Initial Study/Mitigated Negative Declaration

Juniper Creek Energy Storage Project

FEBRUARY 2023

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BESS	Battery Energy Storage System
BMP	Best Management Practice
CBC	California Building Code
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fir Code
CMU	Commercial Mixed-Use
DOC	California Department of Conservation
EIR	Environmental Impact Report
ESA	Environmental Assessment Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
GHG	Greenhouse Gas
HMP	Hazard Mitigation Plan
LC	Limited Commercial
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MRZ	Mineral Resource Zone
MW	megawatt
MWh	megawatt-hour
NAHC	Native American Heritage Commission
RCPD	Rancho Cordova Police Department
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Government
SMAQMD	Sacramento Air Quality Management District
SMUD	Sacramento Municipal Utility District
SRSP	Sunridge Specific Plan
SSHCP	South Sacramento Habitat Conservation Plan
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
TCR	tribal cultural resource
USCB	United States Census Bureau
VHFHSZ	Very High Fire Hazard Severity Zones

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1 Introduction

1.1 Project Overview

The Juniper Creek Energy Storage Project (Project) is a 200-megawatt (MW) Battery Energy Storage System (BESS) project located in the City of Rancho Cordova (City), California, being developed by Vesper Energy, LLC. The Project's batteries will be installed in racks, inverters, medium-voltage (MV) transformers, a collector substation, and other associated equipment to interconnect with the existing and adjacent Sacramento Municipal Utility District (SMUD) Cordova Substation.

The Project will be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures. It is anticipated that two to four staff members would visit the site weekly or on as needed basis for maintenance and monitoring. The Project site will be fully enclosed and will not be open to the public.

The Project site is located at the southwest corner of the intersection of Poopenaut Court and Canyonlands Drive, north of the existing SMUD Cordova Substation. The Project site encompasses approximately six acres of vacant, undeveloped land designated as Commercial and Offices in the City's General Plan, Commercial Mixed-Use (CMU) in the Sunridge Specific Plan (SRSP), and zoned Limited Commercial (LC). The Project is surrounded on the north and west residential and open space uses, including the Sunridge Park Village Residential Community and Sunridge Park. Undeveloped vacant land borders the Project site to the east. The existing SMUD Cordova Substation is located south of the Project site.

The Project will operate by directly connecting to the local electrical grid, and release energy produced during low demand times during higher demand times. Battery storage is not needed to store energy from conventional fuel sources such as natural gas because natural gas is a combustible fuel that can produce energy on demand without requiring another form of storage. Therefore, battery storage is used to facilitate integration of renewable energy sources into the electrical grid.

The Project will provide essential regional and local grid reliability, help to meet California's zero carbon future (California Executive Order B-55-18) by complimenting renewable energy generation, and help to reduce the likelihood of local outages. Recent heat waves and fires in the State of California have exposed the State's shortage of resilient and reliable energy services. The State has identified a need of an additional 7,000 MW of energy services through a combination of renewable energy generation and energy storage by 2025. Battery storage is requisite to meeting the State's energy needs by providing an economic, clean, and "green" replacement to gas-fired power plants that that generally run when there is a high demand for electricity.

In addition, battery storage provides essential grid resiliency for the local network. The Project will help to reinforce the local electrical grid, preventing potential power outages related to wild-fire and high wind that would impact the City of Rancho Cordova and the surrounding region. With the rising cost of electricity, battery storage will help to offset cost increases by storing energy when demands are low and delivering energy to the grid when demand and prices are high.

1.2 California Environmental Quality Act Compliance

Approval by the City of Rancho Cordova to award a construction contract to build the Project constitutes a discretionary action that triggers environmental review requirements pursuant to the California Environmental Quality Act (CEQA), with the City serving as lead agency under CEQA. The City prepared a CEQA Initial Study (IS) to analyze and consider the environmental impacts of implementing the project, which is presented herein. Based on the results of the IS, the City has made the determination that a Mitigated Negative Declaration (MND) is the appropriate environmental document for compliance with CEQA (California Public Resources Code, Section 21000 et seq.). As stated in CEQA Section 21064, an MND may be prepared for a project subject to CEQA when an IS has identified no potentially significant effects on the environment when mitigation is identified that can reduce impacts to less than significant levels.

