed from Giffen, Inc., to Anthony P. Meier as Trustee of the Hockey Farm Trust, recorded August 8, 1974, in Book 6333, Page 375, of Official Records, as Document No. 59826.

PARCEL 16: APN 075-100-20s (portion)

The North one-third of the South three-fifths of the West half of the South half of the East half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof..

EXCEPTING THEREFROM, all oil, gas, hydrocarbon substances and other minerals therein or thereunder, as reserved in the Deed from William Kobielush to Giffen Inc., a corporation, recorded June 24, 1968, in Book 5582, Page 547 of Official Records as Document No. 43574.

PARCEL 17: APN 075-100-11

The North one-fifth of the East half of the Southeast quarter of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

PARCEL 18: APN 075-100-19s (portion)

The West half of the North one-fifth of the East half of the Northeast quarter of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil, gas, and other hydrocarbon substances in and under said land, reserved by Joe Palacios and Sabina Palacios in the deed recorded June 20, 1991, as Document No. 91073434, Official Records.

PARCEL 19: APN 075-100-19s (portion)

The East half of the North 1/5 of the East half of the Northeast quarter of the Southwest quarter of the Southeast quarter in Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil, gas, minerals and other hydrocarbon substances in and under said land, as reserved in the Deed recorded November 2, 1990, as Document No. 90135104.

PARCEL 20: APN 075-100-04

That portion of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, described as follows:

BEGINNING, at a point 242.58 feet East of the Northwest corner of the West half of the Southwest quarter of the Southeast quarter of said Section 8;
Thence, South 208.71 feet;
Thence, East 104.355 feet;
Thence, North 208.71 feet;
Thence, West 104.355 feet to the POINT OF BEGINNING,

PARCEL 21: APN 075-100-17

That portion of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, described as follows:

BEGINNING, at the Southwest corner of the Southeast one-quarter of said Section 8;
Thence, East 660 feet;
Thence, at right angles North 190.74 feet;
Thence, at right angles West 660 feet;
Thence, at right angles South 190.74 feet to the POINT OF BEGINNING.

PARCEL 22: APN 075-060-15s

The Southeast quarter of Section 28, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil, gas, petroleum and other hydrocarbon substances and minerals located in, under and upon said property, together with the right to go upon said property at any time hereafter for the purpose of developing and extracting oil, gas, minerals and other hydrocarbon substances from said land, and to erect and construct upon said land any and all equipment, derricks, telephone and telegraph lines, storage tanks, and any and all things necessary or incidental to the exploration and development of said land for oil, gas and other hydrocarbon substances and minerals, together with the rights of way for passage over, upon and across, and egress and ingress to and from said land for any or all of the above purposes; upon the conditions and provisions set for therein, as reserved in the deed from Eugene A. Millsap, a widower, recorded October 7, 1947, in Book 2559, Page 362 of Official Records, as Document No. 51503.

PARCEL 23: APN 075-060-62s, 63s

The Northwest quarter of Section 28, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, an undivided 33-1/3% of all oil, gas, other hydrocarbons and minerals in and under said land, as reserved to Harold Gravem, in the deed dated August 30, 1957, recorded October 1, 1957, in Book 3977 Page 390, Official Records, Document No. 66117;

ALSO EXCEPTING THEREFROM, an undivided 51-2/3% of 100% of all oil, gas, other hydrocarbons and minerals in and under said land, as reserved to Orrin L. Gravem and Lloyd Goeppert in the Deed dated October 15, 1957, recorded October 17, 1957, in Book 3983 Page 281 of Official Records, Document No. 69587.

ALSO EXCEPTING THEREFROM, all of the grantor's right, title and interest in and to all oil, gas and minerals as reserved in the deed from Russell Giffen and Ruth P. Giffen, husband and wife to Jerry McKiney and Ida McKiney, husband and wife, as community property, dated May 15, 1974, recorded August 7, 1974, in Book 6332 Page 462 of Official Records, Document No. 59459.

PARCEL 24: APN 075-050-43s

The Northwest quarter of Section 15, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, as per PARCEL MAP WAIVER No. 88-05, recorded March 9, 1989, as Document No. 89025016.

EXCEPTING THEREFROM, that portion of a 200 foot wide strip of land as reserved in the Deed recorded July 22, 1930 in Book 1095, Page 496 of Official Records.

ALSO EXCEPTING THEREFROM, all of the minerals and mineral ores of every kind and character now known to exist or hereafter discovered upon, within or underlying the hereinabove described property or that may be produced therefrom, including, without limiting the generality of the foregoing, all oil, natural gas and hydrocarbon substances, geothermal steam, brines and minerals in solution, and sand, gravel and aggregates, and products derived therefrom, together with the exclusive and perpetual right of said Grantee, its successors and assigns, of ingress and egress in, upon or over said property to explore and prospect for, extract, develop, save, convey, store, refine, process and remove the same and to make such use of said property and the surface thereof as is necessary or useful in connection therewith, which use may include the sinking, boring, digging or drilling of wells, shafts or tunnels, excavating, open pit mining and constructing, maintaining and removing roads, ways, pipe lines, pole lines, tanks, buildings, structures and facilities, as granted to Bravo Oil Company in the Deed recorded December 29, 1965, in Book 5257, Page 19 of Official Records, as Document No. 104215.

PARCEL 25: APN 075-060-08s

The West half of the Southwest quarter of the Northeast quarter of the fractional Section 30, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, an undivided 2% interest in and to all oil, gas and other minerals in and under said property. Also except all of grantor's right, title and interest in and to all minerals, including oil, gas, other hydrocarbons, associated substances, sulphur, nitrogen, carbon dioxide, helium, geothermal steam and other commercially valuable substances, whether or not similar to the above mentioned substances, as reserved in the deed from Joseph A. Hickey and Patricia M. Hickey, husband and wife; Thomas J. Hickey, Jr., and Patricia A. Hickey, husband and wife; James H. Hickey and Frances T. Hickey, husband and wife, and Miss Mary C. Hickey, recorded May 18, 1976, in Book 6595 Page 616 of Official Records, Document No. 41575.

PARCEL 26: APN 075-060-09s

The East half of the Southwest quarter of the Northeast quarter of the fractional Section 30, Township 30 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all minerals, including oil, gas, other hydrocarbons, associated substances, sulphur, nitrogen, carbon dioxide, helium, geothermal steam and other commercially valuable substances, as heretofore reserved of record.

PARCEL 27: APN 075-100-06

The North 208.71 feet of the East 208.71 feet of the West half of the Southwest quarter of the Southeast quarter of Section 8, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

PARCEL 28: APN 075-060-60s

The Southeast quarter of the Northeast quarter of the fractional Section 30, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all oil and gas deposits in said land, together with the right of the United States or persons authorized by it, to prospect for and remove such oil and gas deposits from said land, upon compliance with these conditions and subject to the provisions and limitations of the act of Congress approved July 17, 1914, (38 Stat. 509) and acts amendatory thereto, as excepted and reserved to the United States in Indemnity List No. 200 approved October 8, 1941, and as set forth in the patent from the State of California to S. C. Sample, recorded December 31, 1941, as Document No. 44244, Official Records.

ALSO EXCEPTING THEREFROM, an undivided 1/16 of all coal and other mineral deposits (excepting oil and gas), as reserved to the State of California in the patent to S. C. Sample, recorded December 31, 1941, as Document No. 44244, Official Records, together with the right in favor of the State and persons authorized by it, to prospect for, mine and remove such deposits of coal and other minerals from said land, and to occupy and use so much of the surface of said land as may be required therefor upon compliance with the conditions and subject to the provisions and limitations of Chapter 5, Part I, Division 6 of the Public Resources Code.

ALSO EXCEPTING THEREFROM, unto Zenora Adeline Scott 7/16 of all coal and other mineral deposits, except all oil and gas deposits, as reserved in the deed recorded December 11, 1974, in Book 6376 Page 296 of Official Records.

Deed Exhibit 8

Recording Requested By and
When Recorded Return To:

Hal H. Bolen II
Bolen Fransen Sawyers LLP
7405 N First Street
Fresno, CA 93720

FRESNO County Recorder
Paul Dictos, C.P.A.
DOC- 2013-0172769
Check Number 22203
Thursday, DEC 26, 2013 10:12:59
Ttl Pd $28.00 Rcpt # 0004028744
RGR/R4/1-4

(SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY)

GRANT DEED

THE UNDERSIGNED GRANTORS DECLARE:

DOCUMENTARY TRANSFER TAX IS $ -0- R&T Code 11925(d)

Assessor's Parcel Nos.: 075-040-38s, 075-040-39s and 075-060-52s

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, CALIFORNIA VALLEY LAND CO., INC., a California corporation, does hereby GRANT to WOOLF PROPERTIES, a California corporation, the real property, located in the County of Fresno, State of California, and more particularly described as set forth on Exhibit A attached hereto and incorporated herein by this reference.

THIS GRANT IS MADE EXPRESSLY SUBJECT TO ALL ENCUMBRANCES DONE, MADE OR SUFFERED BY THE GRANTORS, OR ANY PERSON CLAIMING UNDER THE GRANTORS.

Dated: ~~12/23~~ 12/20/13, 2013

CALIFORNIA VALLEY LAND CO., INC., a California corporation

By _____
STUART WOOLF, President

By _____
PAUL FANELLI, Secretary

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SO SHOWN, MAIL AS DIRECTED ABOVE.
WOOLF PROPERTIES, 7041 N. Van Ness Ave., Fresno, California 93711

EXHIBIT A

Parcel 1:

The East 515 feet of the North half of Section 16, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the United States Government Township Plat approved by the Surveyor General on February 28, 1855; lying South of that portion thereof conveyed by William Anderson to Pacific Improvement Company, a corporation, by deed dated October 17, 1887, recorded December 8, 1887 in Book 65 Page 44 of Deeds, and by the Pacific Improvement Company to Southern Pacific Railroad Company, a corporation, by deed dated October 16, 1893, and recorded July 2, 1894, in Book 176 Page 100 of Deeds, as follows: A strip of land 100 feet wide lying equally on each side of the located line of the Goshen Division (West of Huron) of the Southern Pacific Company's Railroad where the same is located through the North half of said Section 16, being more particularly described as follows: Beginning for the same at a point on the center line between Sections 9 and 16, Township 20 South, Range 17 East, a short distance West of the Section post, the common corner of Sections 9, 10, 15 and 16, Township 20 South, Range17 East, and running thence Southwesterly along said center line of said Goshen Division of the Southern Pacific Railroad, embracing, a strip of land 50 feet wide on each side of said center line to a point a short distance North of the quarter post between Sections 16 and 17, Township 20 South, Range 17 East, upon the section line North and South, a distance 5450 feet, more or less.

APN 075-040-39s

Parcel 2:

The East 515 feet of the South half of Section 16, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

EXCEPTING THEREFROM all oil, gas, minerals, and other hydrocarbon substances as heretobefore reserved of record.

APN: 075-040-38s

Parcel 3:

The Northeast quarter of Section 28, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, according to the Official Plat thereof.

Except an undivided 33-1/3% of all oil, gas, other hydrocarbons and minerals in and under said land, as reserved to Harold Gravem, in the deed dated August 30, 1957, recorded October 1, 1957, in Book 3977 Page 390, Official Records, Document No. 66117;

Also except an undivided 51-2/3% of 100% of all oil, gas, other hydrocarbons and minerals in and under said land, as reserved to Orrin L. Gravem and Lloyd Goeppert in the Deed dated October 15, 1957, recorded October 17, 1957, in Book 3983 Page 281 of Official Records, Document No. 69587.

ALSO EXCEPTING THEREFROM all of the grantor's right, title and interest in and to all oil, gas and minerals as reserved in the deed from Russell Giffen and Ruth P. Giffen, husband and wife to John L. Woolf, et ux, dated May 15, 1974, recorded August 7, 1974, in Book 6332 Page 446 of Official Records, Document No. 59447.

APN: 075-060-52s

Acknowledgment

STATE OF California)
) ss.
COUNTY OF Fresno)

On ~~12/23~~ 12/23, 2013, before me, Betty Gowens,
Notary Public, personally appeared STUART WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Betty Gowens (Seal)

BETTY GOWENS
Commission # 1872580
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2014

STATE OF California)
) ss.
COUNTY OF Fresno)

On 12/20, 2013, before me, Betty Gowens,
Notary Public, personally appeared PAUL FANELLI, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Betty Gowens (Seal)

BETTY GOWENS
Commission # 1872580
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2014

Deed Exhibit 9

6

CHICAGO TITLE CO.
4504761-4-SCF

Recording Requested By and
When Recorded Return To:

Elizabeth Steinhauer-Clark
Bolen Fransen Sawyers LLP
7405 N. First Street
Fresno, CA 93720

FRESNO County Recorder
Paul Dictos, C.P.A.
DOC- 2015-0044030
Acct 1002-Chicago Title Ins Co ER
Tuesday, APR 14, 2015 15:31:56
Ttl Pd $34.00 Rcpt # 0004292815
CRR/R2/1-6

(SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY)

GRANT DEED

THE UNDERSIGNED GRANTOR DECLARES:

DOCUMENTARY TRANSFER TAX IS $ -0- *(This conveyance is the result of a merger of entities taxed as partnerships, R & T 11925)*
_x Unincorporated Area __ City of ___
__ Computed on full value of interest or property conveyed, or
__ Computed on full value less value of liens or encumbrances remaining at time of sale

Assessor's Parcel Nos. 075-050-48S and 075-070-01S

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, STUART P. WOOLF, CHRISTOPHER R. WOOLF AND MICHAEL T. WOOLF, Managing Trustees of GRAVES FARMING TRUST, successor by merger to GRAVES FARMING CO., a general partnership, does hereby GRANT to STUART P. WOOLF, CHRISTOPHER R. WOOLF AND MICHAEL T. WOOLF, Managing Trustees of G3 FARMING TRUST, formerly titled STUART FARMING TRUST the following described real property and improvements, in the County of Fresno, State of California, and more particularly described as follows:

See Exhibit A attached hereto and incorporated herein by this reference.

THIS GRANT IS MADE EXPRESSLY SUBJECT TO ALL ENCUMBRANCES DONE, MADE OR SUFFERED BY THE GRANTORS, OR ANY PERSON CLAIMING UNDER THE GRANTORS.

February 25, 2015

STUART P. WOOLF, as Managing Trustee of the GRAVES FARMING TRUST created by Declaration of Trust dated December 15, 2010

CHRISTOPHER R. WOOLF, as Managing Trustee of the GRAVES FARMING TRUST created by Declaration of Trust dated December 15, 2010

MICHAEL T. WOOLF, as Managing Trustee of
the GRAVES FARMING TRUST created by
Declaration of Trust dated December 15, 2010

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared STUART P. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared CHRISTOPHER R. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Acknowledgment

STATE OF California)
) ss
COUNTY OF Fresno)

On 2/25, 2015, before me, Betty J. Gowens, Notary Public, personally appeared MICHAEL T. WOOLF, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. (SEAL)

Signature Betty J. Gowens

BETTY J. GOWENS
Commission # 2050794
Notary Public - California
Fresno County
My Comm. Expires Jan 1, 2018

EXHIBIT A

THE LAND REFERRED TO HEREIN BELOW IS SITUATED UNINCORPORATED AREA, COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: APN 075-050-48s

The South half of Section 15, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof, as per PARCEL MAP WAIVER No. 88-05, recorded March 9, 1989, as Document No. 89025016.

EXCEPTING THEREFROM, a parcel of land in the Southeast quarter of Section 15, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, as conveyed to Pacific Gas and Electric Company, by deed recorded October 20, 1954, in Book 3507, Page 536 of Official Records, as Document No. 64300, which is bounded by a line which is described as follows:

BEGINNING, at a point in the Easterly boundary line of said Section 15, distant thereon 1479.73 feet Northerly from the Southeast corner of said Section 15 and runs thence Westerly, at a right angle to the Easterly line of said Section 15, 330.0 feet;
Thence, Northerly, parallel with said Easterly line, 350.0 feet;
Thence, Easterly, at a right angle to said Easterly line 330.0 feet to said Easterly line;
Thence, Southerly, along said Easterly line, 350.0 feet to the POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM, that portion conveyed to the State of California in the Deed recorded May 14, 2004 as Document No. 2004-0106486, Official Records.

ALSO EXCEPTING THEREFROM, all of the minerals and mineral ores of every kind and character now known to exist or hereafter discovered upon, within or underlying the hereinabove described property or that may be produced therefrom, including, without limiting the generality of the foregoing, all oil, natural gas and hydrocarbon substances, geothermal steam, brines and minerals in solution, and sand, gravel and aggregates, and products derived therefrom, together with the exclusive and perpetual right of said Grantee, its successors and assigns, of ingress and egress in, upon or over said property to explore and prospect for, extract, develop, save, convey, store, refine, process and remove the same and to make such use of said property and the surface thereof as is necessary or useful in connection therewith, which use may include the sinking, boring, digging or drilling of wells, shafts or tunnels, excavating, open pit mining and constructing, maintaining and removing roads, ways, pipe lines, pole lines, tanks, buildings, structures and facilities, as granted to Bravo Oil Company in the Deed recorded December 29, 1965, in Book 5257, Page 19 of Official Records, as Document No. 104215.

PARCEL 2: APN 075-070-01s

Section 27, Township 20 South, Range 17 East, Mount Diablo Base and Meridian, in the unincorporated area of the County of Fresno, State of California according to the Official Plat thereof.

EXCEPTING THEREFROM, all of the minerals and mineral ores of every kind and character now known to exist or hereafter discovered upon, within or underlying the hereinabove described property or that may be produced therefrom, including, without limiting the generality of the foregoing, all oil, natural gas and hydrocarbon substances, geothermal steam, brines and minerals in solution, and sand, gravel and aggregates, and products derived therefrom, together with the exclusive and perpetual right of said Grantee, its successors and assigns, of ingress and egress in, upon or over said property to explore and prospect for, extract, develop, save, convey, store, refine, process and remove the same and to make such use of said property and the surface thereof as is necessary or useful in connection therewith, which use may include the sinking, boring, digging or drilling of wells, shafts or tunnels, excavating, open pit mining and constructing, maintaining and removing roads, ways, pipe lines, pole lines, tanks, buildings, structures and facilities, as granted to Bravo Oil Company in the Deed recorded December 29, 1965, in Book 5257, Page 19 of Official Records, as Document No. 104215.

Deed Exhibit 10

RECORDING REQUESTED BY

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE UNOWN BELOW, MAIL TAX STATEMENTS TO:

NAME
ADDRESS Woolf Family Trust Nc. I
CITY & STATE ZIP P.O. Box 995 Huron, CA 93234

Title Order No. Escrow No.

88071547

RECORDED IN OFFICIAL RECORDS OF FRESNO COUNTY, CALIFORNIA
AT 25 MIN PAST 2 PM
JUN 30 1988
GALEN LARSON, County Recorder
FEE $5

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned declares that the documentary transfer tax is $ -0- and is
☐ computed on the full value of the interest or property conveyed, or is
☒ computed on the full value less the value of liens or encumbrances remaining thereon at the time of sale. The land, tenements or realty is located in
☒ unincorporated area ☐ city of ..... and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

ANNE A. DELAWARE and MICHAEL T. WOOLF, co-trustees of the ELIZABETH STUART FRANSON TRUS

hereby GRANT(S) to

C. A. DINGLE, ANNE A. DELAWARE and CHRISTOPHER R. WOOLF, as co-trustees OF the WOOLF FAMILY TRUST NO. I

the following described real property in the county of Fresno, state of California:

The Northeast Quarter of Section 34, Township 20 South, Range 17 East, M.D.B.&M., according tothe Official Plat thereof.

EXCEPTING THEREFROM all minerals, oil, gas and other hydrocarbons, associated substances, sulphur, nitrogen and other commercially valuable substances, as heretobefore reserved of record.

Portions of 075-070-195 & 205

Dated

Anne A. Delaware Co Trustee
Anne A. Delaware

Michael T. Woolf Co Trustee
Michael T. Woolf

STATE OF CALIFORNIA
COUNTY OF Fresno

On this 22nd day of June in the year 1988, before me MARY L. LABBE, a Notary Public, State of California, duly commissioned and sworn, personally appeared MICHAEL T. WOOLF and ANNE A. DELAWARE, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the State of California County of Fresno on the date set forth above in this certificate.

OFFICIAL SEAL
MARY L. LABBE
NOTARY PUBLIC-CALIFORNIA
PRINCIPAL OFFICE IN
FRESNO COUNTY
My Commission Expires July 12, 1989

Parcel: Portions of 075-070-195-205

Mary L Labbe
Notary Public, State of California

My commission expires July 12, 1989

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Cowdery's Form No. 32—Acknowledgement to Notary Public-Individuals (c.c. sec. 1189.)

FRESNO COUNTY RECORDERS OFFICE JUN 30 1988

APPENDIX F
Historical Records

Fifth Standard Property

Fifth Standard Property

Huron, CA 93234

Inquiry Number: 5068323.12

October 09, 2017

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:

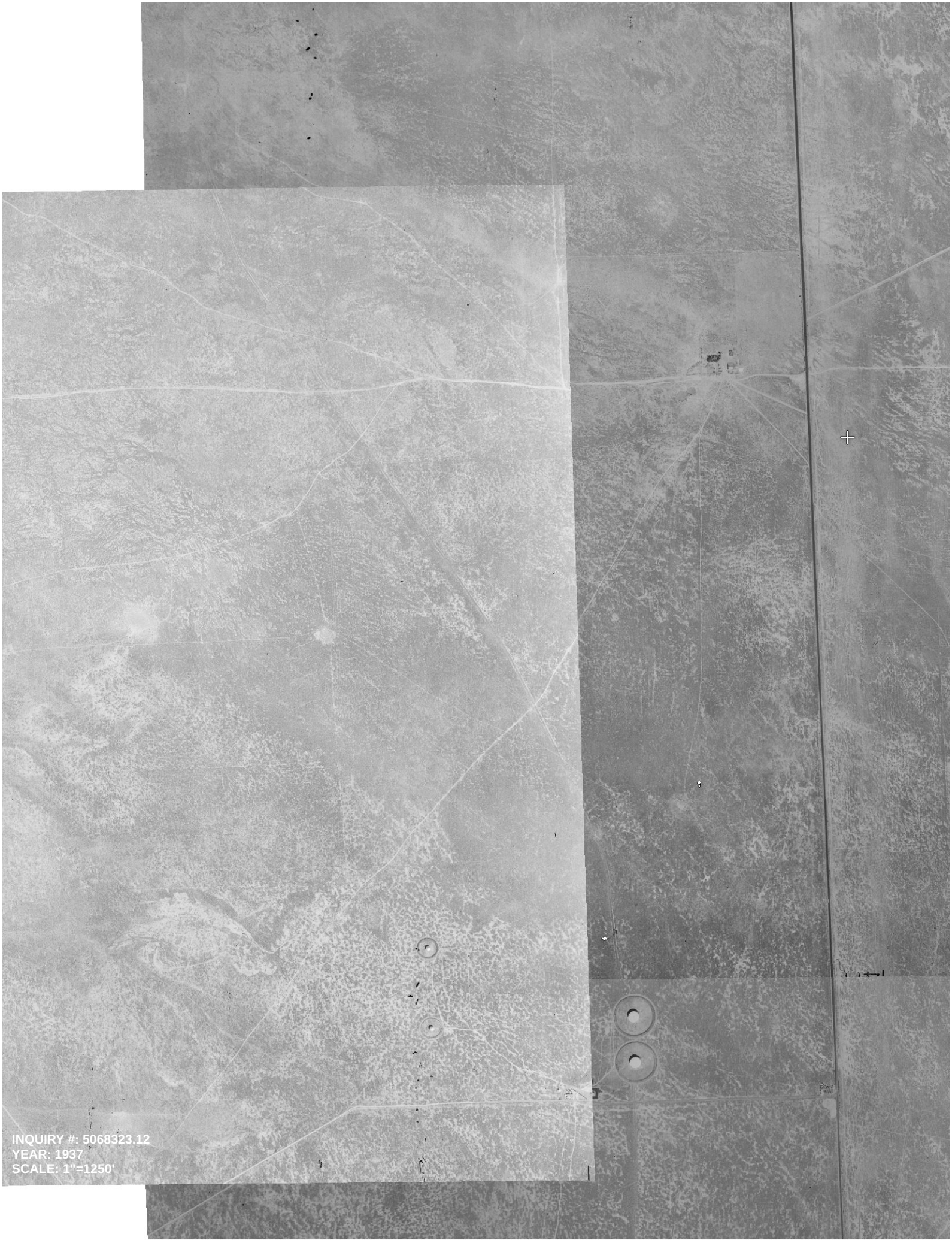
Aerial Photography October 09, 2017

Target Property:

Fifth Standard Property

Huron, CA 93234

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1937	USDA
1950	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1950	USDA
1955	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1955	USGS
1960	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1960	USGS
1967	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1967	USDA
1973	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1973	USDA
1981	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1981	USDA
1994	Aerial Photograph. Scale: 1"=1250'	Flight Year: 1994	DOQQ_USGS
2005	Aerial Photograph. Scale: 1"=1250'	Flight Year: 2005	NAIP_USGS
2010	Aerial Photograph. Scale: 1"=1250'	Flight Year: 2010	NAIP_USGS
2012	Aerial Photograph. Scale: 1"=1250'	Flight Year: 2012	NAIP_USGS
2014	Aerial Photograph. Scale: 1"=1250'	Flight Year: 2014	NAIP_USGS