This Initial Study/Mitigated Negative Declaration has been prepared by the City of Rancho Cordova as lead agency in conformance with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of this Initial Study is to disclose to the public and project decision-makers any potentially significant impacts associated with the Project, and to identify mitigation measures that will be incorporated into the project design, as necessary, to reduce or eliminate potentially significant impacts of the Project.

1.3 Project Planning Setting

The City of Rancho Cordova (City) is located in the eastern portion of Sacramento County (County) Major transportation routes through the City include U.S. Route 50 and Interstate (I-) 16. The Project is adjacent to existing residential and open space land uses, as well as the SMUD Cordova Substation to the south of the site. The Project is located within Township 8N, Range 7E, Sections 9, 10, 15, 16, of the Buffalo Creek 7/5-Minute quadrangle.

1.4 Public Review Process

In accordance with CEQA, a good faith effort has been made during the preparation of this IS/MND to contact affected agencies, organizations, and persons who may have an interest in this project.

In reviewing the MND, affected public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the project's possible impacts on the environment. A copy of the draft IS/MND and related documents are available for review at the City of Rancho Cordova City Hall (see following address) between the hours 8:00 a.m. and 5:00 p.m., Monday through Friday. The document is also available on the City's website:

(https://www.cityofranchocordova.org/departments/community-development/planning/planning-division-document-library).

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670

Comments on the IS/MND may be made in writing before the end of the public review period. A 30-day review and comment period from February 3, 2023, to March 6, 2023 has been established in accordance with Section

15072(a) of the CEQA Guidelines. Following the close of the public comment period, the City will consider this IS/MND and comments thereto in determining whether to approve the proposed project.

Written comments on the IS/MND should be sent to the following address by 5:00 p.m., March 6, 2023.

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
Contact: Darcy Goulart
Telephone: (916) 851-8784

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2 Project Description

2.1 Project Location

The Project consists of a single parcel, APN 067-0780-011-0000, which includes approximately six acres within the incorporated city of Rancho Cordova, California (Figure 1, Project Location).

The Project site is currently undeveloped and is located near the Sunridge Park Village residential community and the SMUD Cordova Substation. The remainder of the surrounding area to the northeast, east, and southeast is vacant undeveloped land (Figure 2, Project Site).

Existing overhead high-voltage transmission lines connecting to the SMUD Cordova Substation are located to the north and northeast of the Project site. Canyonlands Drive, a two-lane paved road that provides access to the SMUD Cordova Substation is located north and northeast of the Project site.

2.2 Environmental Setting

The Project site is located on a single parcel within the Sunridge Specific Plan, which was completed in July 2002 and encompasses 2,606 acres. APN 067-0780-011 is designated as Limited Commercial within the Sunridge Specific Plan.

The Sunridge Specific Plan was adopted by Sacramento County prior to City of Rancho Cordova incorporation in July 2003. The Specific Plan references the Sacramento County Zoning Code. Per conversations with City staff, a zone text amendment is being requested to allow for battery energy storage facilities within the Limited Commercial zoning designation. The proposed zone text amendment is anticipated to update section 23.907.030 "Utility facilities and infrastructure" and related sections of the City's Municipal Code to allow for the installation, operation, and decommissioning of energy storage systems. Upon approval of the proposed zone text amendment, the Limited Commercial zoning designation would include Battery Energy Storage Systems facilities.