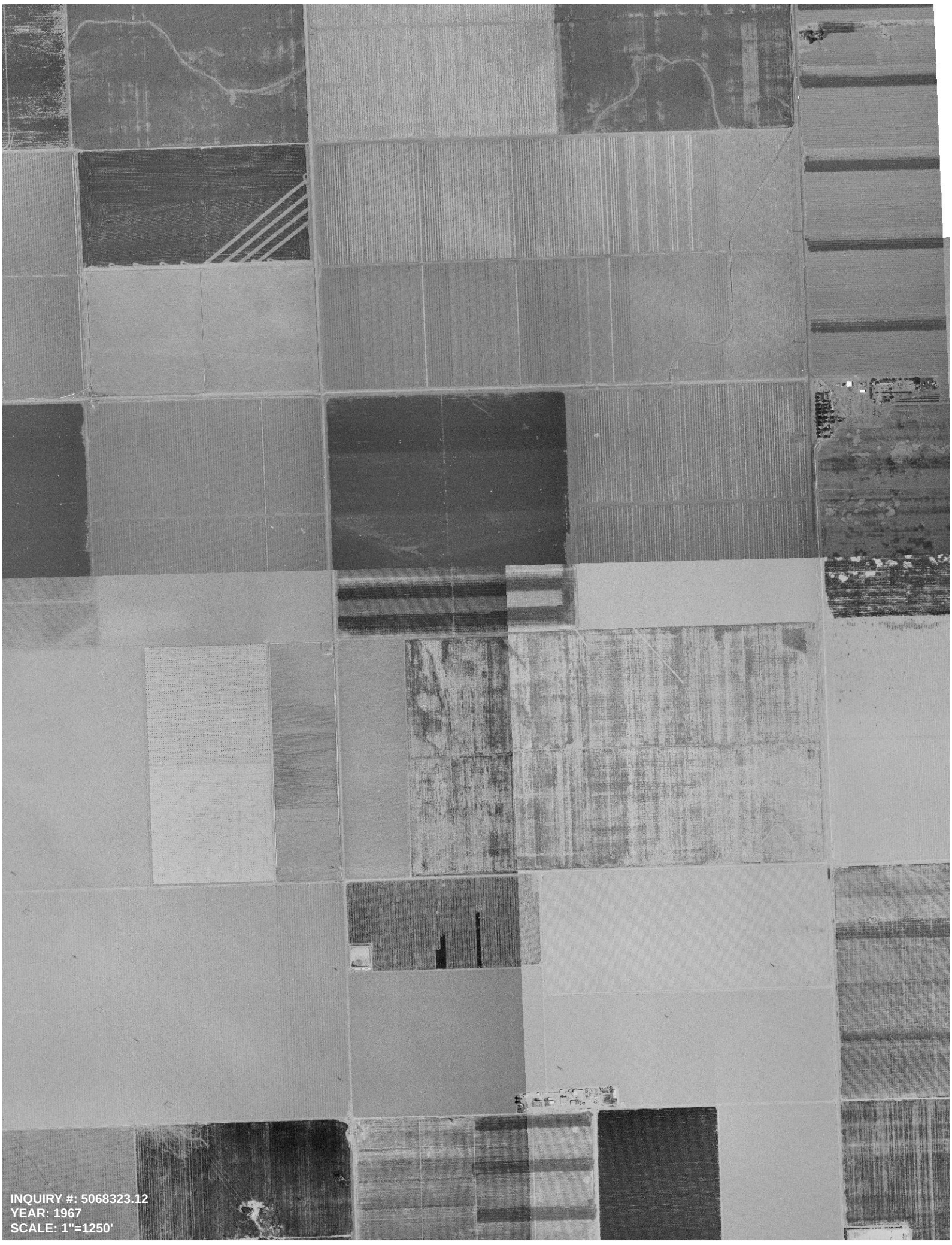

INQUIRY #: 5068323.12
YEAR: 1937
SCALE: 1"=1250'


INQUIRY #: 5068323.12
YEAR: 1950
SCALE: 1"=1250'


INQUIRY #: 5068323.12
YEAR: 1955
SCALE: 1"=1250'



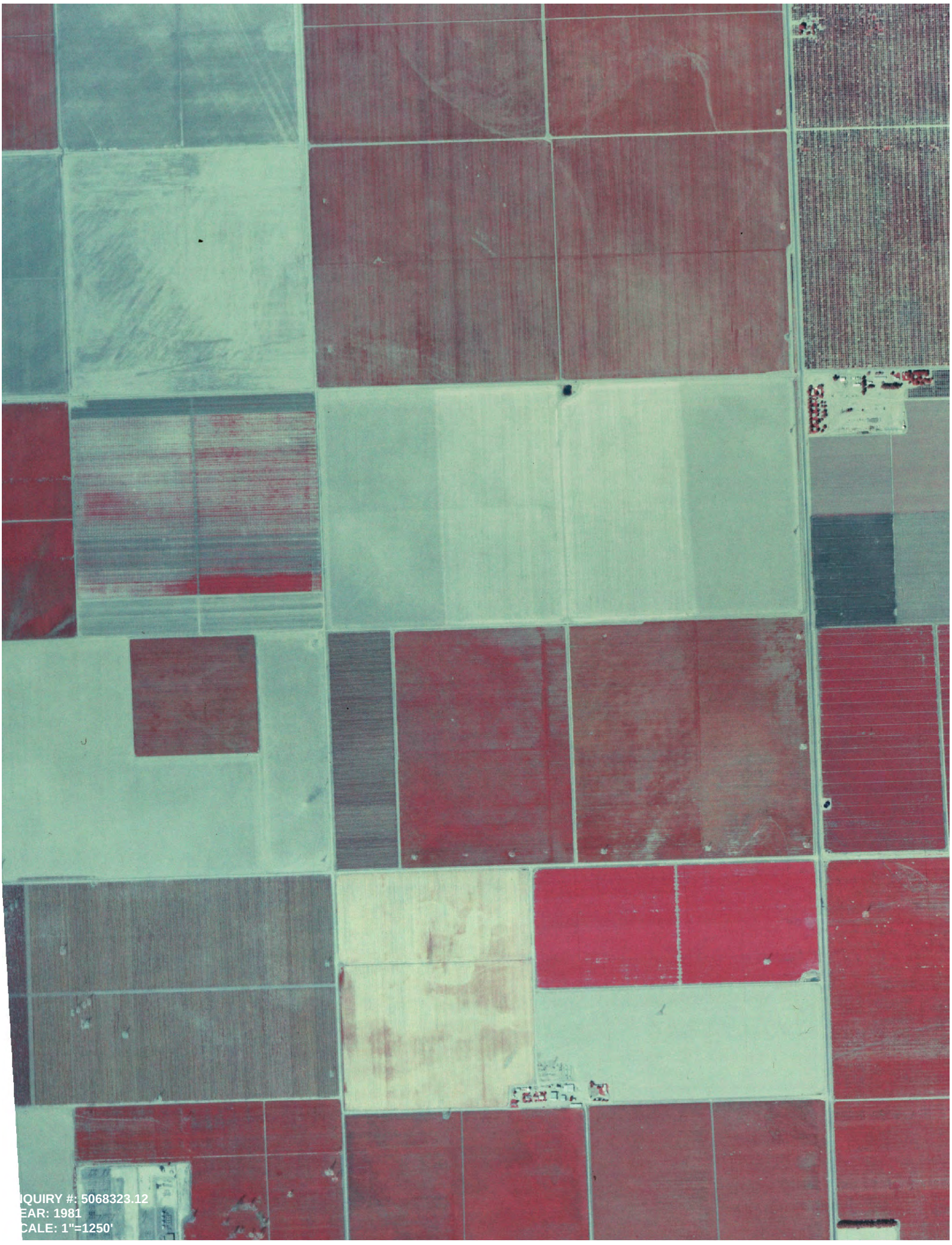
INQUIRY #: 5068323.12
YEAR: 1960
SCALE: 1"=1250'

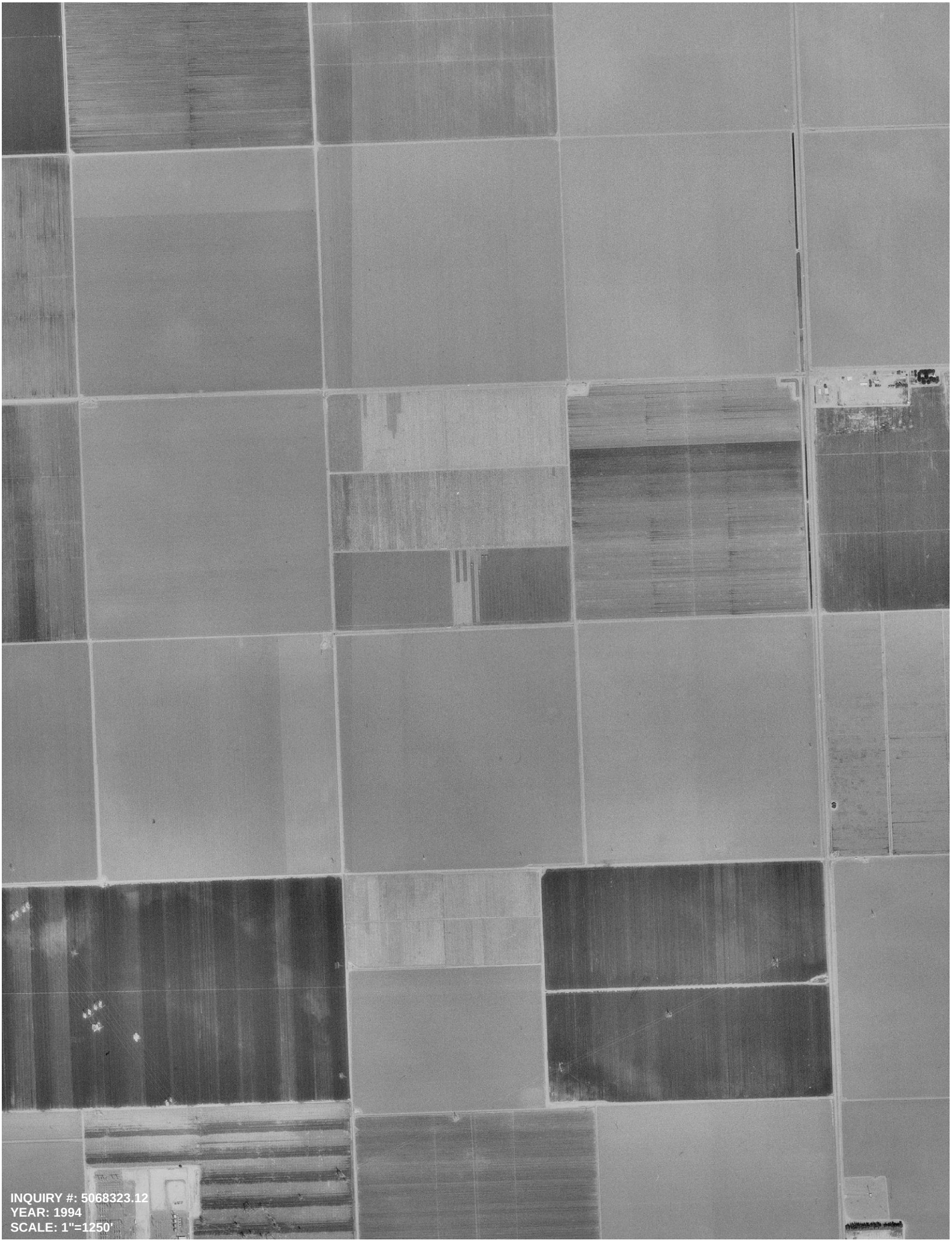


INQUIRY #: 5068323.12
YEAR: 1967
SCALE: 1"=1250'



INQUIRY #: 5068323.12
YEAR: 1973
SCALE: 1"=1250'


QUIRY #: 5068323.12
EAR: 1981
CALE: 1"=1250'



INQUIRY #: 5068323.12
YEAR: 1994
SCALE: 1"=1250'



INQUIRY #: 5068323.12
YEAR: 2005
SCALE: 1"=1250'


INQUIRY #: 5068323.12
YEAR: 2010
SCALE: 1"=1250'


INQUIRY #: 5068323.12
YEAR: 2012
SCALE: 1"=1250'


INQUIRY #: 5068323.12
YEAR: 2014
SCALE: 1"=1250'

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234

Inquiry Number: 5068323.5
October 06, 2017

The EDR-City Directory Image Report

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

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

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*
2013	☐	☑	Cole Information Services
2008	☐	☑	Cole Information Services
2003	☐	☑	Cole Information Services
1999	☐	☑	Cole Information Services
1995	☐	☑	Cole Information Services
1992	☐	☑	Cole Information Services
1990	☐	☑	Haines Criss-Cross Directory
1985	☐	☑	Haines Criss-Cross Directory
1980	☐	☑	Haines Criss-Cross Directory
1975	☐	☑	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

Fifth Standard Property
Huron, CA 93234

No Addresses Found

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
S LASSEN AVE			
2013	pg. A2	Cole Information Services	
2008	pg. A5	Cole Information Services	
2003	pg. A6	Cole Information Services	
1999	pg. A7	Cole Information Services	
1995	pg. A9	Cole Information Services	
1992	pg. A10	Cole Information Services	
1990	pg. A11	Haines Criss-Cross Directory	
1990	pg. A12	Haines Criss-Cross Directory	
1985	pg. A13	Haines Criss-Cross Directory	
1985	pg. A14	Haines Criss-Cross Directory	
1980	pg. A15	Haines Criss-Cross Directory	
1980	pg. A16	Haines Criss-Cross Directory	
1975	pg. A17	Haines Criss-Cross Directory	
1975	pg. A18	Haines Criss-Cross Directory	
S TRINITY AVE			
2013	-	Cole Information Services	Target and Adjoining not listed in Source
2008	-	Cole Information Services	Target and Adjoining not listed in Source
2003	-	Cole Information Services	Target and Adjoining not listed in Source
1999	-	Cole Information Services	Target and Adjoining not listed in Source
1995	-	Cole Information Services	Target and Adjoining not listed in Source
1992	-	Cole Information Services	Target and Adjoining not listed in Source
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 2013

1	HURON FLORIST & DELIVERY
32450	WESTLAND WATER DISTRICT
32813	JOSE BECERRA
32815	JUAN HERNANDEZ
32865	JUAN VALLADARES
35720	GOWAN SEED COMPANY
	HIGARD FARMS LLC
35820	ANA MENDEZ
	BENITO CRUZ
	BRIGIDO ENRIQUEZ
	CARLOS CARDENAS
	ELDA ANGUIANO
	ERICKA MAYORGA
	JOSE ARMENTA
	JOSE TORRES
	MARIA GONZALEZ
	MARISOL GAONA
	MEJIA MARIO
	NAVINIA QUEYLIN
	RAFAEL GARCIA
	SERGIO LOVIO
	SHS LLC
	SUSANA LARES
36010	ALAMOS FOOD STORE
36100	UNITED STATES GOVERNMENT
	UNITED STATES POSTAL SERVICEUSPS
36210	HURON FOODLAND
36240	AMIGO MARKET
36270	MARQUEZ AUTO REPAIR
36301	FAMILY DOLLAR
36311	CITY OF HURON
36322	EDITH RODRIGUEZ
	EUGENIO CARRILLO
	FAUSTO LATORRE
	MARICELA CAMPOS
	RAMON BARAJAS
	ROBERTO GARZA
36374	RALPHS TRIANGLE SERVICES
36389	TSR INC
36456	HURON GENERAL STORE
36459	G & G MARKET
36461	MONAS ONE
36471	GOMEZ BOOKKEEPING & INCOME TAX SERVI
36499	AGUILARS AUTOMOTIVE
36502	UHAUL NEIGHBORHOOD DEALER
36509	BUFORD STAR MART
36526	LAURA BRAVO
36529	MARIA MENDOZA
36539	KRIS MEAT MARKET
36549	LEOS AUTO PARTS INC

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 2013 (Cont'd)

36561	JOYERIA RENE
36565	MARIA ORNELAS
	RANCHO INN
36575	ANTONIO GOMEZ
36576	RIO GRANDE RESTAURANT
36580	YOLANDA MONTES
36585	HAIR REFLECTIONS
36589	ERICKAS CLOTHING
36593	MEXICO CAFE
36605	EL MICHOACANO
36618	GTS TAX SERVICE
	MARIAS BEAUTY SALON
	MONTEREY WATER COMPANY
	RAYES CLOTHING
	STRAW HAT PIZZA
	WESTSIDE FAMILY PRESERVATION
36629	NORAS TAX SERVICE
36648	99 CENT STORE
36654	HURON DENTAL OFFICE
36656	SUPER CENTER
36659	CIRA BARRAGAN
36668	LASSEN MARKET
36678	DISCOTECA LA MICHOACANA
	HURON CIGARETTE STORE
	LUPITAS THRIFT SHOP
36700	ACADEMY WEST INSURANCE SERVICES INC
	PALAZA SOL
	SOL PALAZA
36749	OXXO MARKET
36847	LA CALIF MARKET
36850	ACENSION GUTTIEREZ
	ALICIA DUENAS
	ARMANDO HERRERA
	BIBIANA RAMIREZ
	CINTHYA PALOS
	EFRAIN PACHECO
	ENRIQUE REYES
	EUFRACIA CRUZ
	G ZENDEAS
	GABRIELA VILLEGAS
	JOSE PALOS
	JUANA CRUZ
	LEONARDA SOTO
	MARIA CRUZ
	MARTA PAREDES
	MARTHA MELCHOR
	PAOLA BAUTISTA
	PATRICIA GOMEZ
	PEDRO CALDERA
	PORVENIR ESTATES

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 2013 (Cont'd)

36850	ROSA MENDOZA
	SAUL CORDOVA
	TERESA BILCHIS
	VIRGINIA LOPEZ
	WILMER TOSCANO
36865	LA ESPERANZA RESTAURANT
36869	FIESTA LATINO
36882	CHINA RESTAURANT
36905	LA ESQUINITA MI PUEBLO TAQUERIA
36913	CRISTINA RUIZ
36951	A & E CLOTHING
36953	LA PERLA RESTAURANT
36963	MARGARITAS BEAUTY SALON

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 2008

36100	UNITED STATES POSTAL SERVICE
36502	BENJAMIN MARTINEZ
36565	ADELA ALEJO
36850	ARMANDO HERRERA
	GABRIEL NAVARRO
	GUADALUPE NAVARRO
	LEOBARDO PEREZ
	MARIA FAVELA
	PATRICIA GOMEZ
	SUSANA LAREZ

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 2003

32865	ROSALINA MONTELLANO
36010	VANMALIBAI PATEL
36322	ANA RIOS
36439	JOSE SILVA
36502	BENJAMIN MARTINEZ
36526	NATIVIDAD FLORES
36529	PATRICIA GARCIA
36555	RENE JOYERIA
36565	NIDIA SOBERANES
36575	ANTONIO GOMEZ
36585	MARIA NIEBLAS
36652	KIANNA JOYERIA
36665	RAMON PORTILLO
36850	ARMANDO HERRERA
	ERNESTO RAMIREZ
	JUVENCIO LOPEZ
	LEOBARDO PEREZ
	LEONEL BALLESTEROS
	LOPEZ IBARRA
	MARIA SERNA
	PABLO MARTINEZ
	PATRICIA GOMEZ
	PEDRO NAJAR
	TITO ABREGO
36865	LOPEZ TAQUERIA
36947	MAGDALENA SANCHEZ
36953	ELSA DISCOTECA
42010	GARY ROBINSON

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 1999

32450 WESTLANDS WATER DISTRICT
32813 JOSE BECERRA
32843 F M C CORPORATION
HALL AG ENTERPISES
32865 RAFAEL HERRERA
35720 HIGARD FARMS LLC
36010 ALAMOS FOOD STORE
ALAMOS MOTEL
36100 UNITED STATES GOVERNMENT POST OFFICE
UNITED STATES GOVERNMENT POSTAL SERVICES US
36240 AMIGO MARKET
36311 HURON CITY OF CITY HALL
HURON CITY OF CITY MANAGER
HURON CITY OF FINANCE DEPARTMENT
36320 LASSEN MOTEL
36322 CARLOS LAGUNE
MOHAMMAD ALI
RAMON BARAJAS
ROBERTO GARZA
YADIRA TORRES
36374 RALPHS TRIANGLE SERVICE
36389 HURON CITY OF
HURON CITY OF POLICE DEPARTMENT
36459 G & G MARKET
36461 FOUR ACES DRIVE IN
36471 DOMESTIC VIOLENCE NETWORK OF HURON
GOMEZ BOOKKEEPING & INCOME TAX SERVICE
36499 AGUILARS AUTOMOTIVE
36502 U-HAUL COMPANY
36508 RICHARDS TEXACO SERVICE STN
36529 YOLIS KITCHEN
36539 CHRISS MEAT COMPANY
36549 LEOS AUTO PARTS INCORPORATED
36565 JOAQUIN REYES
36575 ANTONIO GOMEZ
36585 HAIR REFLECTIONS
36589 ERICA CLOTHING
36593 MEXICO CAFE
36603 CORONAS BAR
36611 SMOKEHOUSE CAFE
36618 DOLPHUS DPIERCE
HURON CHIROPRACTIC
JONES MOVIE CENTER
MARIAS BEAUTY SALON
PIERCE DOLPHUS D II DC
REYES CLOTHING MARKET
STRAW HAT PIZZA
36629 PARKSIDE FLORAL & GIFT SHOP
PARKSIDE STORE
36648 HURON SHOE & CLOTHING MART

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 1999 (Cont'd)

36654	HURON DENTAL OFFICE
36660	GARCIAS BEAUTY SHOP
36665	CHAPARROS AUTO REPAIR
	RAMON PORTILLO
36668	LASSEN FOOD MART
36700	SOL PALAZA
36749	CHAVARRIAS MARKET
36763	ROMALDOS BAR
36773	HURON 98 PLUS
36847	LACALIF MARKET 3
36850	C LARES
	CRISTINA RAMIREZ
	EFRAIN PACHECO
	ELVIA ZAYAS
	ENRIQUE REYES
	ERNESTO RAMIREZ
	EUFRACIA CRUZ
	G LOMELI
	G ZENDEJAS
	JESUS URIBE
	JORGE OSUNA
	JOSE PALOS
	LILIANA LOMELI
	MANUEL DURAN
	MARIA FAVELA
	MARLA RAMIREZ
	MARTHA MELCHOR
	RASCHHIPAL SINGH
	REYES SANCHEZ
	ROSA MENDOZA
	ROSA VILLELA
	SERGIO LIZARRAGA
	TERESA BILCHIS
36869	BROTHERS MARKET
36882	CHINA RESTAURANT
36905	ESQUINITA MARKET
36913	CRISTINA RUIZ
36949	99 CENT STORES
36953	ELSAS CLOTHING
36957	LAPERLA RESTAURANT
36959	MADELIS COMMUNICATIONS
	MARGARITAS BEAUTY SALON
36963	U SAVE MARKET

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 1995

32793	LOPEZ, PABLO
32803	GUILLEN, NORA M
32815	HERNANDEZ, F
32829	TAPIA, MARIA
32855	MEJIA, A R
32859	RODRIGUEZ, ARISTO
35665	RANCHO INN
36010	CHHELSHANKAR, DAVE N
	DIAZ, MARTIN
36320	GOMEZ, ELIZA
36439	CERVANTES, AVALOS R
36456	HURON GENERAL STORE
36461	FOUR ACES DRIVE IN
36471	GOMEZ BOOKKEEPING & INCOME TAX
36477	RAMIREZ, LEO
36508	AGUILARS AUTOMOTIVE
36512	HURON LUMBER & SUPPLY INC
36529	BESERRA, ROSA
	GOMEZ, G
	SANCHEZ, JOSE
36539	CHRISS MEAT CO
36555	JOYERIA, RENE
36565	BUSTILLO, IRIS
	ESTRADA, ALVARO P
	MENDOZA, E
	TAMAYO, SAUL
36575	ELYS CLOTHING
36593	IRUJO, MARIA A
36594	FIFTH LANE BOWL
	IBARRO, CHIRS
36603	EL CHARRO CLUB
36618	MARIAS BEAUTY SALON
	PIERCE, DOLPHUS D
	WENZEL, WILBUR F
	WILBUR F WENZEL
36629	PARKSIDE STORE
36659	MARTINEZ, ARMIDA
36660	GARCIAS BEAUTY SHOP
36749	CHAVARRIAS MARKET
36763	ROMALDOS BAR
36865	VASQUEZ, VASQUEZ M
36882	CHINA RESTAURANT
36913	ZURITA, ROSA M
36949	DANIEL C SALAS HARVESTING
	JONES MOVIE CTR
36951	SANDRAS CLOTHING STORE
36957	CARNICERA LA RIENA
36963	U SAVE MARKET
37894	CORTEZ, PEDRO H
42010	ROBINSON, GARY G

Target Street	Cross Street	Source
-	✓	Cole Information Services

S LASSEN AVE 1992

29075 TAFOLLA, DOLORES
32803 GUIEN, NORA
32815 REYES, B
32851 PACHECO, JOSE
32859 RODRIGUEZ, ARISTO
36240 REYES, OMAR
36441 ESCALANTE, ALVARO
36477 MEDINA, C
RAMIREZ, LEO
36529 BESERRA, ROSA
GOMEZ, G
36555 JOYERIA, RENE
36565 MENDOZA, E
TAMAYO, SAUL
36585 ESTRADA, ALVARO P
MARTINEZ, MARIA A
36593 IRUJO, MARIA A
36594 IBARRO, CHIRS
36607 LEON, ROBERTO S
36618 PIERCE, DOLPHUS D
WENZEL, WILBUR F
36947 CASARES, DAVID
MONTANO, LOPEZ C
37894 CORTEZ, PEDRO H
42010 ROBINSON, GARY G
43843 AVILA, SERRANO J

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1990

LASSEN AV 93234
HURON

29000	XXXX	00	
29009	XXXX	00	
29075	TAFOLLA Dolores	884-2871	8
32450	**★WESTLANDS WTR DSTR**	**945-2516**	
32775	NOLASCO Maria G	945-9649	+0
32781	XXXX	00	
32783	GUIEN Nora	945-9528	9
32789	XXXX	00	
32799	XXXX	00	
32803	REYES Bernardo	945-2763	7
32805	CARDENAS Catalina	945-2498	
	CARDENAS Juan	945-2498	
32811	XXXX	00	
32823	GUTIERREZ F	945-2098	
32825	XXXX	00	
32829	ORTEGA Sandra	945-9659	+0
32831	XXXX	00	
32843	GONZALEZ Sylvia A	945-2783	3
	★WESTSIDE HERITG INC	**945-2401**	9
32845	XXXX	00	
32849	ATKINSON Jose	945-2181	8
32851	PACHECO Jose	945-2852	+0
32855	NEVAREZ Santos G	945-2747	+0
32857	ROCHA Jose	945-9512	9
32859	RODRIGUEZ Aristo	945-2650	3

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1990



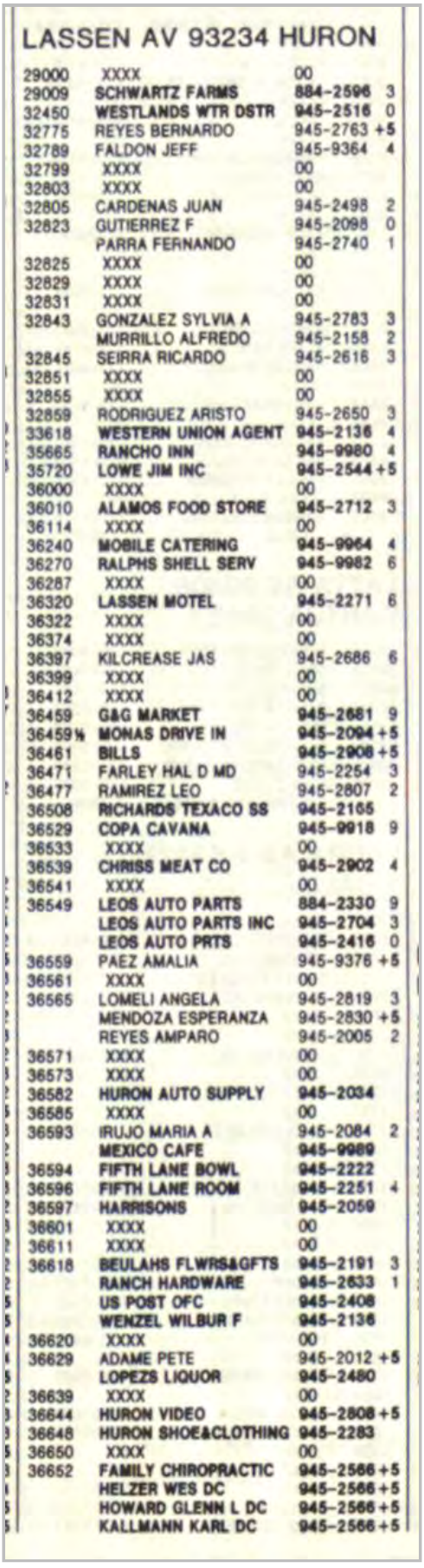
..LASSEN AV 93234 CONT..