2.3 Project Characteristics

The Project will house modular battery units within enclosures. Power released or captured by the Project will be transferred to and from the existing SMUD Cordova Substation via a loop-in generation transmission (gen-tie) line. The project will consist of lithium-ion or lithium iron phosphate (LFP) batteries, which will be installed in racks; inverters; MV transformers; a collector substation; and other associated equipment. The Project will include the following components, which are described in more detail following the bulleted list and shown in Figure 3, Site Plan:

- **Energy Storage Facility:** Energy storage enclosures and appurtenances will be constructed that will provide energy storage capacity and dispatch for the electric grid.
- **Power Inverters and Transformers:** Power inverters to convert between AC and DC will be included, along with transformers that will step up the voltage.
- **Collector Substation:** The Project collector substation will step the electricity from the inverter-transformer up to the kilovolt (kV) level of the transmission system, delivering it into the grid via a generation tie-line.

- **Telecommunication Facilities:** Telecommunication equipment, including underground and overhead fiber optics, cellular and/or radio communications equipment and supervisory control and data acquisition (SCADA), will be installed.
- **Site Access and Security:** On-site access driveways, perimeter security fencing, and nighttime directional lighting will be provided for the Project.
- **Gen-Tie Line:** A generation tie-line and fiber optic cables will be constructed from the collector substation to a position designated by SMUD within the existing Cordova Substation, located immediately adjacent to the Project site.
- **Other Site Design Features:** The Project will include other design features to ensure safety and efficient as well as compliance with all building, fire, health, and safety regulations, including setbacks, fire-operations access roads, fences/walls, drainage infrastructure, separation between equipment, and other features.

Battery Energy Storage System Enclosures

Batteries will be housed in containers or purpose-built enclosures. The proposed enclosure will be designed and installed in conformance with the California Fire Code and nationally recognized National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems, along with all applicable local fire protection requirements. The BESS will be unstaffed, with remote operational control and periodic inspections and maintenance performed as necessary.

Each individual module is monitored and controlled to ensure safe and efficient operations, and every BESS enclosure will be equipped with integrated operational management systems, fire, and safety systems, such as heating, ventilation, and air conditioning (HVAC) systems, ventilation, gas, heat, and smoke detection and alarms, and fire suppression system. In some instances, two enclosures may be stacked to a combined height of approximately 20 feet. The systems will be designed, constructed, and operated pursuant to the 2019 California Fire Code.

A typical BESS enclosure is approximately 50 feet long by 10 feet wide by 15 feet high, however, the number, size, layout, and capabilities of each enclosure will vary depending on the battery, enclosure and BESS system manufacturer selected for the Project.

Batteries and Racks

The lithium-ion or LFP batteries will be housed in racks similar to common computer server racks. The racks are typically made of aluminum, but sometimes may be composed of steel. The lithium-ion or LFP technology is considered one of the safest, best understood, and most efficient methods of energy storage on the market. The proposed facility will use a lithium-ion or LFP technology that has a long lifespan and boasts superior safety and stability characteristics. The battery racks will be designed and installed in accordance with the local seismic design requirements.

Fire Protection System

The proposed Project will use battery storage systems that are NFPA 855 Code compliant and UL certified and that include built-in failsafe and cooling systems designed to prevent thermal runaway and the spread of fire.

Under normal operations, BESS facilities do not contain, store or generate hazardous materials in quantities that would represent a risk to off-site receptors. In addition, the Project's preventative measures and fire and safety

systems, as described below, make an accident condition very rare. Nevertheless, because lithium-ion or LFP BESS facilities do store energy, a battery thermal runaway can occur if a cell, or area within a cell, reaches elevated temperatures due to thermal failure, mechanical failure or internal/external short circuiting.

All stationary battery storage facilities in California are required to comply with Chapter 12 (Energy Systems) and particularly Section 1206 (Electrical Energy Storage Systems) of the California Fire Code, which has adopted internationally and federally accepted National Fire Protection Association (NFPA) 855 standards for the design, construction, installation, commissioning, operation and maintenance of stationary energy storage systems. In addition to compliance with the 2019 California Fire Code, the Project will also comply with all other local, state, and federal safety standards and regulations, including those of the Sacramento County Fire Department.