32661	MORALES Refugio J	945-2940	+0
32663	XXXX	00	
33618	XXXX	00	
35685	★RANCHO INN	945-9980	4
35720	★LOWE JIM INC	945-2544	5
	★LOWE JIM INC SHOP	945-2603	9
	★PRECISION GRDG&PVNG	945-2544	6
36000	XXXX	00	
36010	★ALAMOS FOOD STORE	945-2712	3
36100	★US POST OFC	945-2408	9
36114	XXXX	00	
36240	★OMARS PIZZA	945-9964	6
36270	★FUEL DEPOT	945-2078	9
36287	XXXX	00	
36311	★HURON CTY CITY HALL	945-2241	9
36320	★LASSEN MOTEL	945-2271	
36322	XXXX	00	
36374	★RALPHS TRIANGLE SRV	945-9935	6
36389	★HURON CTY POLICE	945-2348	9
36397	★FIRE PRTCTN DIST	945-2311	7
	★WESTSD FIRE PRTCTN	945-2311	8
36399	XXXX	00	
36412	XXXX	00	
36441	XXXX	00	
36459	★G&G MARKET	945-2681	
36461	★FOUR ACES THE	945-2977	+0
36477	RAMIREZ Leo	945-2807	2
36508	★RICHARDS TEXACO SS	945-2165	
36529	MENDEZ Cristina	945-9586	+0
36533	XXXX	00	
36539	★CHRISS MEAT CO	945-2902	4
36541	XXXX	00	
36549	★LEOS AUTO PRTS	945-2416	
36559	XXXX	00	
36560	★C&T SV STA&MINI MRT	945-2734	7
36561	XXXX	00	
36565	LOMELI Angela	945-2819	3
	MENDOZA Esperanza	945-2830	5
	VALENCIA Maria	945-2951	+0
36571	XXXX	00	
36573	XXXX	00	
36575	XXXX	00	
36582	XXXX	00	
36585	ESTRADA Alvaro Paiz	945-9353	9
	★HAIR REFLECTIONS	945-2393	+0
36593	IRUJO Maria A	945-2084	2
	★MEXICO CAFE	945-9989	
36594	★FIFTH LANE BOWL	945-2222	
	IBARRA Chris	945-9366	9
36596	★FIFTH LANE ROOM	945-2251	4
36597	★HARRISONS	945-2059	
36601	XXXX	00	
36603	XXXX	00	
36607	LEON Roberto S	945-9451	9
	★SMOKEHOUSE THE	945-9957	8
36611	XXXX	00	
36618	★FAMILY CHIROPRACTIC	945-2566	+0
	★MARIAS BEAUTY SALON	945-2433	+0
	★RANCH HDWR&VARIETY	945-9241	6
	★WENZEL WILBUR F	945-2136	
	★WESTRN UNION	945-2136	
36620	XXXX	00	
36629	★ORGULLO EDCTNL PROJ	945-2062	7
	★PARKSIDE STORE	945-9484	9
36639	XXXX	00	
36644	XXXX	00	
36648	★HURON SHOE&CLOTHING	945-2283	
36650	XXXX	00	
36652	XXXX	00	
36656	★HURON VIDEO	945-9456	+0
36659	XXXX	00	
36660	★GARCIAS BEAUTY SHOP	945-2959	9
36662	XXXX	00	
36664	XXXX	00	
36665	XXXX	00	
36668	★LASSEN FOOD MART	945-2362	
36715	XXXX	00	
36745	XXXX	00	
36749	★CHAVARRIAS MARKET	945-2805	7
36753	★LA CUMBRE CAFE	945-2969	+0
36763	CORONA B	945-2615	+0
	★ROMALDOS BAR	945-9972	2
	ZAMORA Ignacia	945-9562	+0
36773	★L&B AUTO PARTS	945-2318	
	★L&B AUTO PARTS	866-5316	
36827	XXXX	00	
36833	XXXX	00	
36847	★ENCINO MOTEL	945-2521	4
	★LA CA MKT	945-2359	
36861	XXXX	00	
36863	XXXX	00	
36865	XXXX	00	
36869	★CA GROCERS WHSL	945-2571	3
36882	★CHINA RESTAURANT	945-2823	6
36885	XXXX	00	
36905	★ESQUINITA MARKET	945-2622	
36911	XXXX	00	
36913	XXXX	00	
36943	XXXX	00	
36947	GARCIA Rosa Maria	945-9373	+0
36949	CRUZ Ted	945-9222	5
	★CRUZ TED PACKING	945-9628	+0
36953	XXXX	00	
36957	★LA FIESTA MXCN KCHN	945-2870	+0
36963	★U SAVE MARKET	945-2775	+0
36972	XXXX	00	
37828	XXXX	00	
37844	XXXX	00	
37894	CORTEZ Pedro H	945-2836	9
38276	XXXX	00	
38432	XXXX	00	
39040	XXXX	00	
39041	XXXX	00	
40481	★JOHNNIE GILLIS FRMS	945-9424	9
40796	XXXX	00	
42010	ROBINSON Gary G	945-2897	4
43007	HERNANDEZ Eluisa	945-9446	9
43017	MARQUEZ Jose	945-2464	8
43121	MARQUEZ Fernando	945-2378	5
43843	AVILA Serrano Juan	945-2916	+0
NO #	★HURON GENL STORE	945-2350	
NO #	★HURON LUMBER&SUPPLY	945-2391	
NO #	LITTLE Marie	945-2409	
NO #	★MCILROY FARM EQUIP	945-2266	

★ 56 BUS 93 RES 20 NEW

Target Street	Cross Street	Source
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S LASSEN AVE 1985



LASSEN AV 93234 HURON

29000	XXXX	00	
29009	SCHWARTZ FARMS	884-2596	3
32450	WESTLANDS WTR DSTR	945-2516	0
32775	REYES BERNARDO	945-2763	+5
32789	FALDON JEFF	945-9364	4
32799	XXXX	00	
32803	XXXX	00	
32805	CARDENAS JUAN	945-2498	2
32823	GUTIERREZ F	945-2098	0
	PARRA FERNANDO	945-2740	1
32825	XXXX	00	
32829	XXXX	00	
32831	XXXX	00	
32843	GONZALEZ SYLVIA A	945-2783	3
	MURRILLO ALFREDO	945-2158	2
32845	SEIRRA RICARDO	945-2616	3
32851	XXXX	00	
32855	XXXX	00	
32859	RODRIGUEZ ARISTO	945-2650	3
33618	WESTERN UNION AGENT	945-2136	4
35665	RANCHO INN	945-9980	4
35720	LOWE JIM INC	945-2544	+5
36000	XXXX	00	
36010	ALAMOS FOOD STORE	945-2712	3
36114	XXXX	00	
36240	MOBILE CATERING	945-9964	4
36270	RALPHS SHELL SERV	945-9982	6
36287	XXXX	00	
36320	LASSEN MOTEL	945-2271	6
36322	XXXX	00	
36374	XXXX	00	
36397	KILCREASE JAS	945-2686	6
36399	XXXX	00	
36412	XXXX	00	
36459	G&G MARKET	945-2681	9
36459½	MONAS DRIVE IN	945-2094	+5
36461	BILLS	945-2908	+5
36471	FARLEY HAL D MD	945-2254	3
36477	RAMIREZ LEO	945-2807	2
36508	RICHARDS TEXACO SS	945-2165	
36529	COPA CAVANA	945-9918	9
36533	XXXX	00	
36539	CHRISS MEAT CO	945-2902	4
36541	XXXX	00	
36549	LEOS AUTO PARTS	884-2330	9
	LEOS AUTO PARTS INC	945-2704	3
	LEOS AUTO PRTS	945-2416	0
36559	PAEZ AMALIA	945-9376	+5
36561	XXXX	00	
36565	LOMELI ANGELA	945-2819	3
	MENDOZA ESPERANZA	945-2830	+5
	REYES AMPARO	945-2005	2
36571	XXXX	00	
36573	XXXX	00	
36582	HURON AUTO SUPPLY	945-2034	
36585	XXXX	00	
36593	IRUJO MARIA A	945-2084	2
	MEXICO CAFE	945-9989	
36594	FIFTH LANE BOWL	945-2222	
36596	FIFTH LANE ROOM	945-2251	4
36597	HARRISONS	945-2059	
36601	XXXX	00	
36611	XXXX	00	
36618	BEULAHS FLWRS&GFTS	945-2191	3
	RANCH HARDWARE	945-2533	1
	US POST OFC	945-2408	
	WENZEL WILBUR F	945-2136	
36620	XXXX	00	
36629	ADAME PETE	945-2012	+5
	LOPEZS LIQUOR	945-2480	
36639	XXXX	00	
36644	HURON VIDEO	945-2808	+5
36648	HURON SHOE&CLOTHING	945-2283	
36650	XXXX	00	
36652	FAMILY CHIROPRACTIC	945-2566	+5
	HELZER WES DC	945-2566	+5
	HOWARD GLENN L DC	945-2566	+5
	KALLMANN KARL DC	945-2566	+5

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1985



..LASSEN AV		93234 CONT..	
36659	XXXX	00	
36662	XXXX	00	
36664	XXXX	00	
36665	XXXX	00	
36668	LASSEN FOOD MART	945-2362	
36715	XXXX	00	
36745	CHAVARRIAS MARKET	945-2463	6
36763	ROMALDOS BAR	945-9972	2
36773	L&B AUTO PARTS	945-2318	7
	L&B AUTO PARTS	866-5316	7
36827	EL SINALOENSE	945-2896	4
36833	XXXX	00	
36847	ENCINO MOTEL	945-2521	4
	LA CA MKT	945-2359	
36861	XXXX	00	
36863	XXXX	00	
36865	XXXX	00	
36869	CA GROCERS WHOLESAL	945-2571	3
36882	XXXX	00	
36885	XXXX	00	
36905	ESQUIVITA MARKET	945-2622	9
36911	RITZ THEATRE	945-2519	
36913	ALONSO F J	945-2845	0
	MAGDALENO ART	945-2492	+5
36943	XXXX	00	
36947	XXXX	00	
36949	CRUZ TED	945-9222	+5
	SUMIDA HARRY	945-9224	+5
36953	CELIAS HS OF BEAUTY	945-2393	+5
36957	C&R CAFE	945-2780	+5
37828	MORENO LORENZO	945-2066	1
37844	XXXX	00	
37894	GONZALES JOSE L	945-2836	0
38276	XXXX	00	
38432	XXXX	00	
39041	XXXX	00	
39042	PEREZ DAVID M	945-2017	9
39066	XXXX	00	
39088	XXXX	00	
40481	BARAJAS ISIDRO	945-2456	+5
	DUARTE GUSTAVO	945-2970	+5
	FARM FLITE AG FLYNG	945-2344	4
	WORTH HOMER	945-2111	4
40796	XXXX	00	
42010	ROBINSON GARY G	945-2897	4
43121	MARQUEZ FERNANDO	945-2378	+5
43835	BECERRA GREGORIO	945-2436	+5
NO #	ARELLANO MARIANO JR	945-2759	
NO #	AVILA DAN	884-2449	
NO #	CARR BROS GARAGE	945-2398	
NO #	FIRE PRTCTN DST WST	945-2311	
NO #	GOODMAN JAMES	945-2506	8
NO #	GUTIERREZ BAUDELIO	884-2219	
NO #	HURON FMLY HLTH CTR	945-2541	8
NO #	HURON GENL STORE	945-2350	
NO #	HURON LUMBER&SUPPLY	945-2391	
NO #	LITTLE MARIE	945-2409	8
NO #	LOWE JIM	945-2487	
NO #	MCILROY R FARM EQP	945-2266	
NO #	NEAL I B	945-2195	
NO #	PRODUCERS HURON GIN	945-2057	
NO #	UNITD HEALTH CENTER	945-2541	8
★	56 BUS 84 RES	21 NEW	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1980

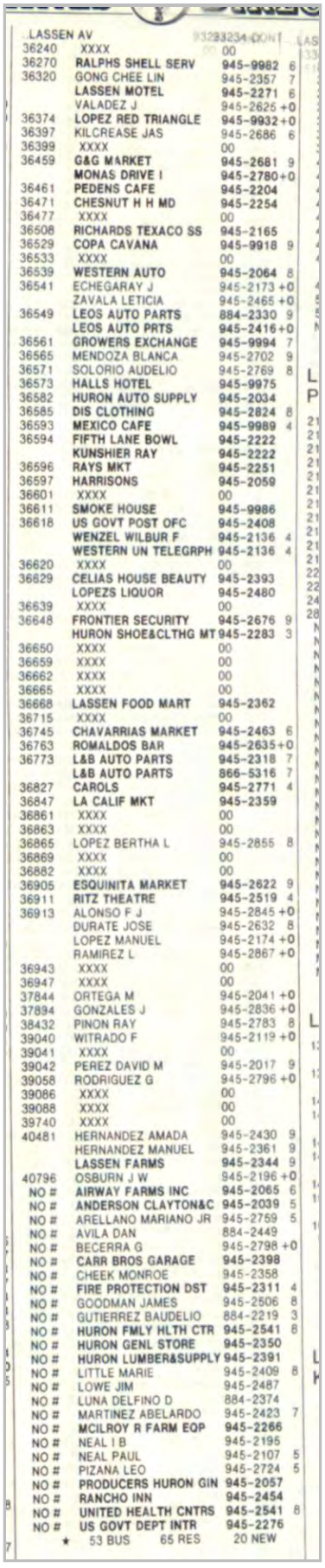


LASSEN AV 93234 HURON

32450	WESTLANDS WATER	945-2516 +0
32775	XXXX	00
32799	GAJEDA A	945-2825 +0
32823	GUTIERREZ F	945-2098 +0
32831	JOHNSON IVIE	945-2805 9
32845	SEIRRA RICARDO	945-2877 9
32851	LOPEZ FRANCISCO	945-2873 9
32855	RODRIGUEZ A	945-2650 +0
33618	COALINGA HURON REC	945-2529 8
36000	XXXX	00
36114	CUEVAS IGNACIO	945-2134 6

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1980



LASSEN AV (CONT)

36240	XXXX	00	
36270	RALPHS SHELL SERV	945-9982	6
36320	GONG CHEE LIN	945-2357	7
	LASSEN MOTEL	945-2271	6
	VALADEZ J	945-2625	+0
36374	LOPEZ RED TRIANGLE	945-9932	+0
36397	KILCREASE JAS	945-2686	6
36399	XXXX	00	
36459	G&G MARKET	945-2681	9
	MONAS DRIVE I	945-2780	+0
36461	PEDENS CAFE	945-2204	
36471	CHESNUT H H MD	945-2254	
36477	XXXX	00	
36508	RICHARDS TEXACO SS	945-2165	
36529	COPA CAVANA	945-9918	9
36533	XXXX	00	
36539	WESTERN AUTO	945-2064	8
36541	ECHEGARAY J	945-2173	+0
	ZAVALA LETICIA	945-2465	+0
36549	LEOS AUTO PARTS	884-2330	9
	LEOS AUTO PRTS	945-2416	+0
36561	GROWERS EXCHANGE	945-9994	7
36565	MENDOZA BLANCA	945-2702	9
36571	SOLORIO AUDELIO	945-2769	8
36573	HALLS HOTEL	945-9975	
36582	HURON AUTO SUPPLY	945-2034	
36585	DIS CLOTHING	945-2824	8
36593	MEXICO CAFE	945-9989	4
36594	FIFTH LANE BOWL	945-2222	
	KUNSHIER RAY	945-2222	
36596	RAYS MKT	945-2251	
36597	HARRISONS	945-2059	
36601	XXXX	00	
36611	SMOKE HOUSE	945-9986	
36618	US GOVT POST OFC	945-2408	
	WENZEL WILBUR F	945-2136	4
	WESTERN UN TELEGRPH	945-2136	4
36620	XXXX	00	
36629	CELIAS HOUSE BEAUTY	945-2393	
	LOPEZS LIQUOR	945-2480	
36639	XXXX	00	
36648	FRONTIER SECURITY	945-2676	9
	HURON SHOE&CLTHG MT	945-2283	3
36650	XXXX	00	
36659	XXXX	00	
36662	XXXX	00	
36665	XXXX	00	
36668	LASSEN FOOD MART	945-2362	
36715	XXXX	00	
36745	CHAVARRIAS MARKET	945-2463	6
36763	ROMALDOS BAR	945-2635	+0
36773	L&B AUTO PARTS	945-2318	7
	L&B AUTO PARTS	866-5316	7
36827	CAROLS	945-2771	4
36847	LA CALIF MKT	945-2359	
36861	XXXX	00	
36863	XXXX	00	
36865	LOPEZ BERTHA L	945-2855	8
36869	XXXX	00	
36882	XXXX	00	
36905	ESQUINITA MARKET	945-2622	9
36911	RITZ THEATRE	945-2519	4
36913	ALONSO F J	945-2845	+0
	DURATE JOSE	945-2632	8
	LOPEZ MANUEL	945-2174	+0
	RAMIREZ L	945-2867	+0
36943	XXXX	00	
36947	XXXX	00	
37844	ORTEGA M	945-2041	+0
37894	GONZALES J	945-2836	+0
38432	PINON RAY	945-2783	8
39040	WITRADO F	945-2119	+0
39041	XXXX	00	
39042	PEREZ DAVID M	945-2017	9
39058	RODRIGUEZ G	945-2796	+0
39086	XXXX	00	
39088	XXXX	00	
39740	XXXX	00	
40481	HERNANDEZ AMADA	945-2430	9
	HERNANDEZ MANUEL	945-2361	9
	LASSEN FARMS	945-2344	9
40796	OSBURN J W	945-2196	+0
NO #	AIRWAY FARMS INC	945-2065	6
NO #	ANDERSON CLAYTON&C	945-2039	5
NO #	ARELLANO MARIANO JR	945-2759	5
NO #	AVILA DAN	884-2449	
NO #	BECERRA G	945-2798	+0
NO #	CARR BROS GARAGE	945-2398	
NO #	CHEEK MONROE	945-2358	
NO #	FIRE PROTECTION DST	945-2311	4
NO #	GOODMAN JAMES	945-2506	8
NO #	GUTIERREZ BAUDELIO	884-2219	3
NO #	HURON FMLY HLTH CTR	945-2541	8
NO #	HURON GENL STORE	945-2350	
NO #	HURON LUMBER&SUPPLY	945-2391	
NO #	LITTLE MARIE	945-2409	8
NO #	LOWE JIM	945-2487	
NO #	LUNA DELFINO D	884-2374	
NO #	MARTINEZ ABELARDO	945-2423	7
NO #	MCILROY R FARM EQP	945-2266	
NO #	NEAL I B	945-2195	
NO #	NEAL PAUL	945-2107	5
NO #	PIZANA LEO	945-2724	5
NO #	PRODUCERS HURON GIN	945-2057	
NO #	RANCHO INN	945-2454	
NO #	UNITED HEALTH CNTRS	945-2541	8
NO #	US GOVT DEPT INTR	945-2276	

★ 53 BUS 65 RES 20 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1975

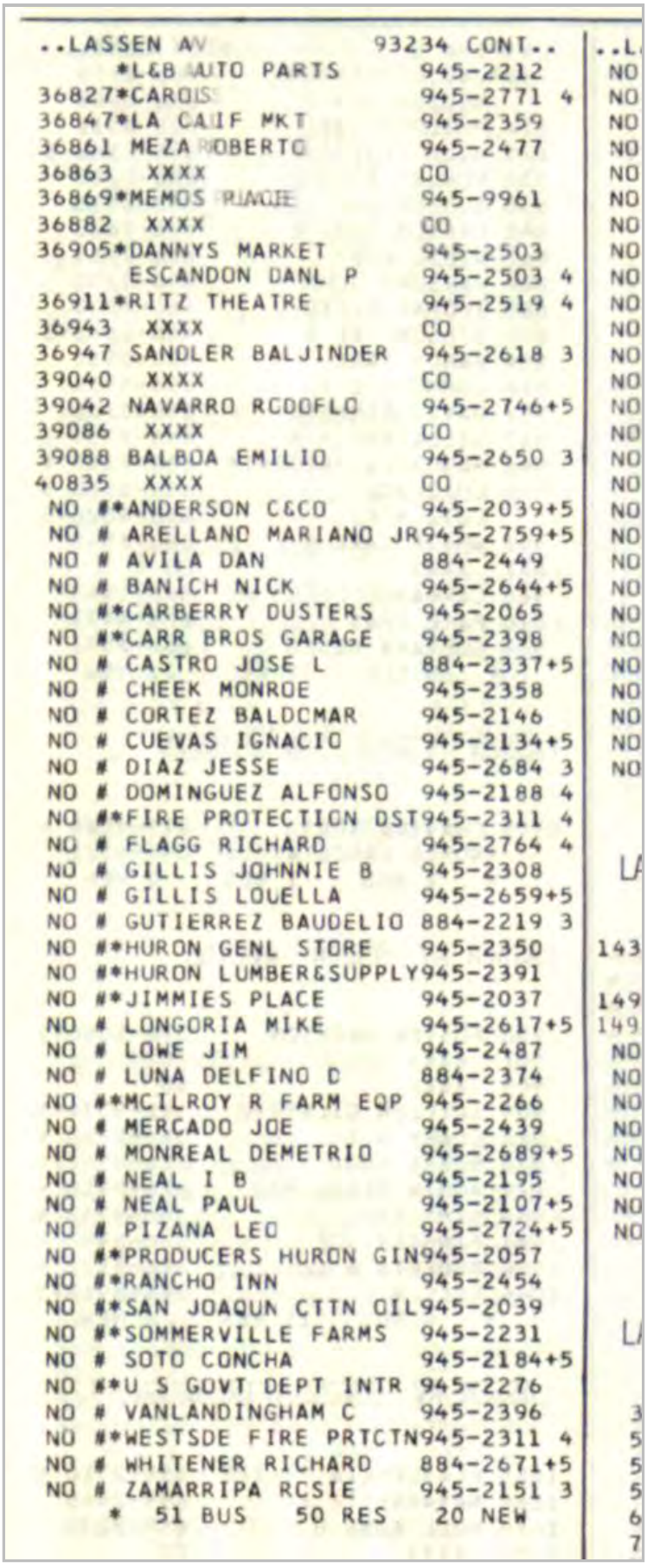


LASSEN AV 93234 HURON

32450*WESTLAND WATER DIST 945-2695+5
36114 XXXX OO
36240*SARAHS DRIVE INN 945-2194+5
36270 XXXX OO
36374*GONZALEZ RED TRNGLE 945-2334+5
36399 KILCREASE JAS 945-2686+5
36459*G&G MKT 945-2319
*MONAS SNACK SHACK 945-2775+5
36461*PEDENS CAFE 945-2204
RODRIGUEZ PEDRO 945-2539 4
36471*CHESNUT H H MD 945-2254
36477 RAMIREZ LEO 945-2303
36508*RICHARDS TEXACO SS 945-2165
36529*SALLYS RESTAURANT 945-2629+5
36533 XXXX OO
36539 XXXX OO
36549*LEOS AUTO PARTS 945-2416 4
36561*GROWERS EXCHANGE 945-2421+5
36571 ARANO SANTIAGO B 945-2636 3
36573*HALLS HOTEL 945-9975
36582*HURON AUTO SUPPLY 945-2034
36585 XXXX OO
36593*MEXICO CAFE 945-9989 4
36594*FIFTH LANE BOWL 945-2222
*KUNSHIER RAY 945-2222
36596*RAYS MKT 945-2251
36597*HARRISONS 945-2059
36601 XXXX OO
36611*SMOKE HOUSE 945-9986
36618*U S GOVT POST OFC 945-2408
*WENZEL WILBUR F 945-2136 4
*WESTERN UN TELEGRPH 945-2136 4
36620*WEST HILLS FINANCE 945-2782
36629*CELIAS HOUSE BEAUTY 945-2393
*LOPEZS LIQUOR 945-2480
36641*HULA HUT 945-9979
36648*HURON SHOE&CLTHG MT 945-2283 3
36650*HURON TV&APPLIANCE 945-2368 4
36659 XXXX OO
36662 XXXX OO
36665 XXXX OO
36668*LASSEN FOOD MART 945-2362
36715 XXXX OO
36763*CLUB TWISTER 945-9980
36773*L&B AUTO PARTS 945-2318

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

S LASSEN AVE 1975



..LASSEN AV 93234 CONT..