Pursuant to the 2019 California Fire Code, all battery manufacturers must prove that a failed battery cell inside and enclosure will not cause a fire outside the system. The Project must meet the industry standards for adequate separations, cascading protections, and suppression systems to limit failure to a single battery cell. All BESS must use an Energy Management System for 24/7 monitoring, management, and balancing of cell voltages, currents and temperatures in order to ensure every cell remains within its safe operating parameters. The system must transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. This system is capable of controlling and isolating individual cells from the rest of the system both remotely and manually.

The Project will utilize pre-engineered battery storage systems equipped with integrated operational management systems, fire, and safety systems, such as HVAC, ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems. The 2019 California Fire Code contains safety standards for the system's construction (e.g., frame and enclosure, including mounting, supporting materials, barriers and more); the insulation, wiring, switches, transformers, spacing and grounding; safety standards for performance, such as tests for temperature, volatility, impact, overload of switches, and an impact drop test; and standards for manufacturing, ratings, markings, and instruction manuals. In addition to the many individual standards referenced, a Failure Mode and Effects Analysis (FMEA) must be performed for each system and requires a test to ensure safe compatibility of the system's parts.

Generation Transmission Line

A loop-in gen-tie line will be constructed that will transfer power to and from the proposed Project and the existing SMUD Cordova Substation.

Outdoor Electrical Equipment

MV transformers and additional electrical equipment will be installed including inverters, which may be installed interior to the BESS enclosures, combined with the MV transformers, or as standalone units, depending on the manufacturer. The collector substation will be located within the Project site. Components will include a main power transformer, control house, and switchgear. Underground wires and cabling will run from the battery cable collection box (inside the enclosure) to the inverter and transformer. From the MV transformer, cabling will be run to the collector substation. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association (NEMA) rated enclosures and screened from view, to the extent possible, on all sides. All outside electrical cabling on the site will be run underground or in ducting.

Telecommunication Facilities

The Project will also require telecommunication facilities to meet the communication requirements for interconnecting and communicating with the SMUD/CAISO facilities and to support remote project operations monitoring. To provide for communication with SMUD facilities, a fiber-optic cable will be used to connect the Project Collector Substation with the SMUD point of interconnection. Utility interconnection regulations require the installation of a second, separate, redundant fiber-optic cable. The redundant fiber-optic cable will also be installed within the Project footprint. Radio and/or cellular communication may also be utilized for specific site monitoring and maintenance needs.

The SCADA system is critical to the CAISO and SMUD utility interconnection and for the proper operation and maintenance of the project. The SCADA system uses proprietary software; a fiber-optic transmission system; a telephone, radio, and/or microwave communication network; and other means of communication such as radio links and phase loop communication systems. The SCADA system functions as a remote start, stop, reset, and tag out for the facility, thus minimizing the labor and site diagnostic information generated from the panels. The SCADA system will also control the collector substation, allowing for fully centralized operation of the project to meet all CAISO and utility interconnection requirements.

Site Access and Security

Access to the project site is anticipated to be provided via Canyonlands Drive, an existing public two-lane paved roadway and/or Poopenaut Court, an existing private paved roadway.

All fence installation requirements will be evaluated, and the best-fit scenario will be incorporated into the project design based on consultation with the City. Fences or solid walls will be installed around the perimeter of the project site for safety, security, and screening purposes. The fencing or walls will remain in place and maintained in good condition for the life of the Project.

Permanent motion-sensitive, directional security lights will be installed to provide adequate illumination around the collector substation area and points of ingress/egress. All lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties. Security cameras will be placed on site and monitored 7 days a week and 24 hours per day.