	*L&B AUTO PARTS	945-2212
36827	*CAROLS	945-2771 4
36847	*LA CALIF MKT	945-2359
36861	MEZA ROBERTO	945-2477
36863	XXXX	CO
36869	*MEMOS PLACE	945-9961
36882	XXXX	CO
36905	*DANNYS MARKET	945-2503
	ESCANDON DANL P	945-2503 4
36911	*RITZ THEATRE	945-2519 4
36943	XXXX	CO
36947	SANDLER BALJINDER	945-2618 3
39040	XXXX	CO
39042	NAVARRO RODOFLO	945-2746+5
39086	XXXX	CO
39088	BALBOA EMILIO	945-2650 3
40835	XXXX	CO
NO	#*ANDERSON C&CO	945-2039+5
NO	# ARELLANO MARIANO JR	945-2759+5
NO	# AVILA DAN	884-2449
NO	# BANICH NICK	945-2644+5
NO	#*CARBERRY DUSTERS	945-2065
NO	#*CARR BROS GARAGE	945-2398
NO	# CASTRO JOSE L	884-2337+5
NO	# CHEEK MONROE	945-2358
NO	# CORTEZ BALDOMAR	945-2146
NO	# CUEVAS IGNACIO	945-2134+5
NO	# DIAZ JESSE	945-2684 3
NO	# DOMINGUEZ ALFONSO	945-2188 4
NO	#*FIRE PROTECTION DST	945-2311 4
NO	# FLAGG RICHARD	945-2764 4
NO	# GILLIS JOHNNIE B	945-2308
NO	# GILLIS LOUELLA	945-2659+5
NO	# GUTIERREZ BAUDELIO	884-2219 3
NO	#*HURON GENL STORE	945-2350
NO	#*HURON LUMBER&SUPPLY	945-2391
NO	#*JIMMIES PLACE	945-2037
NO	# LONGORIA MIKE	945-2617+5
NO	# LOWE JIM	945-2487
NO	# LUNA DELFINO D	884-2374
NO	#*MCILROY R FARM EQP	945-2266
NO	# MERCADO JOE	945-2439
NO	# MONREAL DEMETRIO	945-2689+5
NO	# NEAL I B	945-2195
NO	# NEAL PAUL	945-2107+5
NO	# PIZANA LEO	945-2724+5
NO	#*PRODUCERS HURON GIN	945-2057
NO	#*RANCHO INN	945-2454
NO	#*SAN JOAQUN CTTN OIL	945-2039
NO	#*SOMMERVILLE FARMS	945-2231
NO	# SOTO CONCHA	945-2184+5
NO	#*U S GOVT DEPT INTR	945-2276
NO	# VANLANDINGHAM C	945-2396
NO	#*WESTSDE FIRE PRTCTN	945-2311 4
NO	# WHITENER RICHARD	884-2671+5
NO	# ZAMARRIPA ROSIE	945-2151 3

* 51 BUS 50 RES 20 NEW

Fifth Standard Property

Fifth Standard Property

Huron, CA 93234

Inquiry Number: 5068323.3

October 05, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/05/17

Site Name:

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234
EDR Inquiry # 5068323.3

Client Name:

Stantec
3875 Atherton Rd
Rocklin, CA 95765
Contact: Corinne Ackerman

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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 # FC44-4E10-84B4

PO # NA

Project 185703851

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 #: FC44-4E10-84B4

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Fifth Standard Property

Fifth Standard Property

Huron, CA 93234

Inquiry Number: 5068323.4

October 04, 2017

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

10/04/17

Site Name:	Client Name:
Fifth Standard Property	Stantec
Fifth Standard Property	3875 Atherton Rd
Huron, CA 93234	Rocklin, CA 95765
EDR Inquiry # 5068323.4	Contact: Corinne Ackerman

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Stantec 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:		*Coordinates:*	
P.O.#	NA	**Latitude:**	36.160002 36° 9' 36" North
Project:	185703851	**Longitude:**	-120.1142 -120° 6' 51" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	759597.51
		UTM Y Meters:	4005554.57
		Elevation:	393.13' above sea level

Maps Provided:

2012
1971
1956
1947
1942
1937
1933
1912

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Huron
2012
7.5-minute, 24000



Guijarral Hills
2012
7.5-minute, 24000

1971 Source Sheets



Huron
1971
7.5-minute, 24000
Aerial Photo Revised 1971



Guijarral Hills
1971
7.5-minute, 24000
Aerial Photo Revised 1971

1956 Source Sheets

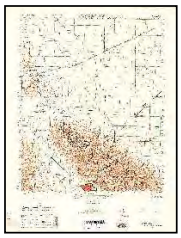


Huron
1956
7.5-minute, 24000



Guijarral Hills
1956
7.5-minute, 24000
Aerial Photo Revised 1955

1947 Source Sheets



POLVADERO GAP
1947
15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets



Polvadero Gap
1942
15-minute, 62500
Aerial Photo Revised 1940

1937 Source Sheets



Huron
1937
7.5-minute, 31680

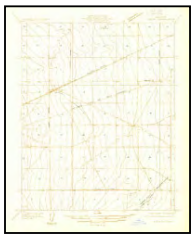


Guijarral Hills
1937
7.5-minute, 31680

1933 Source Sheets



Guijarral Hills
1933
7.5-minute, 31680



Huron
1933
7.5-minute, 31680

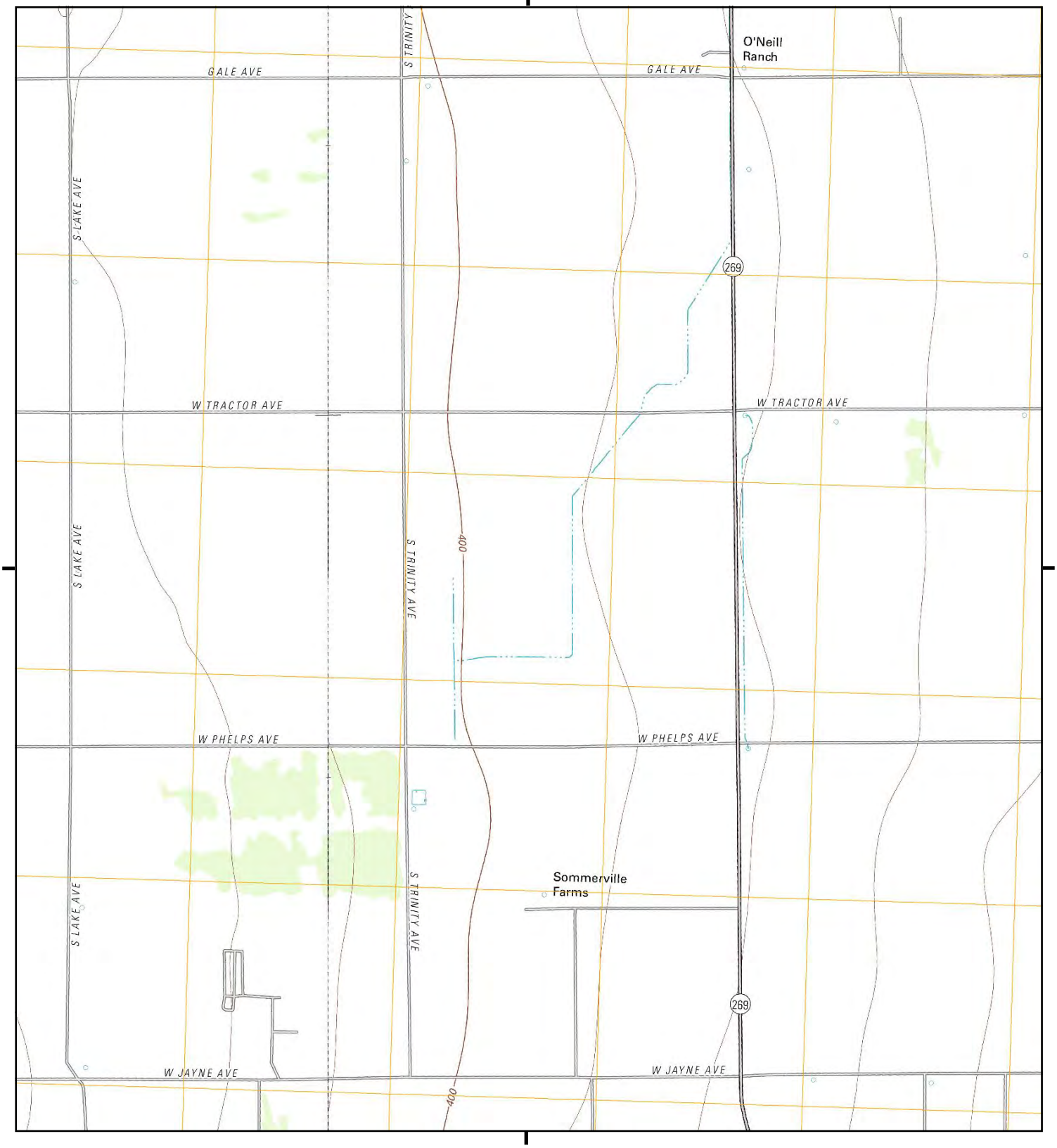
1912 Source Sheets



Coalinga
1912
30-minute, 125000

Historical Topo Map

2012



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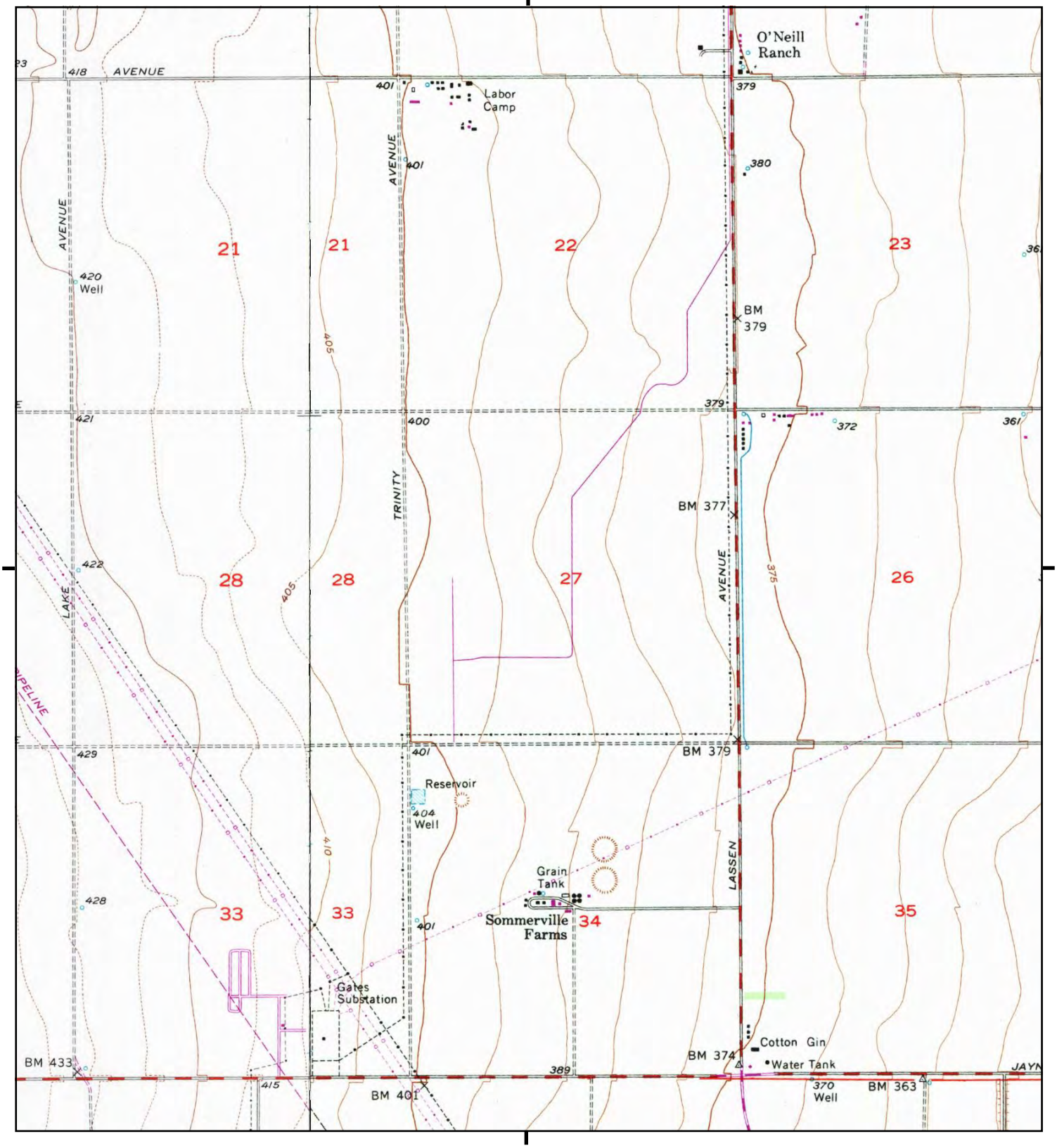
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Huron, 2012, 7.5-minute
NW, Guijarral Hills, 2012, 7.5-minute

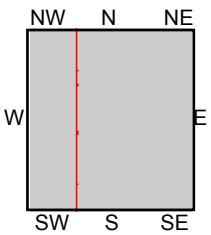
SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



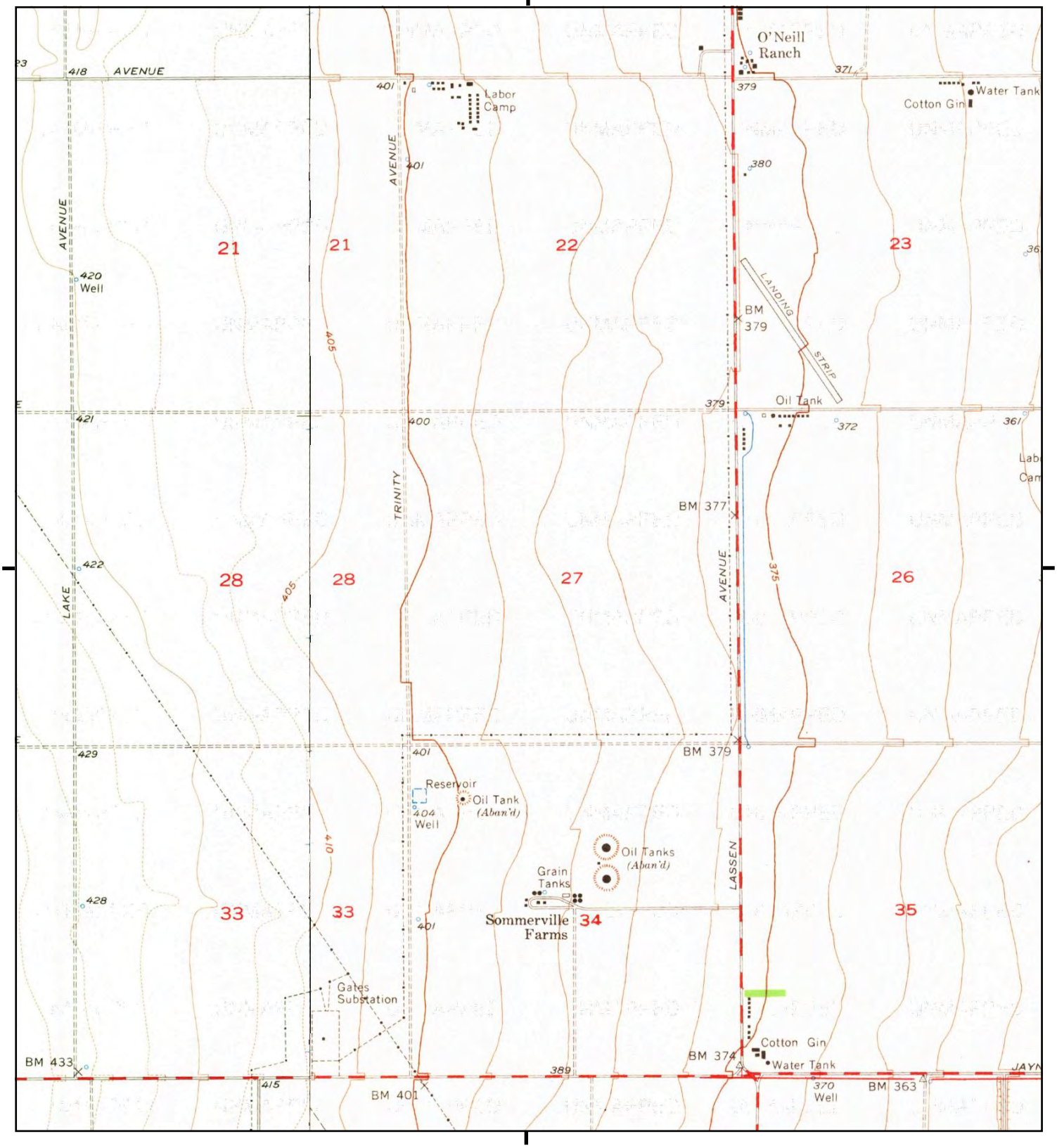
TP, Huron, 1971, 7.5-minute
NW, Guijarral Hills, 1971, 7.5-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N

Historical Topo Map

1956



This report includes information from the following map sheet(s).

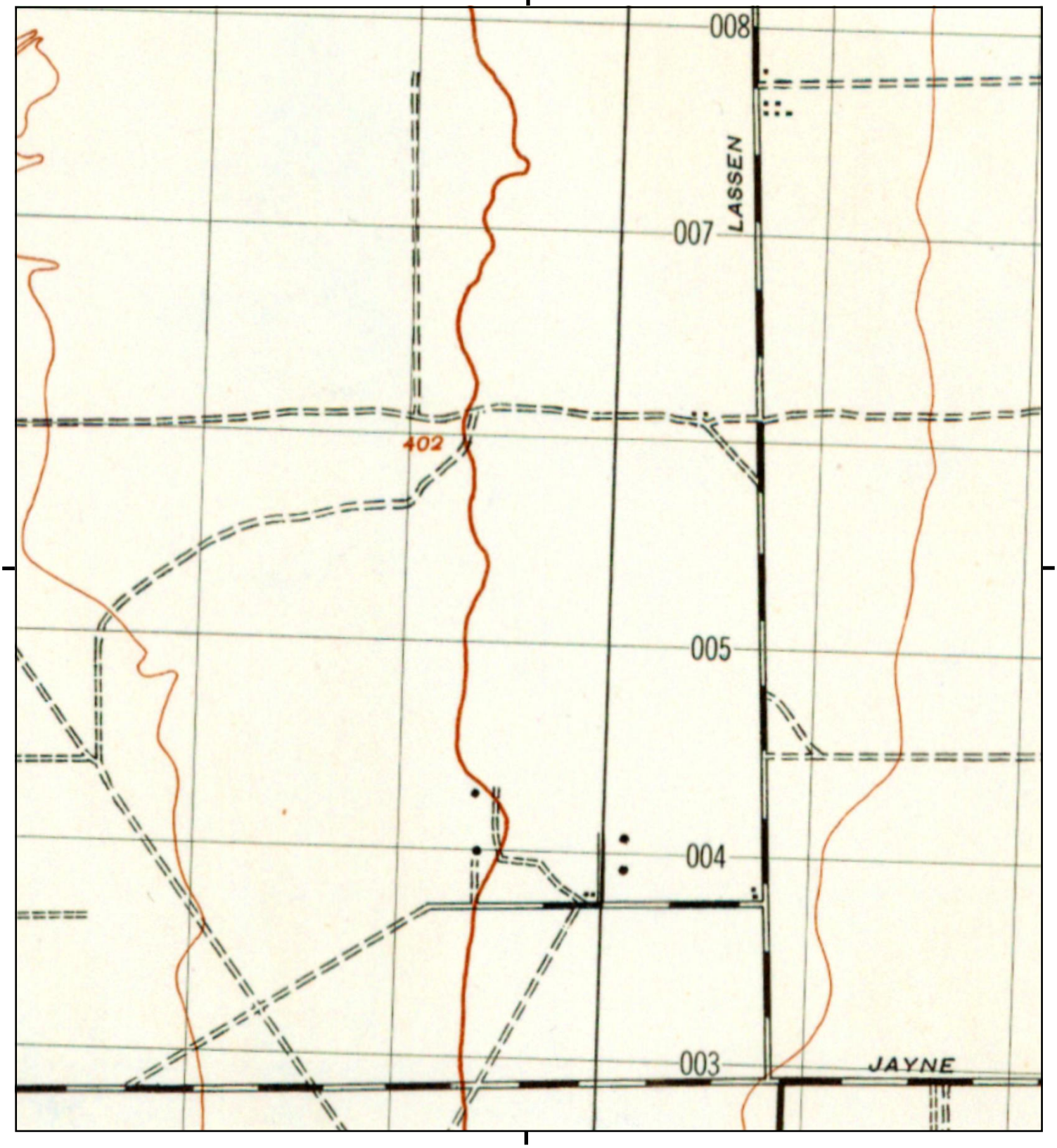
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Huron, 1956, 7.5-minute
NW, Guijarral Hills, 1956, 7.5-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

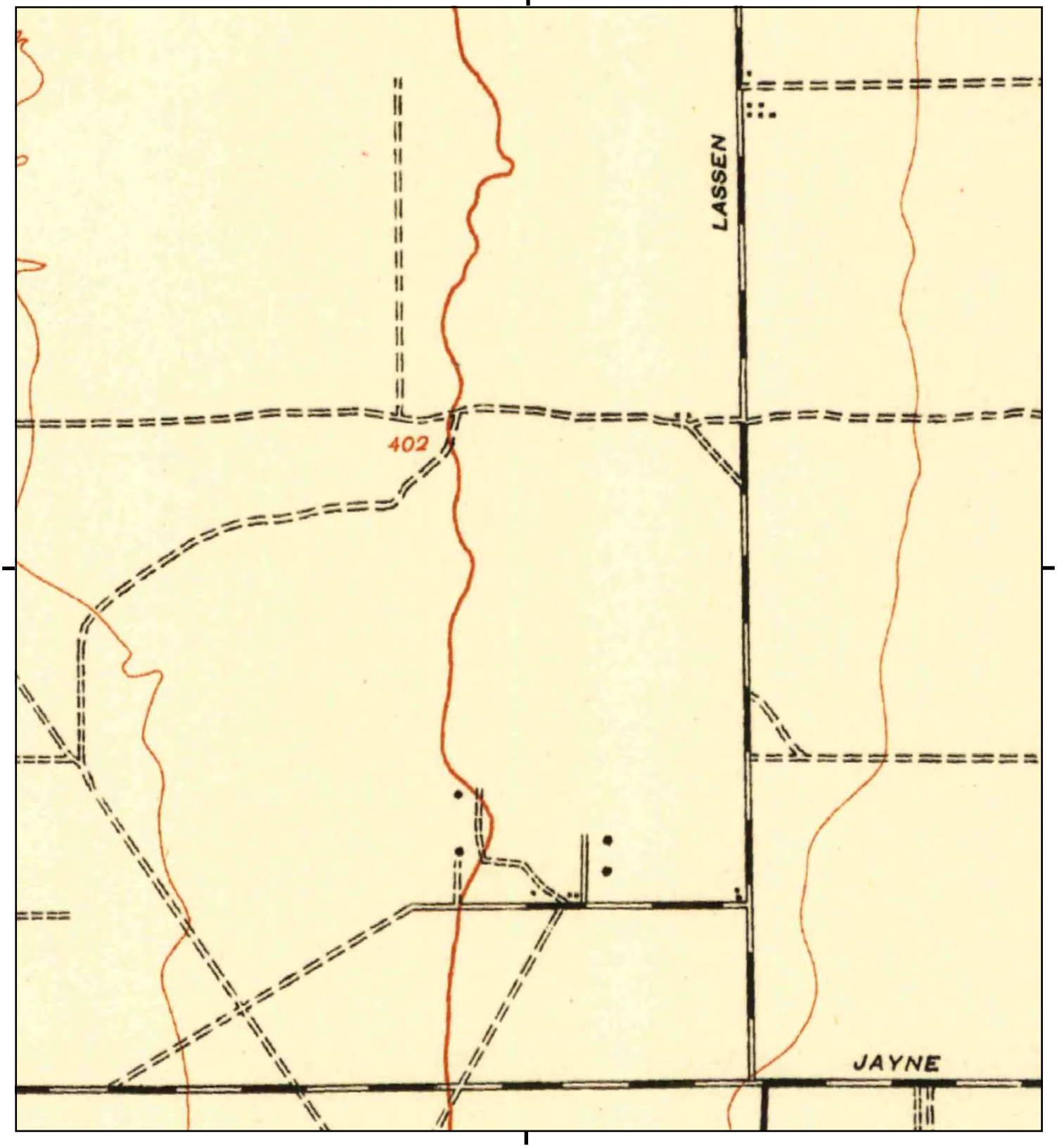
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, POLVADERO GAP, 1947, 15-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

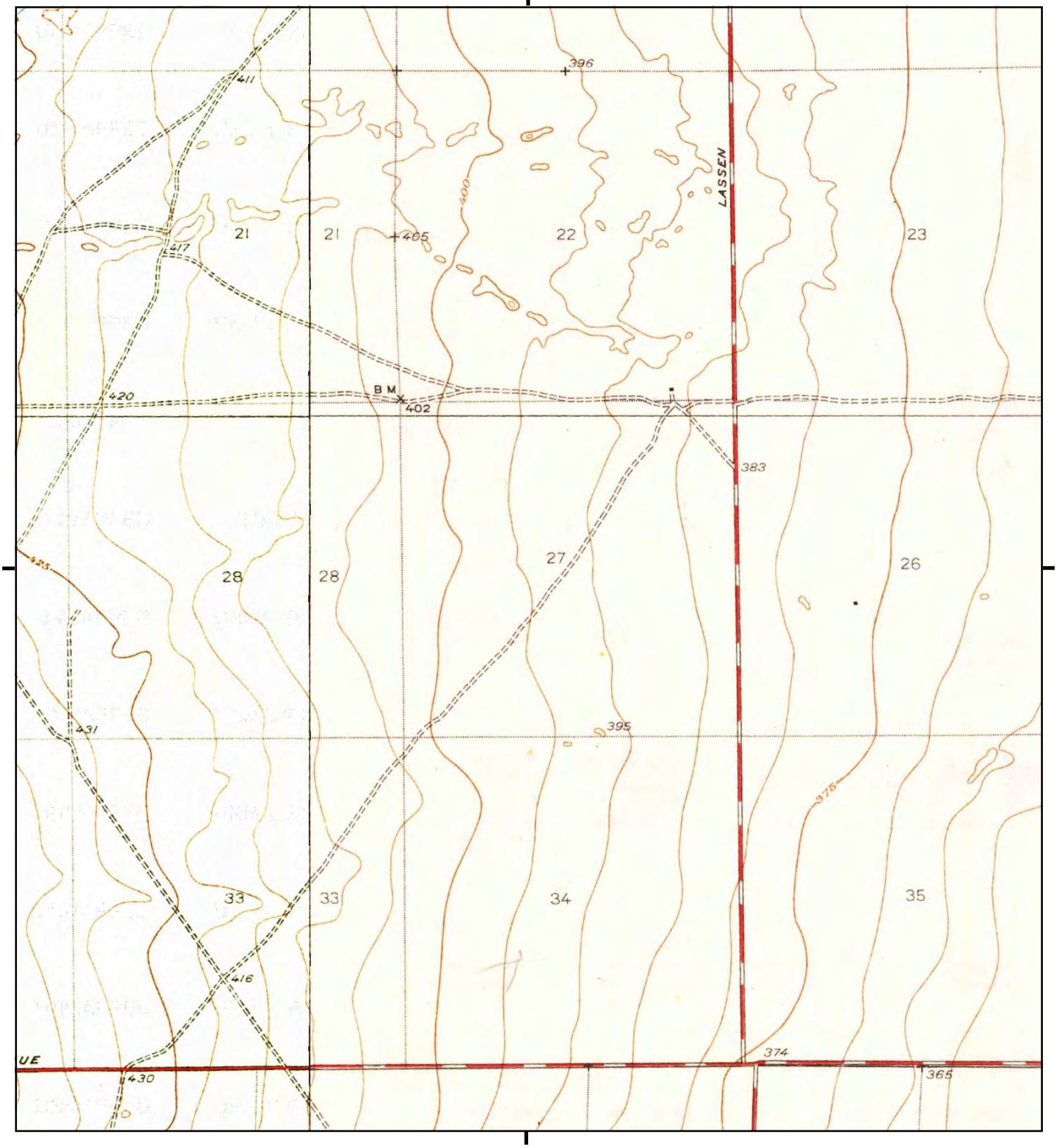
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Polvadero Gap, 1942, 15-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

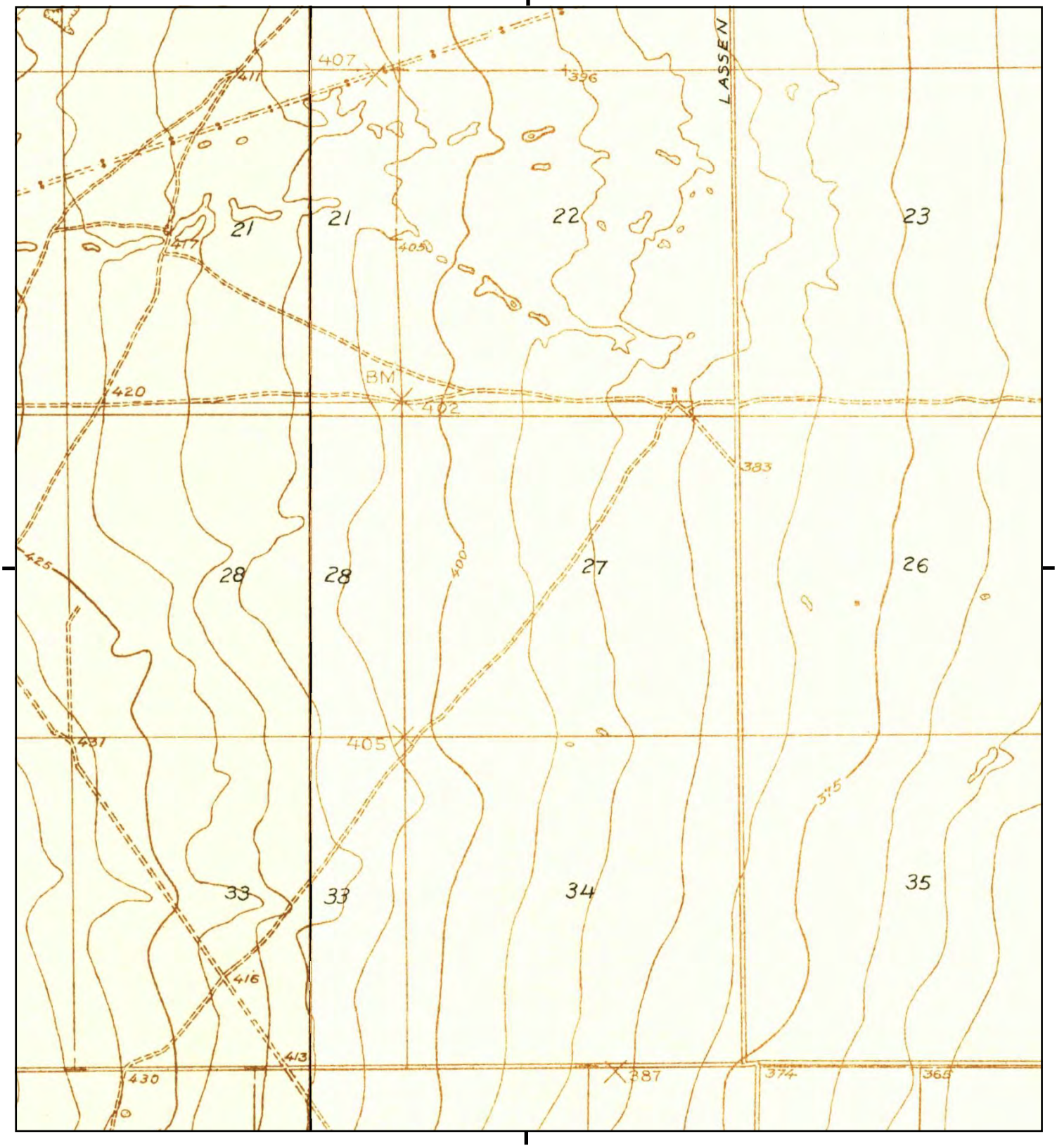
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Huron, 1937, 7.5-minute
NW, Guijarral Hills, 1937, 7.5-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N



This report includes information from the following map sheet(s).

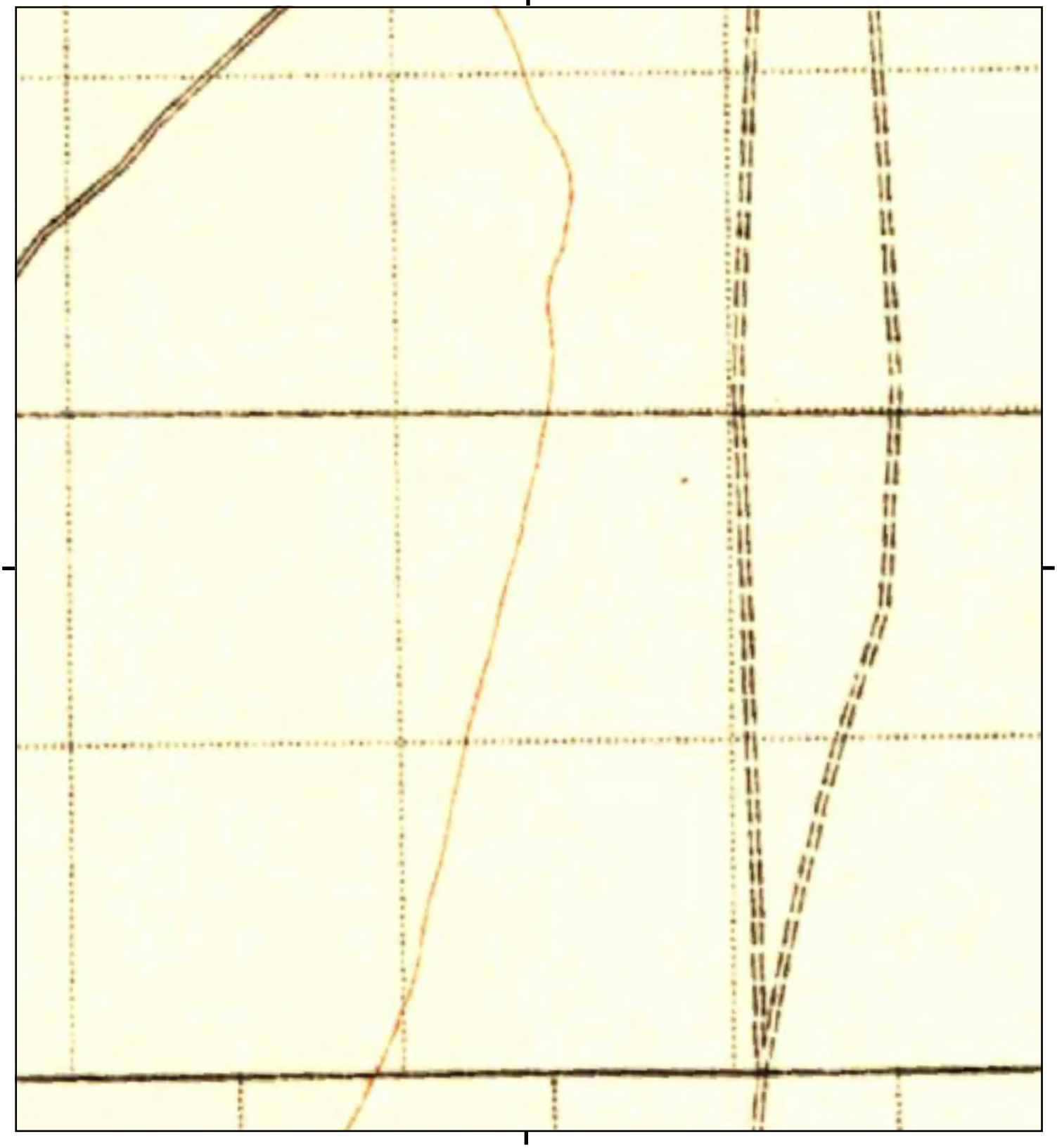
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Huron, 1933, 7.5-minute
NW, Guijarral Hills, 1933, 7.5-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

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, Coalinga, 1912, 30-minute

SITE NAME: Fifth Standard Property
ADDRESS: Fifth Standard Property
Huron, CA 93234
CLIENT: Stantec

N

Fifth Standard Property
Fifth Standard Property
Huron, CA 93234

Inquiry Number: 5068323.6
October 04, 2017

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

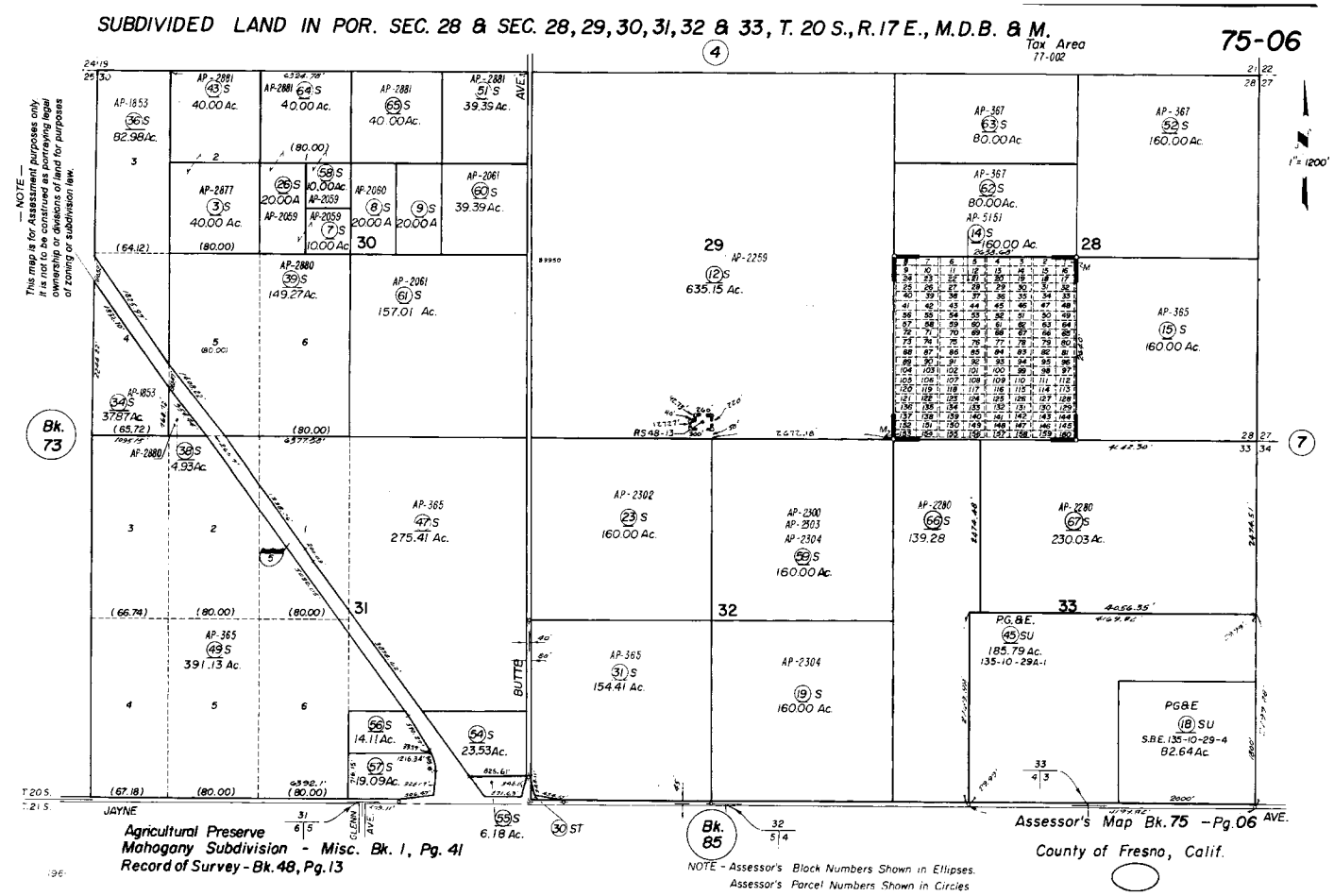
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

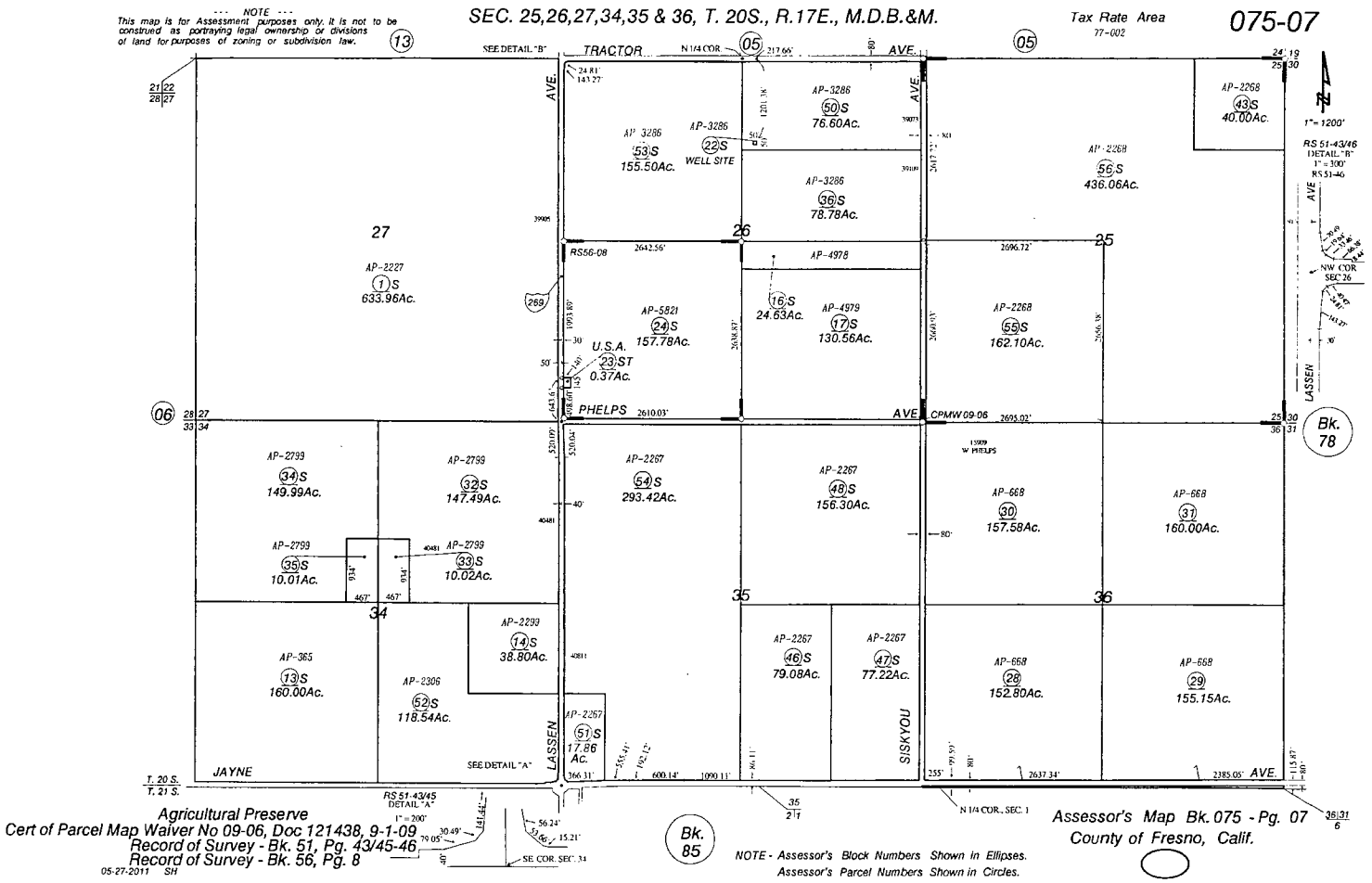
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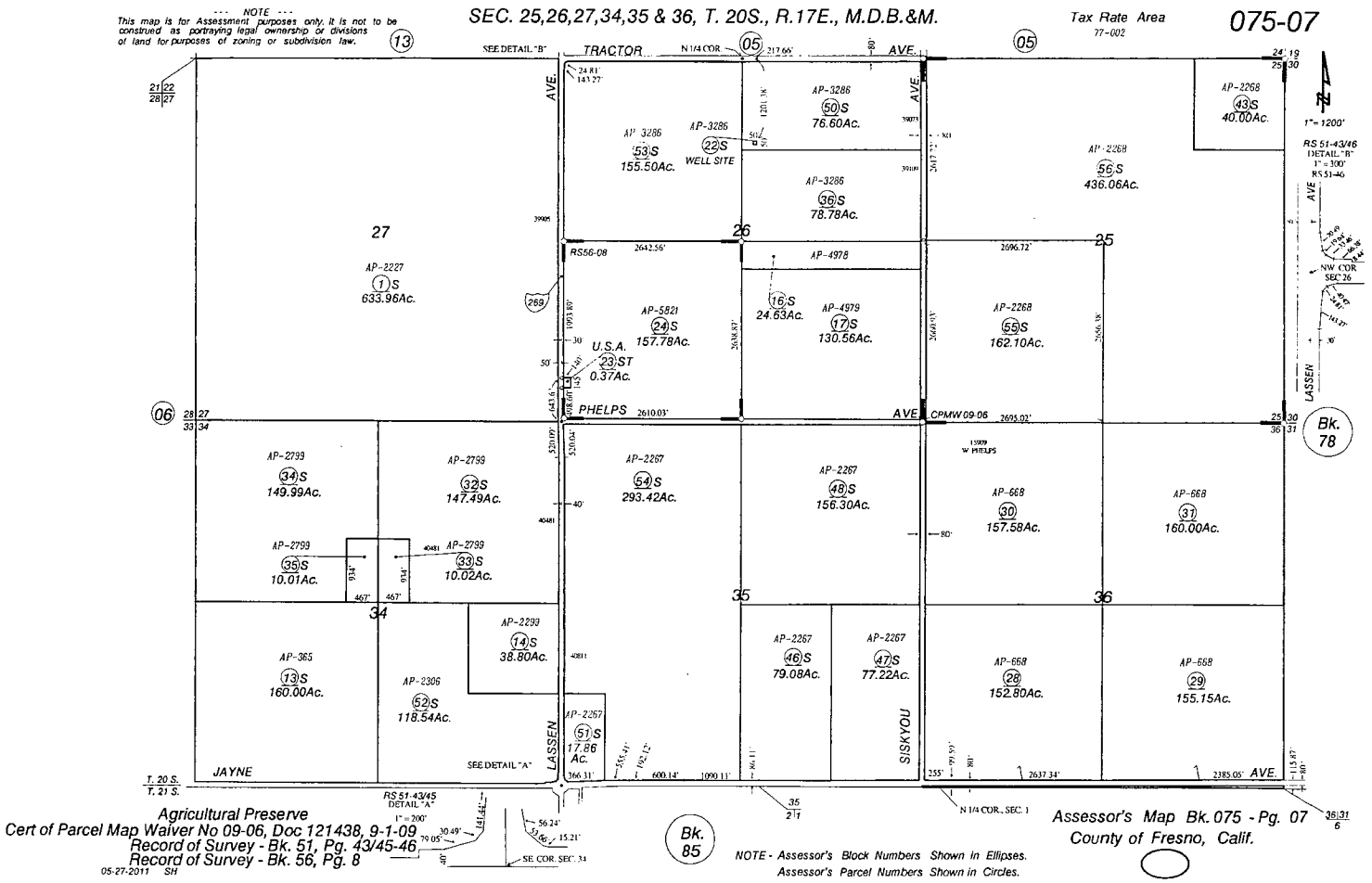
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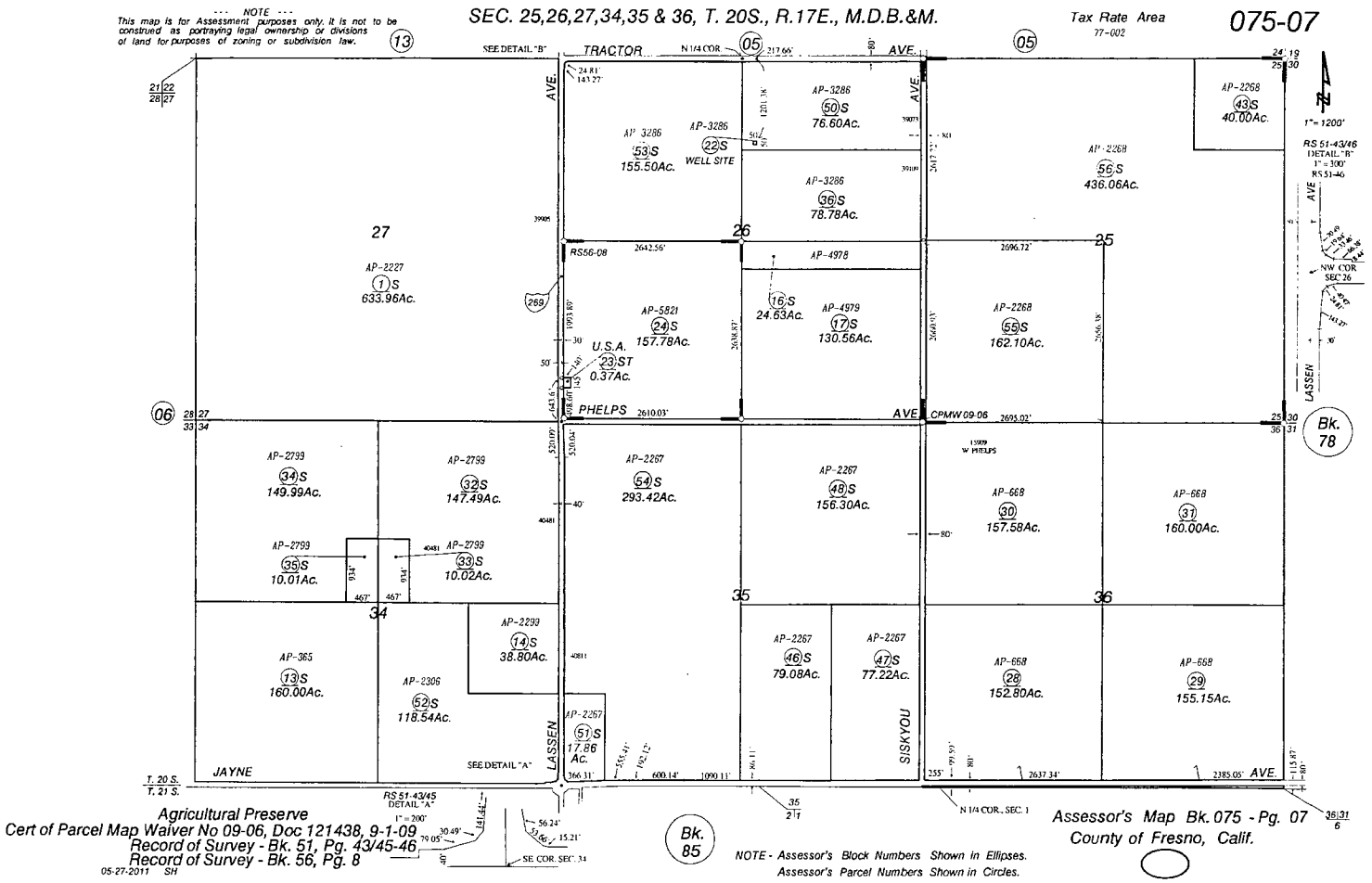
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75-06
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1" = 1200'
Bk. 73
Bk. 85
AVE.
BUTTE
JAYNE
GLENN AVE.
30 ST
AP-2881 43 S 40.00 Ac.
AP-2881 64 S 40.00 Ac.
AP-2881 65 S 40.00 Ac.
AP-2881 51 S 39.39 Ac.
AP-1853 36 S 82.98 Ac.
AP-2877 3 S 40.00 Ac.
26 S 20.00 A
58 S 40.00 Ac.
AP-2059
AP-2060 8 S 20.00 A
9 S 20.00 A
AP-2059 7 S 10.00 Ac.
AP-2061 60 S 39.39 Ac.
30
AP-2880 39 S 149.27 Ac.
AP-2061 61 S 157.01 Ac.
29
AP-2259 12 S 635.15 Ac.
AP-367 63 S 80.00 Ac.
AP-367 52 S 160.00 Ac.
AP-367 62 S 80.00 Ac.
AP-5151 14 S 160.00 Ac.
28
AP-365 15 S 160.00 Ac.
AP-1853 34 S 37.87 Ac.
AP-2880 38 S 4.93 Ac.
AP-365 47 S 275.41 Ac.
AP-2302 23 S 160.00 Ac.
AP-2300 AP-2303 AP-2304 59 S 160.00 Ac.
AP-2280 66 S 139.28
AP-2280 67 S 230.03 Ac.
31
AP-365 49 S 391.13 Ac.
32
AP-365 31 S 154.41 Ac.
AP-2304 19 S 160.00 Ac.
33
PG&E 45 SU 185.79 Ac. 135-10-29A-1
PG&E 18 SU S.B.E. 135-10-29-4 82.64 Ac.
56 S 14.11 Ac.
57 S 19.09 Ac.
54 S 23.53 Ac.
55 S 6.18 Ac.
RS 48-13
Agricultural Preserve
Mahogany Subdivision - Misc. Bk. 1, Pg. 41
Record of Survey - Bk. 48, Pg. 13
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County of Fresno, Calif.