2.4 Project Construction and Phasing

Table 2-1 presents the construction phasing and anticipated equipment anticipated to be required to implement the Project, as assumed for purposes of environmental impact analysis. Project construction activities are anticipated to occur over an approximate 12-month period, with construction work hours Monday through Saturday from 7:00 am to 7:00 pm. Any construction work performed outside the normal work schedule will be coordinated with the City of Rancho Cordova in accordance with Chapter 6.68 Noise Control of the City's municipal code. For safety and security purposes, the entire Project site (staging and grading areas) would be surrounded by a chain-link fence for the entire duration of Project construction.

Table 2-1. Construction Phasing and Equipment

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site preparation	20	2	0	Graders	1	10
				Rubber Tired Loaders	1	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
Grading	20	4	988	Graders	2	10
				Plate Compactors	2	10
				Rollers	2	10
				Rubber Tired Loaders	2	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
Substation installation	20	20	0	Aerial Lifts	2	10
				Air Compressors	1	10
				Bore/Drill Rigs	1	10
				Cranes	1	10
				Excavators	1	10
				Generator Sets	1	10
				Rollers	1	10
				Rough Terrain Forklifts	1	10
				Rubber Tired Dozers	2	10
				Skid Steer Loaders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Trenchers	2	10
Battery/Container installation	20	20	4	Air Compressors	2	10
				Cranes	1	10
				Excavators	1	10
				Generator Sets	1	10
				Plate Compactors	1	10
				Rollers	1	10
				Rough Terrain Forklifts	1	10

Table 2-1. Construction Phasing and Equipment

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
				Skid Steer Loaders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Trenchers	1	10

2.5 Project Approvals

The following approvals are required by the City of Rancho Cordova:

- Adoption of this IS/MND
- Issuance of a grading permit
- Approval of Zone Text Amendment
- Approval of a Conditional Use Permit

Permits and approvals by other public agencies include:

- State Water Resources Control Board - Water Pollution Control Plan

3 Initial Study Checklist

1. **Project title:**

   Juniper Creek Energy Storage System Project

2. **Lead agency name and address:**

   City of Rancho Cordova, Planning Department
   2729 Prospect Park Drive
   Rancho Cordova, CA 95670

3. **Contact person and phone number:**

   Keith Carwana, Dudek
   1102 R Street
   Sacramento, CA 94612

4. **Project location:**

   The Project site is located at the southeast corner of the intersection of Canyonlands Drive and Poopenaut Court. The Project site encompasses six acres of vacant undeveloped land.

5. **Project sponsor's name and address:**

   Sunridge Energy, LLC
   125 E John Carpenter Fwy, Suite 525
   Irving, Texas 75062

6. **General plan designation:**

   General Plan: Commercial and Offices

   Sunridge Specific Plan: Commercial Mixed-Use (CMU)

7. **Zoning:**

   Limited Commercial/Sunridge Specific Plan (LC)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   The Project would include the construction of an approximately 200-megawatt Battery Energy storage System within the City of Rancho Cordova. The proposed Juniper Creek Energy Storage Project (Project) would be composed of lithium-ion or lithium iron phosphate (LFP) batteries installed in racks, inverters, medium-voltage (MV) transformers, a collector substation, and other associated equipment to interconnect

with the existing and adjacent Sacramento Municipal Utility District (SMUD) Cordova Substation (point of interconnection).

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

The Project site is surrounded by residential land use to north and west, open space to the north, undeveloped vacant land to the east, and the existing Sacramento Municipal Utility District (SMUD) Cordova Substation to the south.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

City of Rancho Cordova – Conditional Use Permit

City of Rancho Cordova – Zone Text Amendment

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

A Cultural Resources Report has been prepared and is available for review.