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Tax Rate Area
77-002
075-07
TRACTOR
AVE.
LASSEN
PHELPS
JAYNE
SISKYOU
U.S.A.
SEE DETAIL "A"
SEE DETAIL "B"
AP-2227 (1) S 633.96Ac.
AP-3286 (53) S 155.50Ac.
AP-3286 (22) S WELL SITE
AP-3286 (50) S 76.60Ac.
AP-3286 (36) S 78.78Ac.
AP-2268 (43) S 40.00Ac.
AP-2268 (56) S 436.06Ac.
AP-4978 (16) S 24.63Ac.
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AP-2267 (48) S 156.30Ac.
AP-668 (30) 157.58Ac.
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AP-2799 (35) S 10.01Ac.
AP-2799 (33) S 10.02Ac.
AP-2299 (14) S 38.80Ac.
AP-365 (13) S 160.00Ac.
AP-2306 (52) S 118.54Ac.
AP-2267 (51) S 17.86 Ac.
AP-2267 (46) S 79.08Ac.
AP-2267 (47) S 77.22Ac.
AP-668 (28) 152.80Ac.
AP-668 (29) 155.15Ac.
23 ST 0.37Ac.
RS56-08
CPMW 09-06
RS 51-43/46 DETAIL "A" 1" = 200'
RS 51-43/46 DETAIL "B" 1" = 300'
RS 51-46
1" = 1200'
NW COR SEC 26
SE COR. SEC. 34
N 1/4 COR., SEC. 1
Bk. 78
Bk. 85
T. 20 S. T. 21 S.
Agricultural Preserve
Cert of Parcel Map Waiver No 09-06, Doc 121438, 9-1-09
Record of Survey - Bk. 51, Pg. 43/45-46
Record of Survey - Bk. 56, Pg. 8
05-27-2011 SH
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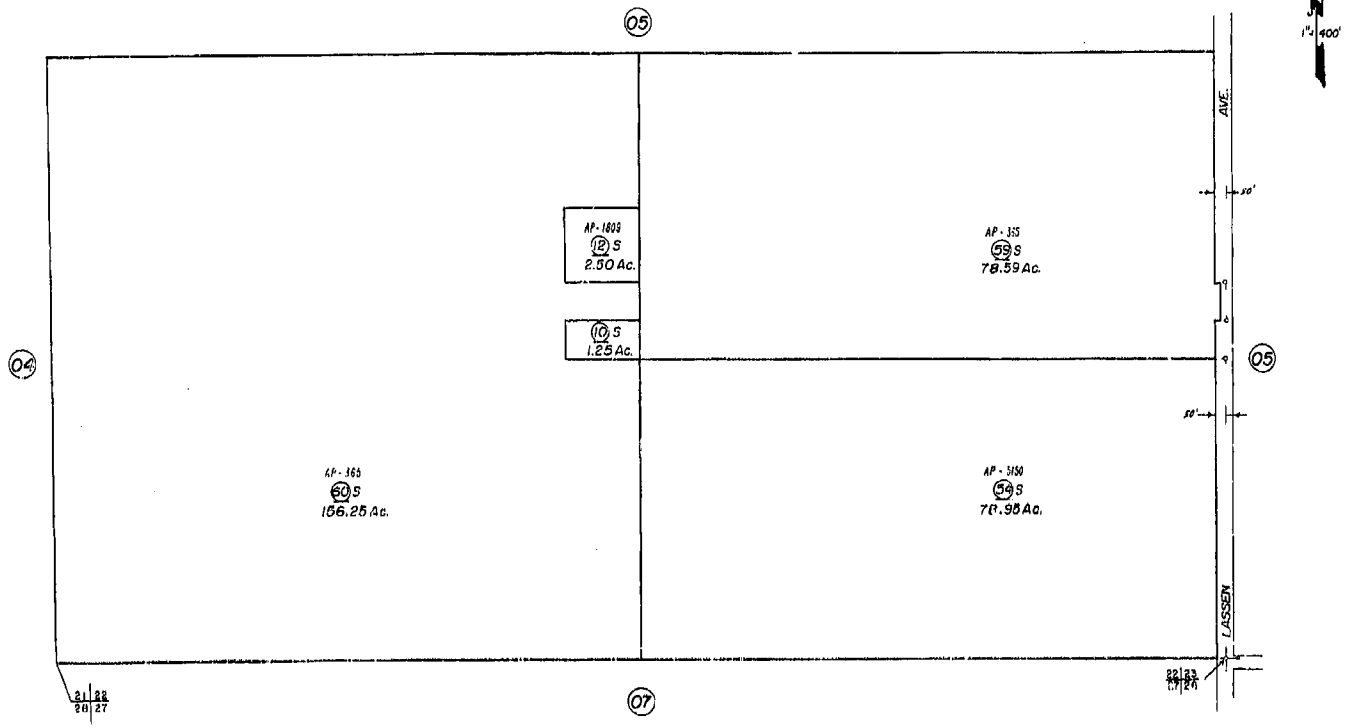

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75-13



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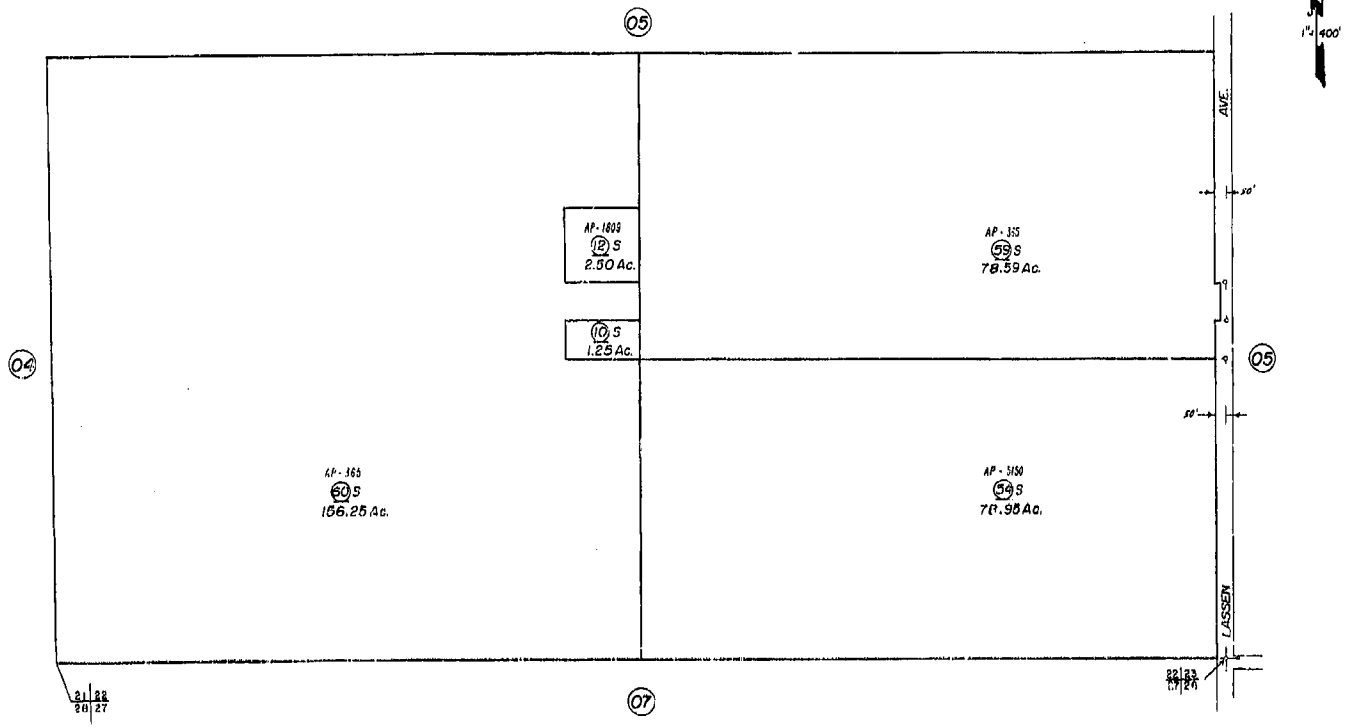
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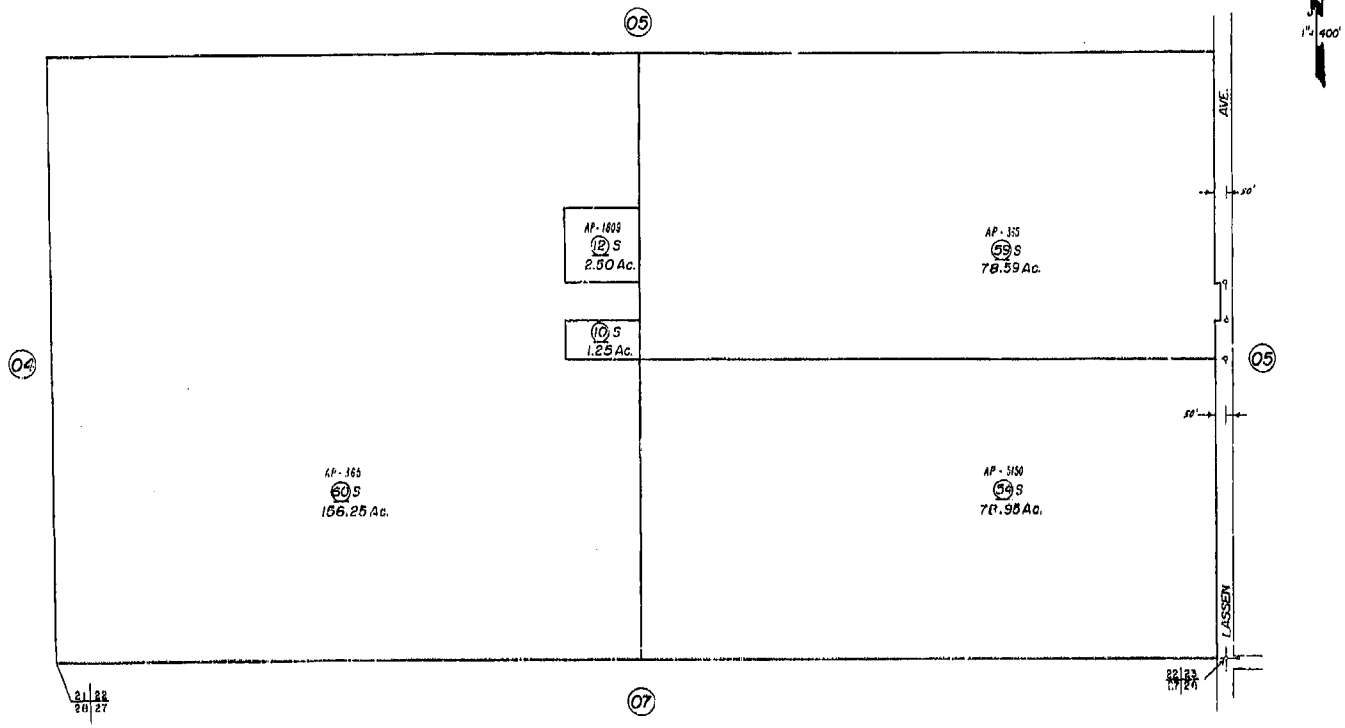
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APPENDIX H
NOISE TECHNICAL REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

Final

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Noise Technical Report

Prepared for
EC&R Solar Development, LLC

July 2019



Final

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Noise Technical Report

Prepared for
EC&R Solar Development, LLC

July 2019

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Noise Technical Report

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CHAPTER 1
Introduction

1.1 Purpose

Environmental Science Associates (ESA) has prepared this Noise Technical Report for the Fifth Standard Solar Project Complex (the Project).

The purpose of this report is to evaluate the potential for the construction and operation of the Project to expose off site sensitive receptors to noise. The analysis presented in this report was based on project-specific construction and operational features, and traffic information provided in the Traffic Study prepared for the Project (ESA 2017).

1.2 Project Location and Description

EC&R Solar Development, LLC (the Applicant), is proposing to construct, operate, maintain, and ultimately decommission the Project on a 1,594-acre site (the Project Site) in unincorporated Fresno County, 2 miles east of Interstate 5, 1.5 miles south of Huron, and approximately 13 miles east of Coalinga (Project site). The Project (shown in **Figure 1**) comprises three facilities:

- Fifth Standard Solar Facility: a 150 megawatt (MW) photovoltaic (PV) solar energy generation facility that is anticipated to require up to 1,400 acres of the site.
- Stonecrop Solar Facility: a 20 MW PV facility that would be located adjacent to Fifth Standard Solar and would require less than 200 acres of the site.
- Blackbriar Battery Storage Facility: a 20 MW battery storage facility that would be located adjacent to Fifth Standard and Stonecrop, and would utilize less than 5 acres of the site.

These three facilities are expected to share a step-up transformer and a generation intertie (gen-tie) line, which will connect the Project to the electric grid at the Gates Substation. The Project would include a substation located in the southwestern corner of the Project Site. The three facilities are proposed for processing separately, with each having its own Unclassified Conditional Use Permit so that the electricity/storage capacity from each facility could be sold separately or in combination.

Surrounding land uses include farmland, the Pacific Gas and Electric Company (PG&E) Gates Substation, and two nearby solar generating facilities (Gates Solar and West Gates Solar) (see Figure 1). The Gates Substation is located 0.4 mile southwest of the Project site. The existing West Gates Solar facility is adjacent to the Gates Substation, 0.5 mile southwest of the site. The



SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 1

Project Location

Gates Solar facility is located to the north and immediately adjacent to the Project site. The Pleasant Valley Ecological Reserve is located across the I-5, 6 miles west of the site (CDFW, 2016). New Coalinga Municipal Airport is located approximately 9 miles to the west of the site.

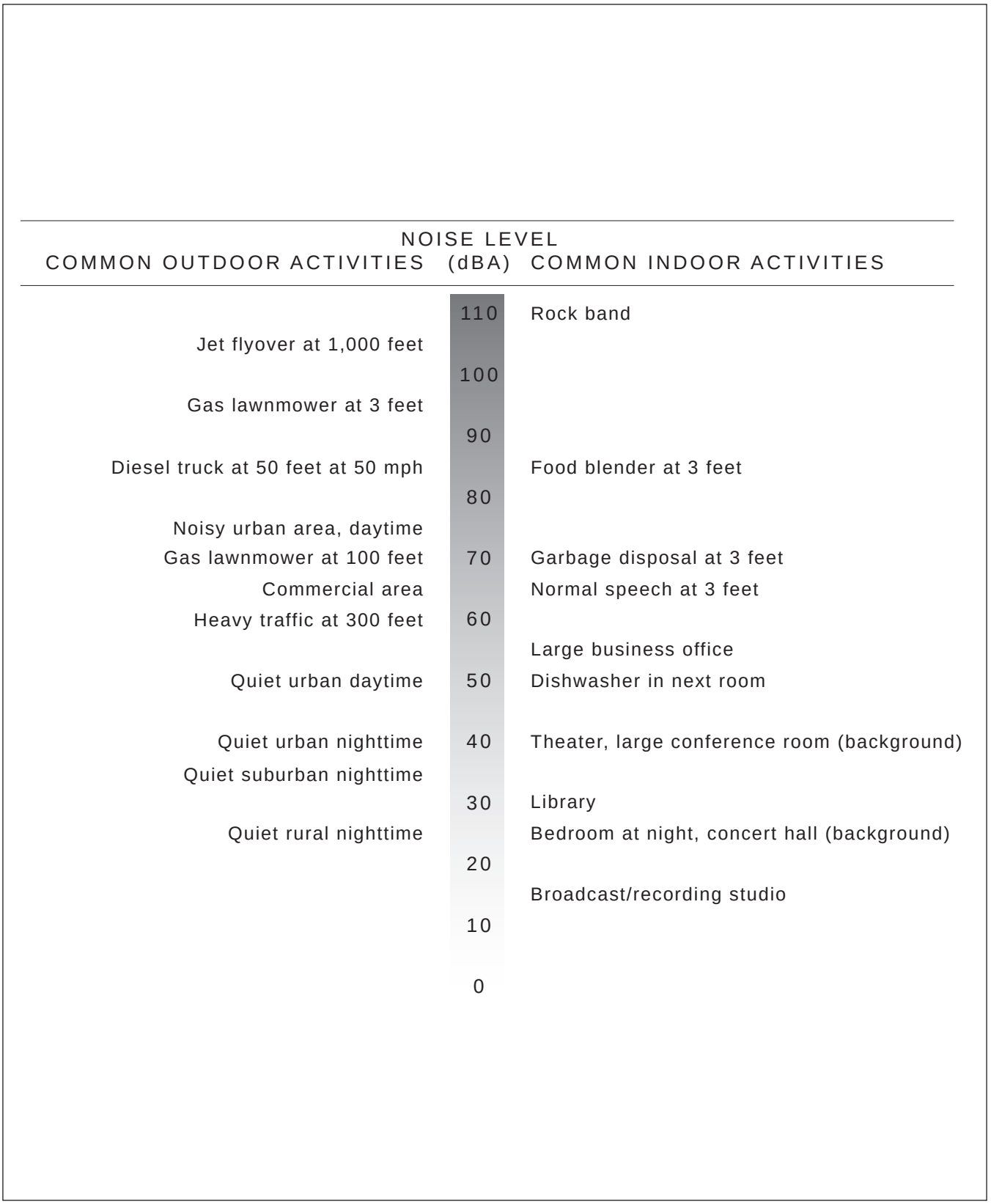
1.3 Environmental Setting

Noise can be generally defined as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as "A" weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 2**.

Noise Exposure and Community Noise

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts.



Fifth Standard Solar Project Complex . 120251

SOURCE: Caltrans, 1998

Figure 2
Typical Noise Levels

This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: the energy-equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: the instantaneous maximum noise level for a specified period of time.

L_{50}: the noise level that is equaled or exceeded 50 percent of the specified time period. The L_{50} represents the median sound level.

L_{90}: the noise level that is equaled or exceeded 90 percent of the specific time period. This is considered the background noise level during a given time period.

L_{dn}: is a 24-hour day and night A-weighted noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dB to take into account the greater annoyance of nighttime noises.

CNEL: similar to L_{dn}, the Community Noise Equivalent Level (CNEL) adds a 5-dB "penalty" for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dB penalty between the hours of 10:00 p.m. and 7:00 a.m.

As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak-hour traffic period is generally within one to two decibels of the L_{dn} at that location.

Effects of Noise on People

When a new noise is introduced to an environment, human reaction can be predicted by comparing the new noise to the ambient noise level, which is the existing noise level comprised of all sources of noise in a given location. In general, the more a new noise exceeds the ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- except in carefully controlled laboratory experiments, a change of 1-dB cannot be perceived;
- outside of the laboratory, a 3-dB change is considered a just-perceivable difference;
- a change in level of at least 5-dB is required before any noticeable change in human response would be expected; and
- a 10-dB change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

The perceived increases in noise levels shown above are applicable to both mobile and stationary noise sources. These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion, hence the decibel scale was

developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

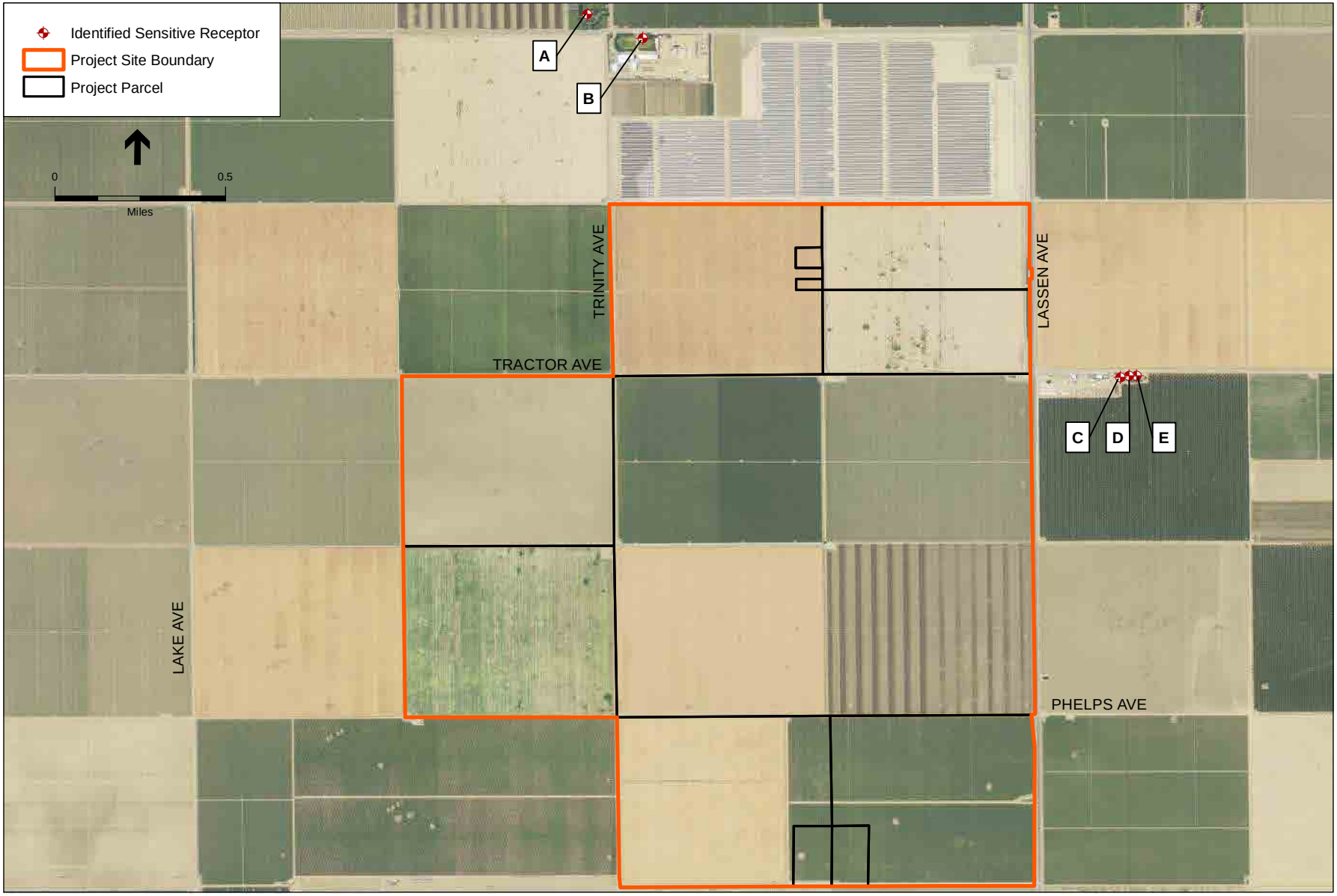
Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dB for hard sites and 7.5 dB for soft sites for each doubling of distance from the source. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dB (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles on a roadway) attenuate at a rate between 3 dB for hard sites and 4.5 dB for soft sites for each doubling of distance from the source (Caltrans, 2013).

Sensitive Receptors

Noise sensitive land uses are typically defined as residences, schools, institutions, places of worship, hospitals, care centers, and hotels. As shown in **Figure 3**, there are five sensitive receptors near to the Project Site. The closest of these receptors (Figure 3, C, D and E) are single-family residences located approximately 1,100 feet east of the eastern edge of the Project site, on West Tractor Avenue. Two other single-family residences are located approximately 2,500 and 2,900 feet north of the northern edge of the Project site (Figure 3, A and B).

Existing Noise Environment

The noise environment of the area surrounding the Project Site is characterized by rural roadways, rural agricultural noise, existing solar facilities, and scattered residences. Noise sources are primarily low-volume traffic, including tractors, large trucks, and other farm equipment, both on and off-road passenger vehicles, and distant high-volume traffic noise along Interstate 5 (I-5). According to Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment, in areas away from airports, major roads and railroad tracks, ambient noise levels can be established using a relationship of population density (FTA, 2006). Since there has been no ambient noise measurements conducted at the Project site, the guidance found in the FTA's Transit Noise and Vibration Impact Assessment was used to estimate the baseline ambient noise levels in the vicinity of the Project site. As shown in Figure 3, there are five residences located in the vicinity of the Project site. Assuming up to five people reside in each residence, the population density near the project site would be 25 people per square mile. Used the guidance provided by the FTA and 25 people per square mile population density, the approximate day-night noise level in the vicinity of the Project site was estimated to be 36 dBA L_{dn}

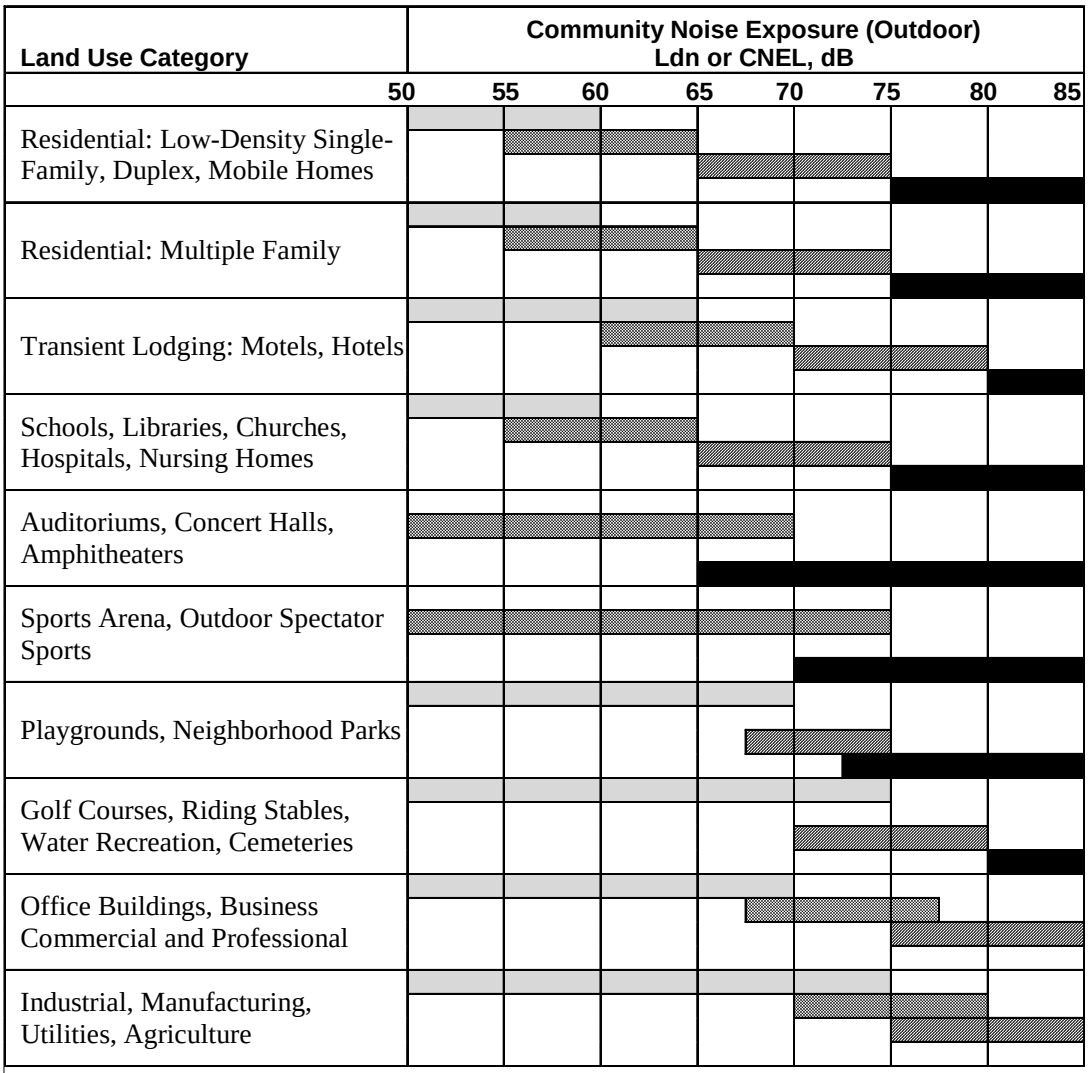


SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 3

Identified Sensitive Receptors



SOURCE: Fresno County 2000 General Plan

Figure 4

Land Use Compatibility for Community Noise Environments

CHAPTER 2
Regulatory Setting

2.1 Federal and State Regulations

There are no specific federal noise standards that would be applicable to the Project other than federal noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters (approximately 50 feet) from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

The State of California does not have statewide standards for environmental noise, but the California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 to 65 dBA L_{dn} is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA L_{dn} or above for multi-family residential uses is considered to be "clearly unacceptable." In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range General Plan for its physical development, with Section 65302(g) requiring a Noise Element to be included in the General Plan. The Noise Element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The California Noise Act of 1973 (Health and Safety Code Sections 46000–46002) sets forth a resource network to assist local agencies with legal and technical expertise regarding noise issues. The objective of the act is to encourage the establishment and enforcement of local noise ordinances.

2.2 Local Regulations

Fresno County General Plan Health and Safety Element

The Fresno County General Plan Health and Safety Element establishes Countywide land use compatibility guidelines that are applicable to the Project. Land use categories and their corresponding maximum allowable noise exposure levels (in terms of L_{dn} or CNEL) are shown in **Figure 4**. This table indicates that the maximum allowable noise exposure level for residential land use is 60 dBA L_{dn} or CNEL (Fresno County, 2000). In addition, the following Fresno County General Plan policies are relevant to the Project:

Policy HS-G.1: The County shall require that all proposed development incorporate design elements necessary to minimize adverse noise impacts on surrounding land uses.

Policy HS-G.4: So that noise mitigation may be considered in the design of new projects, the County shall require an acoustical analysis as part of the environmental review process where:

a. Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels that are "generally unacceptable" or higher according to the Chart HS-1: "Land Use Compatibility for Community Noise Environments;"

b. Proposed projects are likely to produce noise levels exceeding the levels shown in the County's Noise Control Ordinance at existing or planned noise-sensitive uses.

Policy HS-G.6: The County shall regulate construction-related noise to reduce impacts on adjacent uses in accordance with the County's Noise Control Ordinance.

Policy HS-G.8: The County shall evaluate the compatibility of proposed projects with existing and future noise levels through a comparison to Chart HS-1, "Land Use Compatibility for Community Noise Environments." [Chart HS-1 is presented below as **Figure 4**.]

Fresno County Noise Ordinance

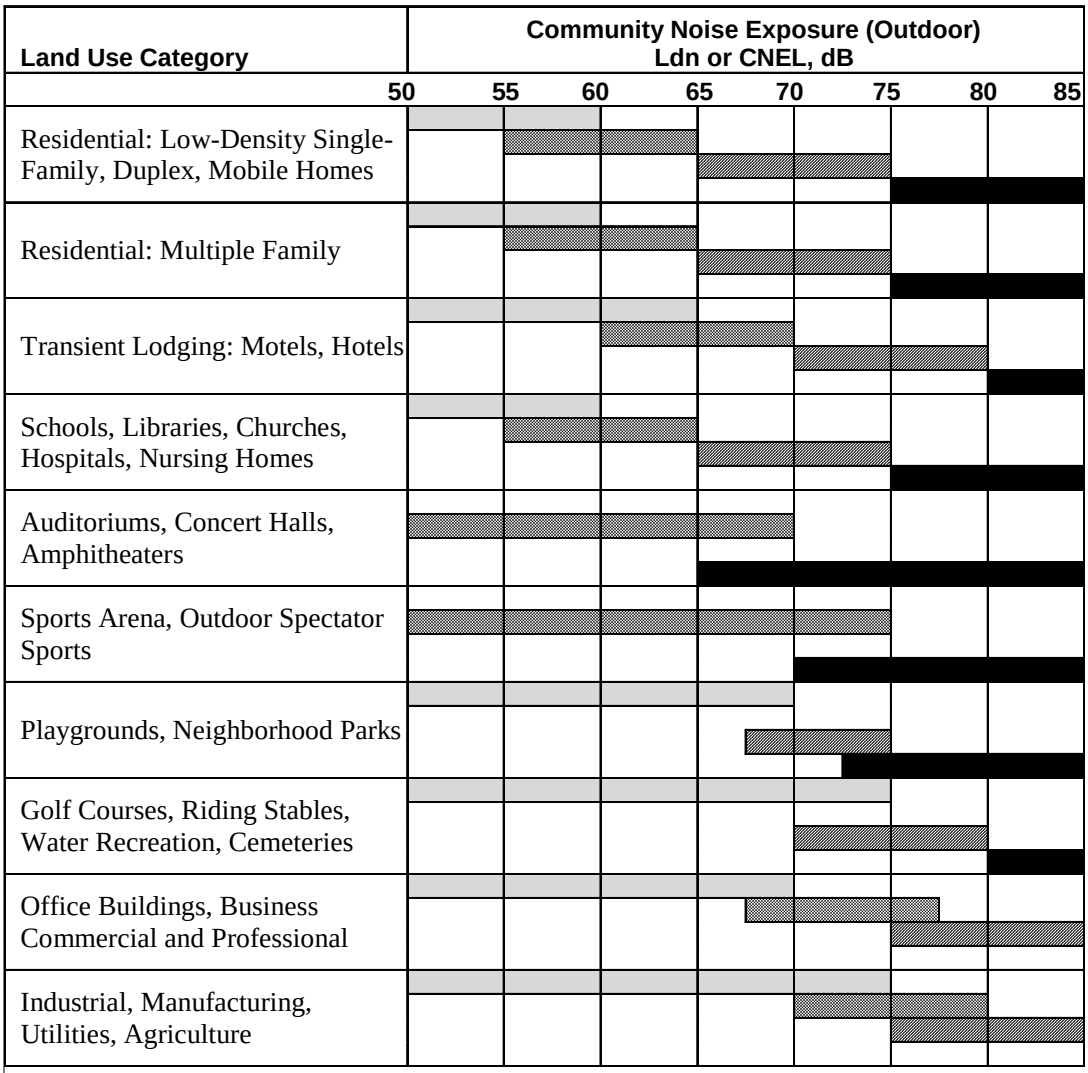
The Fresno County Noise Ordinance (Chapter 8.40 of the Fresno County Development Code) applies to noise sources that can be regulated by Fresno County (such as equipment related to commercial and industrial land uses). **Table 1** summarizes the County's exterior noise standards that would be applicable to the Project. As indicated in the table, these standards would be exceeded if operation and/or maintenance noise from the Project were to be in excess of L_{50} of 50 dBA during daytime hours at the nearby residences. Noise as a result of construction activities is exempt from the standards provided it is generated after 6:00 a.m. and before 9:00 p.m. on Monday through Friday, or after 7:00 a.m. and before 5:00 p.m. on weekends. In addition to the exterior noise standards, the Fresno County Municipal Code also identifies a noise level limit of 50 dBA for electrical substations when measured 50 feet from an affected residence.

TABLE 1
FRESNO COUNTY EXTERIOR NOISE LEVEL STANDARDS

Cumulative min/hr (Lx)	Daytime dBA 7 a.m. to 10 p.m.	Nighttime dBA 10 p.m. to 7 a.m.
30 (L_{50})	50	45
15 (L_{25})	55	50
5 ($L_{8.3}$)	60	55
1 ($L_{1.7}$)	65	60
0 (L_{max})	70	65

NOTE: In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.

SOURCE: Chapter 8.40 of the Fresno County Development Code



SOURCE: Fresno County 2000 General Plan

Figure 4

Land Use Compatibility for Community Noise Environments

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CHAPTER 3
Impact Discussion

3.1 Short-term Noise Impacts

Short-term noise would be generated by the Project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips.

Construction Activities

Construction activity noise levels at the Project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. The Blackbriar Battery Storage Facility is projected to begin construction in February 2019, and be completed in June 2019; construction of the Fifth Standard Solar Facility is anticipated to begin in April 2019, and be completed in December 2019; and construction of the Stonecrop Solar Facility is anticipated to begin in August 2019 and be completed in December 2019.

Construction activities would include mobilization, construction grading and site preparation, installation of drainage and erosion controls, PV panel/ tracker assembly, and solar field construction. **Table 2** shows typical reference noise levels of off-road construction equipment likely to be used during Project construction.

TABLE 2
REFERENCE CONSTRUCTION EQUIPMENT NOISE LEVELS
(50 feet from source)

Type of Equipment	L_{max}, dBA
Backhoe	80
Grader	85
Concrete Mixer Truck	85
Front Loader	80
Pneumatic Tools	85
Air Compressor	80
Excavator	85
Rollers	85
Scrapers	85

SOURCE: FHWA, 2006.

The mobilization, construction grading and site preparation phase of construction would include extensive use of heavy earth moving/excavating and compacting equipment such as backhoes, front loaders, rollers, scrapers, graders and water trucks and as a result this construction phase

would generate the highest noise levels. The operation of each piece of off-road equipment within the Project site would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the Project area and would not likely be operating concurrently with other equipment at the same location. However, for a more conservative assessment of construction noise levels at the closest sensitive receptor, it is assumed for this analysis that two of the loudest pieces of construction equipment would be operating simultaneously at a location on the Project boundary that would be closest to each of the offsite sensitive receptors.

All land uses surrounding the Project site are agricultural. The nearest sensitive land use to the Project are single-family residences, located approximately 1,100 feet to east, and 2,500 feet and 2,900 feet to the north of the Project site. Using the reference noise levels provided in **Table 3**, a excavator and grader running at the same time and location could generate a maximum noise level of 88 dBA from a distance of 50 feet. **Table 3** shows the maximum construction noise exposure at all identified sensitive receptors assuming a 7.5 dB drop off rate per doubling of distance (see Section 1.3).

TABLE 3
CONSTRUCTION NOISE LEVELS AT EXISTING LAND USES[1]

Sensitive Receptors	Distance to Nearest Sensitive Receptor (feet)	Maximum Noise Level, dBA
Single-family residence located east of the Project Boundary.	1,100	54
Single-family residence located north of the Project Boundary.	2,500	46
Single-family residence located north of the Project Boundary.	2,900	44

NOTE:
[1] Assumed excavator and grader running at the same time.

SOURCE: FHWA, 2006

The Project would result in a violation of the County's noise standards if construction activity would occur outside of the allowable daytime hours specified by the County's noise ordinance. According to the County's Municipal Code, Article 8.40.060, construction activities are exempt from the standards if they are undertaken after 6:00 a.m. or before 9:00 p.m. on Monday through Friday, or after 7:00 a.m. or before 5:00 p.m. on weekends.

Although construction activities associated with the Project would be temporary in nature and the maximum noise levels discussed above would be short-term, noise generated during Project construction could temporarily elevate ambient noise levels in and around the Project Site if construction were to occur outside of the County's construction exemption hours. However, implementation of **Mitigation Measure NOISE-1** would reduce this potential noise impact by requiring the implementation of responsible construction practices and restricting construction to the daytime hours.

Construction Vehicle Trips

Project construction traffic would primarily include the delivery of construction equipment, vehicles and materials, and daily construction worker trips. A majority of the equipment (e.g., solar PV panels, inverters, tracker steel) would be delivered to the site in standard widths and lengths by trucks, vans, or covered flatbed trailers. Substation equipment, inverter enclosures, and cranes would be delivered to the Project site on wide-load trailers.

The specific equipment and material hauling route will be determined by the contractor. However, it is assumed construction materials and worker trips would originate from the major urban areas in the region and nearby communities. Based on the existing roadway network serving the Project area, it is assumed trucks would travel to and from the construction site via I-5 (using the Jayne Avenue interchange to/from Lassen Avenue), State Route (SR) 198 (east of Lassen Avenue), and SR 269 (Lassen Avenue). Therefore, deliveries of solar panels from the Port of Stockton or Port of Long Beach would be routed to the Project site via I-5 to Jayne Avenue, then to SR 269. Miscellaneous deliveries of equipment and materials would come from the City of Fresno area and would access the project site via SR 198 and SR 269. Assuming workers would be drawn from the City of Fresno area, it is anticipated worker trips would use SR-198 (east of Lassen Avenue) and SR-269 (Lassen Avenue) to access the Project site.

It is anticipated that during the anticipated 334 total days of construction the Project would result in an average of up to 600 daily one-way vendor and worker trips. At the peak of construction (when construction of two of the three facilities is underway) there could be up to 1,200 daily one-way trips (ESA 2017). The existing traffic along roadways in the vicinity of the Project site (i.e., Lassen Avenue, Jayne Avenue, and Dorris Avenue) ranges from 2,000 to 3,500 vehicle trips per day (Caltrans, 2015 and Fresno Council of Governments, 2013).

Existing and existing plus Project construction traffic noise levels were calculated using FHWA's traffic noise prediction equations (FHWA RD-77-108) along Lassen Avenue, Jayne Avenue, and Dorris Avenue. As shown in **Table 4**, Project construction-related traffic would increase existing traffic noise levels along local roadways by approximately 0 to 2 dB and would not result in a perceptible increase in traffic noise along local roadways in the vicinity of the Project site. Therefore, overall short-term construction related impacts associated with worker commute and equipment transport to the project site would not be significant.

TABLE 4
PREDICTED TRAFFIC NOISE INCREASES
FROM HAUL AND WORK TRIPS ALONG LOCAL ROADWAYS

Roadway Segment	Traffic Noise Level, dBA, Ldn[1]		
	Existing	Existing Plus Project	Incremental Increase
	(A)	(B)	(B - A)
1. Lassen Avenue, north of Jayne Avenue	58	61	3
2. Jayne Avenue, east of I-5	60	61	1
3. Dorris Avenue, east of I-5	61	61	0

NOTE:

[1] Noise levels 100 feet from roadway were determined using FHWA Traffic Noise Prediction Model (FHWA RD-77-108). See Appendix A for modeling details.

SOURCE: ESA, 2017.

3.2 Long-term Noise Impacts

Traffic Noise

The Project would introduce additional traffic volumes to local roadways, particularly along Jayne Avenue and Lassen Avenue. The additional traffic trips are expected to be the result of on-site operations and maintenance (O&M) activities that could require at consist of 1 site manager, 4 technicians, and 6 security personnel. Additional support personnel would be employed as needed. Occasionally, workers would be present at the Project site to undertake panel washing.

The noise environment surrounding the Project site is influenced primarily by local traffic along Jayne Avenue, Dorris Avenue, and Lassen Avenue. Full-time staff (11 people) will be monitoring operations remotely from an existing facility, most likely in Fresno County, and would not be driving to the project sites. The only traffic trips to the Project sit would be by part-time staff (up to 4 people) to wash the solar panels periodicity. The daily traffic counts along these segments of roadway range between 2,000 to 3,500 vehicles per day (Caltrans, 2015; Fresno Council of Governments, 2013). Since the Project would result in a less than 1 percent increase of the total existing traffic volume along Jayne Avenue and Lassen Avenue, the Project would not expose nearby sensitive receptors to traffic noise levels that could be considered a substantial permanent increase in traffic noise. Therefore, project related long-term traffic noise impacts would not be significant.

Onsite Noise

According to the County Ordinance, Chapter 8.40.040 (Exterior Noise Standards), it is unlawful for any person at any location within the unincorporated area of the County to create any noise or to allow the creation of any noise which causes the exterior noise level at a sensitive land use to exceed the noise standards provided in Table 2. In addition, County Ordinance, Chapter 8.40.090, noise sources associated with the operation of electrical substations shall not exceed 50 dBA L_{eq} as measured at the nearest sensitive land use.

To be conservative, for the purposes of this analysis, the most restrictive applicable sound limits identified in County Ordinance Chapter 8.40.090 were applied to the project. Therefore, for this impact analysis, if existing sensitive receptors near the project site would be exposed to a noise level greater than 50 dBA L_{eq} during Project operation, a permanent substantial noise impact would result.

The Project includes an onsite Project substation, where power generated/stored at each facility would be increased to match that of the point of interconnection at the adjacent Gates Substation. An existing transmission substation owned by PG&E (Gates Substation) is located approximately 0.4 mile southwest of the Project site at the southwest corner of West Jayne Avenue and South

Lake Avenue. An overhead generation tie (gen-tie) line would convey electricity generated at the Project site to the Gates Substation for distribution to customers within the local and regional grid by Pacific Gas and Electric Company (PG&E). The gen-tie line would require an approximately 0.34 mile of 230-kV, single-circuit overhead electric transmission line to connect the Project site to the Gates Substation.

Major components of the Project include solar PV panels and arrays; a tracker system; an onsite substation, an electrical interconnection system, and an energy storage facility (most likely utilizing batteries). The Project could use either 1 MVA from 200V to 12 kV or a 1 MVA from 12V to 34.5 kV transformers, which can generate a noise level of 58 dBA L_{eq} from a distance of 5 feet (NEMA, 1993). It is assumed that a 1 MW Commercial Solar PV Inverter would be used at the Project site, which could generate a noise level of 61 dBA L_{eq} from a distance of 5 feet and motors can generate a noise level of 61 dBA L_{eq} from a distance of 5 feet (NEMA, 1993). The proposed gen-tie line would be required to incorporate standard design practices to reduce corona discharge noise to below 65 dBA L_{eq} as measured at a distance of 10 feet. **Table 5** shows the operational noise exposure at residences located near the Project site assuming a 7.5 dB drop off rate per doubling of distance for onsite equipment and 4.5 dB drop-off rate per doubling of distance for corona noise. As shown in Table 6, combined noises generated by the transformer, inverters and generators would not exceed the County's 50 dBA L_{eq} threshold and would not result in an impact.

TABLE 5
TRACKER SYSTEM OPERATIONAL NOISE LEVELS
AT NEAREST EXISTING LAND USE LOCATED 1,100 FEET FROM PROJECT BOUNDARY

Source	Reference Noise Level (dBA L_{eq})[1]	Noise Exposure at the nearest sensitive land uses located 1,100 feet from the Project Boundary
Transformer	58	24
Inverter	65	31
Motor	61	27
Corona Noise	65	45
Cumulative Noise Level		45

NOTE:
[1] Assumed a far-field distance of 50 feet. The far-field is the region beyond the near field, where the effects of source dimensions are less important and noise propagates with a simple relationship between sound level and distance.

SOURCE: NEMA, 1993.

With respect to the Project substation, according to the National Electrical Manufacturers association (NEMA), a large transformer at a substation can generate a noise level of 71 dBA Leq from a distance of 5 feet (NEMA, 1993). This noise level is located within the acoustical near-field of the substation, an area in which a noise propagation drop-off rate cannot be readily calculated because there is no simple relationship between sound level and distance in this area, unlike that which does exist beyond the near-field, in an area termed the 'far-field'[1]. However, a general rule of thumb for determining the boundary between near-field and far-field is to make

[1] The far-field is an area where noise propagates with a simple relationship between sound level and distance.

the minimum measured distance the longest dimension of the source multiplied by three. Assuming the longest dimension length of the Project transformer is 15 feet, the far-field distance would be approximately 45 feet. Assuming a 7.5 dB drop off rate per doubling of distance and an operating noise level of 71 dBA L_{eq} from a far field distance of 45 feet, the nearest sensitive receptor located 1,100 feet from the Project's eastern boundary would be exposed to approximately 36 dBA L_{eq} while the substation is in operation. Since noise generated by the substation would not exceed the County's 50 dBA L_{eq} threshold, noise generated by the substation would not result in a permanent substantial increase in ambient noise and would not result in an impact.

CHAPTER 4
Recommended Mitigation Measures

Mitigation Measure NOISE-1. Implementation of the following mitigation measures would reduce short-term construction related noise impacts associated with implementation of the proposed project to comply with the County Code construction noise standards.

- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- The contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles.
- During all project construction, the construction contractor shall limit all noise-producing construction related activities to the hours of 6:00 a.m. to 9:00 p.m., Monday through Friday, and to the hours of 7:00 a.m. and 9:00 p.m. on Saturdays and Sundays.

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CHAPTER 5
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Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

STANTEC CONSULTING SERVICES INC.

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APPENDIX I
TRAFFIC STUDY REPORT

Update: EC&R Solar Development, LLC is now known as RWE Solar Development, LLC

Final

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Traffic Study Report

Prepared for
EC&R Solar Development, LLC

July 2017



Final

EC&R SOLAR DEVELOPMENT, LLC
FIFTH STANDARD SOLAR PROJECT COMPLEX
FRESNO COUNTY, CALIFORNIA

Traffic Study Report

Prepared for
EC&R Solar Development, LLC

July 2017

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CHAPTER 1
Introduction

1.1 Purpose

This Traffic Study Report (report) was prepared for the Fifth Standard Solar Project Complex (Project). The purpose of this report is to evaluate the potential for the construction and operation of the Project to adversely affect traffic flow and circulation, and traffic safety in the project area. The analysis included in this report was based on project-specific construction and operational activities and features.

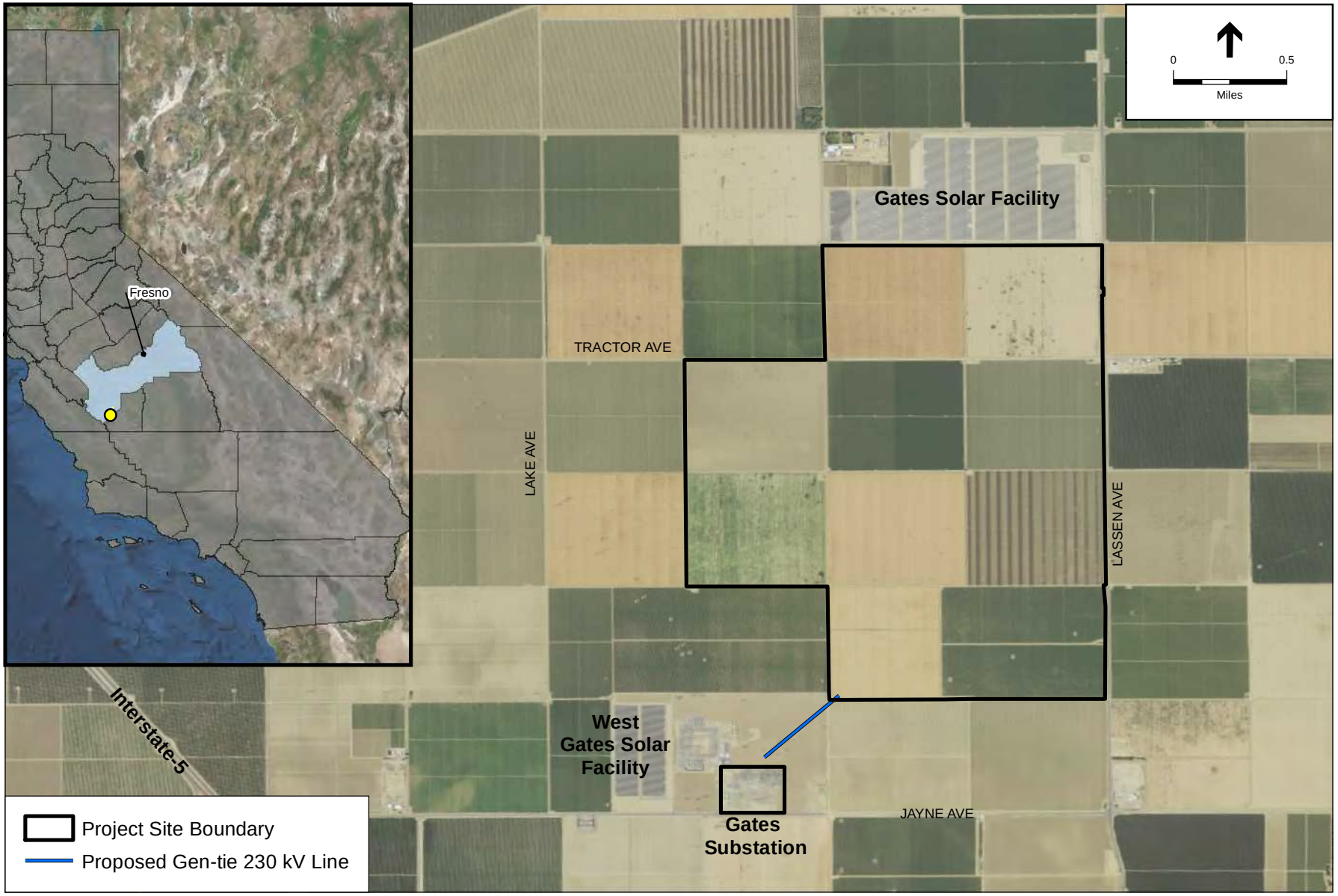
1.2 Project Location and Description

EC&R Solar Development, LLC (the Applicant), is proposing to construct, operate, maintain, and ultimately decommission the Project on a 1,594-acre site in unincorporated Fresno County, 2 miles east of Interstate 5, 1.5 miles south of the City of Huron, and approximately 13 miles east of the City of Coalinga. The Project (shown in **Figure 1**) comprises three facilities:

- Fifth Standard Solar Facility: a 150-megawatt (MW) photovoltaic (PV) solar energy generation facility that is anticipated to require up to 1,400 acres of the site.
- Stonecrop Solar Facility: a 20-MW PV facility that would be located adjacent to Fifth Standard Solar and would require fewer than 200 acres of the site.
- Blackbriar Battery Storage Facility: a 20-MW battery storage facility that would be located adjacent to Fifth Standard and Stonecrop, and would occupy fewer than 5 acres of the site.

These three facilities are expected to share a step-up transformer and a generation intertie (gen-tie) line, which will connect the Project to the electric grid at the Pacific Gas and Electric Company (PG&E) Gates Substation. The three facilities are proposed for processing separately, with each having its own Unclassified Conditional Use Permit so that the electricity generated or storage capacity from each facility could be sold separately or in combination.

Surrounding land uses include farmland, the Gates Substation, and two nearby solar generating facilities (Gates Solar and West Gates Solar) (see Figure 1). The Gates Substation is located 0.4 mile southwest of the Project site. The existing West Gates Solar facility is adjacent to the Gates Substation, 0.5 mile southeast of the site. The Gates Solar facility is located immediately north of the Project site.



SOURCE: EC&R Solar Development, LLC, 2016

Fifth Standard Solar Project Complex. 120251

Figure 1

Project Location

1.3 Environmental Setting

The Project site is located in unincorporated Fresno County, on the west side of State Route (SR) 269 (Lassen Avenue), and approximately 2 miles east of Interstate 5 (I-5). Access to the Project site is provided by the existing roadway network described below.

Major Highways

SR 269 (Lassen Avenue) is an undivided conventional state highway that extends north/south for about 25 miles between SR 33 in the City of Avenal and SR 145 in the unincorporated community of Five Points. It intersects with SR 198 (Dorris Avenue) north of Huron, and with I-5 south of the Project site; SR 269 also connects with I-5 via Jayne Avenue, a two-lane road. This highway has two 12-foot-wide travel lanes and paved shoulders. According to the most-recent data published by Caltrans, the average daily traffic volume on SR 269 in the vicinity of the Project site is approximately 2,000 vehicles (about 14 percent trucks), with approximately 200 vehicles during the peak traffic hour (Caltrans, 2016b, 2016c).

Local Roads

Local access to the Project site would be provided from three points along Lassen Avenue, at Tractor Avenue (a two-lane County road east of Lassen Avenue, and an unimproved County road west of Lassen Avenue), at Phelps Avenue (an unimproved County road on both sides of Lassen Avenue), and at an unnamed/unimproved road at the southeast corner of the project site. The unpaved roads primarily serve agriculturally-related traffic, with corresponding very low existing traffic volumes. The site access roads would be improved to 24 feet width, with two 10-foot-wide travel lanes with two 2-foot-wide shoulders.

Airports

There are no airports in the vicinity of the Project site. The nearest public airport is the Mendota Airport is located approximately 44 miles north of the Project site. The privately-owned Harris Ranch Airport is approximately 10 miles northwest of the site.

Public Transportation Services

Public transportation in the Project site vicinity is provided by the Fresno County Rural Transit Agency (FCRTA/San Joaquin Transit), which offers weekday dial-a-ride public transportation service for residents in are communities, such as Huron, Avenal, and Coalinga (FCRTA, 2017). Coalinga transit operates on Lassen Avenue in the project area.

Non-Motorized Transportation

There are currently no dedicated pedestrian or bicycle facilities in the immediate vicinity of the Project site or along the surrounding roadways or highways, but SR 269 (Lassen Avenue) in the Project area is shown as an “existing or planned bikeway” in the Fresno County General Plan (Transportation and Circulation Element) (Fresno County, 2000).

CHAPTER 2
Regulatory Setting

2.1 State Regulations

California Department of Transportation (Caltrans)

Caltrans has jurisdiction over state highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Fresno County is under the jurisdiction of Caltrans District 6. The following Caltrans regulations apply to potential Transportation and Traffic impacts of the Project:

California Vehicle Code (CVC), Division 15, Chapters 1 through 5 (Size, Weight, and Load). Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.

California Street and Highway Code, Sections 660-711, 670-695. Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

2.2 Local Regulations

Fresno County General Plan

The Transportation and Circulation Element of the County General Plan provides the framework for Fresno County decisions concerning the Countywide transportation system, which includes various transportation modes and related facilities. It also provides for coordination with the cities and unincorporated communities within the County, with the Regional Transportation Plan adopted by the Council of Fresno County Governments, and with state and federal agencies that fund and manage transportation facilities within the County. This element of the General Plan sets out goals, policies, and programs related to transportation and circulation. The following transportation-related policies are applicable to the Project:

Policy TR-A.3: The County shall require that new or modified access to property abutting a roadway and to intersecting roads conform to access specifications in the Circulation Diagram and Standards section. Exceptions to the access standards may be permitted in the manner and form prescribed in the Fresno County Zoning and Subdivision Ordinances, provided that the designed safety and operational characteristics of the existing and planned roadway facility will not be substantially diminished.

Policy TR-A.5: The County shall require dedication of right-of-way or dedication and construction of planned road facilities as a condition of land development, and require an analysis of impacts of traffic from all land development projects including impacts from

truck traffic. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. The County may allow a project to fund a fair share of improvements that provide significant benefit to others through traffic impact fees.

Policy TR-A.8: The County shall ensure that land development that affects roadway use or operation or requires roadway access to plan, dedicate, and construct required improvements consistent with the criteria in the Circulation Diagram and Standards section of this element.

Fresno County Bicycle and Regional Trails Master Plan

The Fresno County Department of Public Works and Planning adopted the Regional Bicycle Recreational Trails Master Plan to establish a framework for future development of the County's bicycle and recreational trail network and makes the County eligible for local, State, and federal funding (Fresno County, 2013). The Bicycle and Regional Trails Master Plan provides a comprehensive, long-term planning horizon for development of an extensive regional bikeway and recreational trails network that connects cities and unincorporated areas Countywide. The Plan implements various policies contained in the Transportation and Circulation, and Open Space and Conservation Elements of the County's General Plan (Fresno County, 2000).

The Plan was amended in 2013 to meet the requirements of the 2006 Measure "C" Transportation Sales Tax Extension, Local Transportation Program by adding recreational trails to the plan. The Plan coordinates the Regional Bikeway System with existing local bikeway plans that ties into a comprehensive bikeway system; coordinates the Fresno County Regional non-motorized transportation system with adjoining counties; and identifies barriers that inhibit safe and convenient non-motorized travel and develop a list of corrective measures to remove the barriers. The Plan contains Policy BP-A.5, which requires development projects adjacent to designated bikeways to provide adequate rights-of-way or easements.

Fresno Council of Governments Congestion Management Program

All urbanized areas with a population larger than 200,000 people are required to have a Congestion Management System, Program, or Process. The Fresno Council of Governments (COG) refers to its congestion management activities as the Congestion Management Program (CMP).

The CMP is a systematic process for managing congestion that provides information on: (1) transportation system performance, and (2) alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs.

The purpose of the CMP is to help ensure that a balanced transportation system is developed that relates population growth, traffic growth and land use decisions to transportation system level of service (LOS) performance standards and air quality improvement. The CMP is an effort to more directly link land use, air quality, transportation and the use of new advanced transportation technologies as an integral and complementary part of this region's plans and programs.

The purpose of defining the CMP network is to establish a system of roadways that will be monitored in relation to established LOS standards. At a minimum, all state highways (e.g., SR 269) and principal arterials must be designated as part of the Congestion Management System of Highways and Roadways.

Fresno Council of Governments Regional Transportation Plan

The latest Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) was prepared by the Fresno COG, and was adopted in June 2014. The RTP/SCS is a blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Fresno County. It was developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, state, and federal agencies. Fresno COG prepared the 2014 RTP/SCS to include the CMP, which is designed to ensure that a balanced transportation system is developed, relating population and traffic growth, land use decisions, performance standards and air quality improvements. Additionally, the RTP/SCS establishes a basis on which funding applications are evaluated. Use of any state or federal transportation funds by local governments must conform to the RTP/SCS, the State Implementation Plan (SIP) for air quality improvements, and the Federal Transportation Improvement Programs (FTIP) (Fresno COG, 2014).

2.3 CEQA Context - Significance Criteria

Although this is not a CEQA document, the following provides the CEQA impact analysis context. According to Appendix G of the CEQA Guidelines, a project would result in significant impact to Transportation/Traffic if it would:

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

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

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

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

e) Result in inadequate emergency access.

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

The Fresno County General Plan Transportation Element has established the following LOS standards, which apply to significance criteria “a” and “b”, above:

- The County shall plan and design its roadway system in a manner that strives to meet minimum LOS C on all roadways, except on urban roadways within the spheres of influence of the cities of Fresno and Clovis, where LOS D will be the minimum acceptable level of service.

CHAPTER 3
Impact Discussion

3.1 Approach to Analysis

Roadway operating conditions are judged with respect to Level of Service (LOS), which is a qualitative measurement of operational characteristics of traffic flow on a roadway, based on traffic volumes and road type. LOS is defined by six grades (from A to F), with LOS A representing the best (freely-flowing) traffic conditions, and LOS F representing the worst (substantially-congested) traffic conditions. **Table 1** provides the LOS characteristics for roadways.

TABLE 1
LEVEL OF SERVICE DESCRIPTIONS

Level of Service (LOS)	Traffic Flow Characteristics
A	Free-flow operations, Little, if any, delays.
B	Reasonably free-flow operations; ability to maneuver within the traffic stream is only slightly restricted. Minimal delays.
C	Travel speeds are at or near free-flow, but the ability to maneuver within the traffic stream is noticeably restricted. Acceptable delays.
D	Travel speeds begin to decline with increasing flows. The ability to maneuver within the traffic stream is more-noticeably limited, and minor incidents can be expected to create queuing. Queues dissipate rapidly, without excessive delays.
E	Operation is at or near capacity, and therefore is volatile because there are virtually no useable gaps in the traffic stream. Maneuverability is extremely limited. Any disruption to the traffic stream, such as vehicles entering from ramps or side streets, can cause disruptions. Substantial delays.
F	Breakdown in traffic flow, with queues forming behind major breakdown points, such as traffic incidents or recurring points of congestion. Delay may block upstream intersections.

SOURCE: Transportation Research Board, Highway Capacity Manual, 2000.

Roadway conditions were analyzed based on peak-hour traffic, volume-to-capacity (v/c) ratio, and LOS. The evaluation of traffic impacts from implementation of the Project was undertaken by assessing trip generation (workers and trucks) for both the construction and operational phases of the Project against existing traffic conditions.

3.2 Short-term (Construction) Impacts

The Blackbriar Battery Storage Facility is projected to begin construction in February 2019, and be completed in June 2019; construction of the Fifth Standard Solar Facility is anticipated to begin in April 2019, and be completed in December 2019; and construction of the Stonecrop Solar Facility is anticipated to begin in August 2019 and be completed in December 2019. The key period of time for potential traffic impacts would be when the above-described construction periods overlap.

The trip generation is based on the number of workers commuting to the site on a daily basis, as well as deliveries and haul away of materials and equipment. For purposes of this analysis, and to ensure that potential impacts are not underestimated, although carpooling will be encouraged, construction workers are assumed to commute in their own vehicle (i.e., no carpooling) and to arrive in the a.m. peak hour and leave during the p.m. peak hour each weekday. Heavy equipment would not be hauled to or from the Project site daily, but rather would be hauled in at the beginning of construction and hauled out upon completion of construction. Construction trips would occur throughout the day, but because the Project does not require intense grading/off-site hauling, the majority of the trips would be associated with construction workers traveling to and from the site and with daily deliveries (e.g., solar panels, various equipment, and materials). All other non-peak-hour activities (such as fuel deliveries) may occur sporadically and periodically throughout the construction duration, but they are not considered typical occurrences.

The specific equipment and material hauling route will be determined by the contractor. However, it is assumed construction materials and worker trips would originate from the major urban areas in the region and nearby communities. Based on the existing roadway network serving the project area, it is assumed trucks traveling to and from the construction site would be made on I-5 (using the Jayne Avenue interchange to/from Lassen Avenue), SR 198 (east of Lassen Avenue), and SR 269 (Lassen Avenue). Deliveries of solar panels from the Port of Stockton or Port of Long Beach would get to the project site via I-5 to Jayne Avenue to SR 269. Miscellaneous deliveries of equipment and materials would come from the City of Fresno area and would get to the project site via SR 41, SR 198 and SR 269. Assuming workers would be drawn from the City of Fresno area, it is anticipated work trips likewise would be made on SR 41, SR 198 and SR 269.

Project construction traffic would primarily include the delivery of construction equipment, vehicles and materials, and daily construction worker trips. A majority of the equipment (e.g., solar PV panels, inverters, tracker steel, transmission poles, substation circuit breakers, and substation steel) would be delivered to the site in standard widths and lengths by trucks, vans or covered flatbed trailers. Substation equipment, inverter enclosures, and cranes would be delivered to the Project site on wide-load trailers.

It is anticipated that during the anticipated 334 total days of construction the Project would result in an average of up to 600 daily one-way vendor and worker trips (ESA, 2016). At the peak of construction (when construction of two of the three facilities is underway) there could be up to 1,200 daily one-way trips. The existing traffic volumes along roadways in the vicinity of the

project site (i.e., Lassen Avenue, Jayne Avenue, and Dorris Avenue) range from 2,000 to 3,500 vehicles per day (Caltrans, 2016b; Fresno Council of Governments, 2013). Existing peak-hour volumes are about 10 percent of the daily volumes (i.e., about 200 to 350 vehicles per hour).

For purposes of determining the peak-hour LOS of area roads, a capacity of 1,600 vehicles per hour per lane (i.e., 3,200 two-way vehicles per hour on two-lane roads) is assumed. The above-cited peak-hour volumes (converting to passenger car equivalent vehicles[1]) represent approximately 7 to 14 percent of the roadway capacity (v/c ratio of 0.07-0.14), which is considered LOS A.[2] Although Project trips would be dispersed over different roads as construction workers and trucks travel to and from the Project site, the analysis of potential Project traffic impacts was conducted on SR 269 because all Project-generated trips would travel on SR 269. Also, the addition of peak-hour construction vehicles (i.e., up to approximately 440 PCE) would increase the v/c ratio to approximately 0.21-0.28, which is considered LOS A. Traffic impacts associated with Project construction would be less than significant.

Although construction activities associated with the Project would be temporary in nature and the maximum traffic levels discussed above would be short-term, with less–than-significant effects on traffic conditions on area roadways, it is recommended that a Construction Traffic Control and Management Plan (see Chapter 4 of this report) be prepared to ensure those less-than-significant impacts, and to comply with encroachment permit and other requirements to manage construction traffic that jurisdictions (e.g., Fresno County and Caltrans) could require.

Air Traffic: The nearest public airport to the Project site is the Mendota Airport, which is located approximately 44 miles to the north of the Project site. The privately-owned Harris Ranch Airport is approximately 10 miles northwest of the site. The Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Traffic Hazards: Construction of the Project would require the delivery of heavy construction equipment and facility materials, some of which may require transport by oversize vehicles. The use of oversize vehicles during construction can create a hazard to the public by limiting motorist views on roadways and by the obstruction of space. Construction-related oversize vehicle loads must comply with permit-related and other requirements of the California Vehicle Code and California Streets and Highway Code. California Highway Patrol escorts may be required at the discretion of Caltrans and Fresno County, and would be detailed in respective oversize load permits. Due to the rural nature of the area roads and flat terrain, construction vehicles are not anticipated to incur hazards traveling to and from the Project site. Furthermore, the Project would not include a design feature or utilize vehicles with incompatible uses that would create a hazard on the roadways surrounding the Project site.

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1 Passenger Car Equivalent (PCE) accounts for differences between trucks and passenger vehicles (i.e., trucks utilize more roadway capacity than passenger vehicles due to their larger size, slower start-up times, and reduced maneuverability). In order to account for those differences, a PCE factor of 2.0, based on *Highway Capacity Manual* adjustments for heavy vehicles (TRB, 2000), was used.

2 It is noted that Caltrans, in their Transportation Concept Reports, describe SR 269 and SR 198 as operating at an acceptable LOS C or better (Caltrans, 2012a, 2016a).

Access to the Project site would be provided from multiple points along Lassen Avenue (SR 269) on the eastern side of the site. Design and construction of Project access road intersections with SR 269 would be required to conform with Fresno County standards (per General Plan Policies TR-A.3, TR-A.5, and TR-A.8) and with the Caltrans Highway Design Manual (Caltrans, 2012b). Among the applicable requirements is corner sight distance at the SR 269 access intersections (though the flat terrain is assumed to not make sight distance an issue of concern). Impacts associated with hazards resulting from a project design feature would be less than significant.

Emergency Vehicle Access: The Project would be located in a rural area with multiple access roads allowing adequate egress/ingress to the Power Blocks in the event of an emergency. Additionally, as part of the Project, internal access roadway improvements would occur. Therefore, the Project would allow for adequate emergency access.

As described above, increased Project-related traffic would not cause a significant increase in congestion and would not significantly affect the existing LOS on area roads. Furthermore, the Project would not require closures of public roads, which could inhibit access by emergency vehicles. During construction of the Project, heavy construction-related vehicles could interfere with emergency response to the site or emergency evacuation procedures in the event of an emergency (e.g., slowing vehicles traveling behind the truck). However, given that there are no businesses, limited residences, and no emergency response stations in the immediate vicinity of the Project site, it is not considered likely that heavy construction-related traffic would result in inadequate emergency access.

Alternative Transportation: Fresno County's General Plan includes policies regarding access and safety standards of roadway facilities, bike facilities, and public transit. Although the General Plan seeks to coordinate multiple forms of transportation, including cars, commercial vehicles, buses, transit, bicycles, and pedestrian traffic, the General Plan does not contain specific policies governing pedestrian traffic. Fresno County also has adopted a Regional Bicycle and Recreational Trails Master Plan (Fresno County, 2013) that addresses non-motorized transportation systems and identifies barriers to trails and bikeways.

The Project would neither directly nor indirectly eliminate existing or planned alternative transportation corridors or facilities (e.g., bike lanes), including changes in polices or programs that support alternative transportation, nor introduce a barrier to non-motorized travel. Therefore, the Project would not conflict with adopted polices, plans and programs supporting alternative transportation. As described above, construction activities associated with the Project would not generate traffic volume increases that would significantly affect traffic flow on area roadways. The performance of public transit, bicycle and pedestrian facilities in the area likewise would not be adversely affected, and the Project impact would be less than significant.

3.3 Long-term (Operation & Maintenance) Impacts

The Project would introduce additional traffic volumes to local roadways, particularly along Lassen Avenue. The full-time staff for the Project would consist of one site manager, four technicians, and six security personnel (expected to be from Fresno and the surrounding communities). Additional support personnel would be employed as needed. Occasionally, up to four full-time equivalent workers would be present at the Project site to undertake panel washing. This would occur mainly during the summer months if winter rainfall were sufficient to wash the panels clean such that only a single cleaning would be required during the summer. If a winter is dry or soiling is greater than expected, more washing may be necessary.

Because operation and maintenance (O&M) activities would not generate a substantial number of trips that would have any significant effect on LOS, and would be lower than the trips generated during Project construction, traffic impacts associated with O&M would be less than significant.

CHAPTER 4
Potential Traffic Impact Reduction Measures

Implementation of the following measures would reduce short-term (construction-related) traffic impacts associated with implementation of the proposed project.

Mitigation Measure TRAFFIC-1: Prior to the issuance of construction or building permits, the Solar Facility sponsor and/or its construction contractor would:

- Prepare and submit a Construction Traffic Control and Management Plan to Fresno County Divisions of Public Works and Planning and the California Department of Transportation (Caltrans) District 6 office for approval. The Construction Traffic Control and Management Plan must be prepared in accordance with current Caltrans standard plans, and both the California Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook, and must include, but not be limited to, the following elements:

  - Timing of deliveries of heavy equipment and building materials;
  - Directing construction traffic with a flagger;
  - Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
  - Ensuring access for emergency vehicles to the project site;
  - Maintaining access to adjacent property;
  - Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hours, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.

- Obtain all necessary permits for the work within the road right-of-way or use of oversized/overweight vehicles that would utilize county-maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits would be submitted to the Fresno County Divisions of Public Works and Planning.

- Prior to the start of construction, enter into a secured agreement with Fresno County to ensure that any county roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the state and/or Fresno County.

  - Any work for the proposed intersection improvements on Lassen Avenue at the site access driveways first would require that plans for the improvements

be submitted to Fresno County and Caltrans District 6 for review and approval prior to issuance of any encroachment or road improvement permit for the work.

  - The improvements for the new access roads would include a requirement that they be paved with asphalt concrete surfacing for a minimum distance of 100 feet from the edge of the state highway right-of-way to help ensure that no sediment track-out is carried onto the state highway from construction activities. The paved width of this access road would be a minimum of 24 feet. Any material that is deposited onto the state-maintained roadway would be swept clean as soon as possible and at least prior to the end of each working day.

  - Maintenance of the new access roads would be the sole responsibility of the Applicant.

  - The scope of any necessary repair work would be mutually agreed upon by the Applicant and Fresno County prior to performance of the repair work.

  - Obtainment of any access easements from private property owners necessary to perform required repair work would be the sole responsibility of the Applicant.

- Submit documentation that identifies the public roads to be used during construction. The project operator would be responsible for repairing any damage to non-county-maintained roads that may result from construction activities. The project operator would submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Fresno County Divisions of Public Works and Planning.

- Subsequent to completion of construction, submit a post-construction video log and inspection report to the County. This information would be submitted in DVD format. The County, in consultation with the project operator's engineer, would determine the extent of remediation required, if any.

CHAPTER 5
References

California Department of Transportation (Caltrans), 2012a. Office of System Planning, District 6, *State Route 269 Transportation Concept Report*, August 2012.

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Stantec

Memo

To:	Chrissy Monfette Fresno County Department of Public Works and Planning Development Services Division 2220 Tulare Street, 6th Floor Fresno, CA 93721	From:	Elena Nuño Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno CA 93711-5862
File:	Technical Report Memorandum	Date:	September 13, 2019

Reference: Evaluation of Fifth Standard Solar Project Complex Project Description Modification to Blackbriar Battery Storage Facility

Project Description Modification

Stantec Consulting Services Inc. (Stantec) is submitting this memorandum (memo) to Fresno County (the County) to verify the adequacy of the technical reports provided by the Applicant for the Fifth Standard Solar Project Complex (Project). Stantec understands that the applicant has made minor changes to the project description that would increase the size of the proposed battery storage component from 20 MW to up to 100 MW as described below:

> UCUP 3564 Blackbriar Battery Storage Facility: an up to 100-MW battery storage facility that would be located adjacent to the Fifth Standard Solar Facility and the Stonecrop Solar Facility and would require less than 5 acres of the site.

At the time the technical studies were prepared, the Blackbriar Battery Storage Facility was proposed to include 20 MW of storage capacity; therefore, the technical studies reflect this accordingly. The proposed increase in storage capacity to 100 MW would be contained within the same project footprint and would not change the assumed construction schedule. Therefore, changes to the impacts and mitigation disclosed in the original technical studies are not anticipated. Accordingly, this memo summarizes and confirms that the original technical studies remain valid.

Technical Studies

Land Evaluation Site Assessment

The proposed project would result in the conversion of approximately 1,600 acres of Prime Farmland to non-agricultural use. The California Land Evaluation Site Assessment (LESA) evaluated the potential impact of the agricultural conversion based on soil resource quality, size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Mitigation Measure AG-1 would require preparation of and implementation of Reclamation Plan to ensure that site restoration to agricultural uses is successful.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint. As a result, the total number of converted acres of Prime Farmland would not change. Therefore, the conclusion of the LESA would remain valid and no additional analysis is required.

Air Quality and Greenhouse Gas Evaluation Technical Report

The proposed project would result in both short- and long-term emissions of criteria air pollutants and greenhouse gas (GHG) emissions. The primary source of criteria pollutant emissions and GHG emissions

generated by the proposed project would be associated with construction and decommissioning activities. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles and fugitive dust as a result of grading, equipment, and vehicle travel on unpaved surfaces. Onsite emissions associated with project operation would be generated as a result of maintenance and periodic PV panel-washing activities. Mitigation Measures AIR-1 and 2 would require implementation of best management practices and reduction of emissions during construction. Mitigation Measures GHG-1 and 2 would implement measures to reduce GHG through ride sharing, waste recycling, and construction methods.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the proposed project would not result in new emissions or impacts that weren't already disclosed. Therefore, the conclusion and mitigation of the Air Quality and Greenhouse Gas Evaluation Technical Report would remain valid and no additional analysis is required.

Biological Resources Technical Report

The proposed project would result in potential impacts on nesting birds by crushing and destruction of nests and eggs through clearing and grading activities. The proposed project would also introduce collision hazards to the site due to the installation of a new 0.3-mile aboveground powerline to connect the proposed project to the point of interconnect. Such facilities can result in injury or mortality to raptors due to collision and electrocution. The proposed project also has the potential to attract bats or disrupt nocturnal species with nighttime lighting. Mitigation Measures BIO-1 through 5 would reduce potential impacts to such biological resources through visual deterrents and preconstruction surveys.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not add addition collision hazards or present new crushing or destruction impacts during construction activities. No new land would be impacted and the construction windows would not change. Therefore, the Biological Resources Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Cultural Resources Survey Report

The proposed project would result in potential impacts to known and unknown cultural resources if encountered during construction and operation. Mitigation Measures CUL-1 through 3 would require cultural resources awareness training of construction personnel and would implement steps should inadvertent discovery of cultural resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts cultural resources that have not already been disclosed in the Cultural Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Cultural Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Paleontological Resources Survey Report

The surficial sediments of the project site identified as Qa are too young to preserve fossils and therefore have low paleontological sensitivity. However, the subsurface sediments (possibly older Qa or Tulare

Formation) located at a depth of 10 feet or more do have high paleontological sensitivity. Mitigation Measures GEO-1 through 3 would require pre-construction awareness training and would implement steps should inadvertent discovery of paleontological resources be found.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, the project description modification would not result in new potential impacts that have not already been disclosed in the Paleontological Resources Survey Report, nor would it result in new footprint that has not yet been surveyed. Therefore, the Paleontological Resources Survey Report conclusions and mitigation would remain valid and no additional analysis is required.

Phase I Environmental Site Assessment

The Phase I conducted for the proposed project concluded that that the project site is not included on a list of hazardous materials sites pursuant to GC Section 65962.5. The Phase I identified six listed nearby listings but determined that none of the parcels constitute a REC to the project site. The Phase I identified surface soil staining at six of the seven ASTs and at two trailer-mounted diesel-powered agricultural irrigation pumps on the project site.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. As a result, no additional areas would need to be considered in the Phase I. The RECs identified in the Phase I would not change; therefore, the project description modification would not result in new potential impacts that have not already been disclosed. Therefore, the Phase I conclusions would remain valid and no additional analysis is required.

Noise Technical Report

Short-term noise and vibration would be generated by the proposed project as a result of onsite construction activities and traffic associated with equipment and materials delivery and worker commute trips. Most land uses surrounding the project site are agricultural. The nearest sensitive land uses to the project site are single-family residences, located approximately 1,100 feet to the east and 2,500 feet and 2,900 feet to the north of the project site. PV solar facilities generally do not create much noise or vibration during the operational phase. Sources of noise include operation of the potential tracking motors that are used to rotate the panels to follow the sun, operation of the inverter/transformers, and noise generated by electricity discharge from the gen-tie lines, referred to as the corona effect. Mitigation Measures NOI-1 through 4 would reduce potential noise impacts during construction and decommissioning.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. Therefore, the potential noise and vibration impacts associated with construction, operation, and decommissioning would not change and there would be no new sensitive receptors. Therefore, the Noise Technical Report conclusions and mitigation would remain valid and no additional analysis is required.

Traffic Study Report

The Traffic Study Report determined that the majority of the traffic impacts would occur during the construction period, particularly where the construction periods overlap. However, traffic impacts related to construction and decommissioning were considered to be less than significant. Operation and maintenance would only require eleven daily round trips to the road network, with additional support personnel employed

Reference: Evaluation of Fifth Standard Solar Project Complex

as needed, and would not generate a substantial number of trips. Mitigation Measure TRA-1 would implement a construction and decommissioning traffic control and management plan that would reduce potential impacts.

The project description modification would not require an expansion of the Blackbriar Battery Storage Facility footprint nor would it change the project construction duration. The project would anticipate the same number of personnel during each stage of construction. As a result, the traffic impacts associated with construction, operation, and decommissioning would not change. Therefore, the Traffic Study Report conclusions and mitigation would remain valid and no additional analysis is required.

Regards,

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