Environmental Factors Potentially Affected

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

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Signature Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

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

Less-than-Significant Impact. Scenic vistas generally refer to views that are accessible from public vantage points, such as public roadways and parks. The Sunridge Specific Plan does not identify designated scenic resources within the Plan Area. The Project includes the construction of a BESS on six acres of undeveloped vacant land within the LC zoning designation. The Project would require a zone text amendment to allow for the development of the proposed BESS within the LC zoning designation. Upon approval of the requested zone text amendment, the Project would be consistent with the allowed uses within the LC zoning designation.

The Project site is located approximately 173 feet south of Sunridge Park; thus, the Project would be visible to park users. Although Project implementation would result in changes to the visual quality of the Project site, the site is located adjacent to the existing Sacramento Municipal Utility District (SMUD) Cordova Substation. As such, upon completion of construction views of the Project site would be similar to adjacent land uses. Additionally, the Project would include a 12-foot concrete wall and landscaping along the western boundary of the project site to reduce potential visual impacts. Therefore, impacts would be less than significant.

In addition, the proposed Project would be consistent with the zone text amendment as the amendment includes BESS as an allowed use within the LC zoning designation upon issuance of a conditional use permit.

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

No impact. According to the California State Scenic Highway Mapping System (Caltrans 2022), there are no officially designated or eligible state scenic highways near the Project site. The nearest designated state scenic highway is the State Route (SR-) 160 segment that runs from the Contra Costa county line to south of Interstate (I-) 12, located approximately 37miles southwest of the Project site (Caltrans 2022). Due to distance and intervening topography and development, the project site is not visible from this segment of SR-160. Therefore, no impacts associated with scenic resources within a state scenic highway would occur.

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

Less-than-Significant Impact. Per Public Resources Code Section 21071, an "urbanized area" is defined as "(a) An incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons. [or] (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." The project site is located in the incorporated City of Rancho Cordova, which has a population of 80,413 persons as of July 2021 (USCB 2021). The City is bound by unincorporated Sacramento County. As such, the Project site is located in a non-urbanized area.

Temporary visible elements associated with the project include construction equipment, staging activities, and temporary fencing to be included for safety and security purposes. Visual impacts resulting from construction activities would be temporary, ceasing upon completion of construction.

As discussed in response to Threshold 3.1(a) above, the Project site is not visible from any prominent public viewpoints as designated by the City. The Project site is currently undeveloped and vacant, and Project implementation would substantially alter existing views of the site. Views from the nearby residences of the Project would be obscured by a 12-foot concrete wall and landscaping, located along the western boundary of the Project site. Additionally, the Project site is located adjacent to the existing SMUD Cordova Substation which the Project would connect to with the proposed generation transmission line. Upon completion of construction, the visual character of the Project site would be similar to adjacent land uses. Impacts would be less than significant.

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

Less-than-Significant Impact. The Project would include the installation of motion-sensitive, directional security lighting. All lighting would be shielded, directed, and oriented to prevent light from shining onto adjacent properties and to minimize nighttime glow and light spillage. Thus, by controlling the use of lighting on the Project site and the use of shielding, light and glare resulting from the Project would not adversely affect daytime or nighttime views in the area, and impacts would be less than significant.

3.2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

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

No Impact. Based on farmland maps prepared by the California Department of Conservation, the Project site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is designated as "Grazing" (DOC 2022a). Therefore, no impacts associated with conversion of important Farmland would occur.

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

No Impact. According to the Williamson Act Map prepared by Sacramento County, the Project site is not located on any lands under an active Williamson Act contract (Sacramento County 2012). Therefore, implementation of the Project would not result in the cancellation of an active contract and no impacts related to a Williamson Act contract would occur. Additionally, the Project site is not zoned for agricultural use. Therefore, the Project would not result in impacts to agricultural-zoned areas. No impacts would occur.

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

No Impact. The Project site is zoned LC. According to the Sacramento County Online Map, the Project site is not located on or adjacent to forest land, timberland, or timberland zoned Timberland Production (Sacramento County 2022). Therefore, no impacts associated with forest land or timberland would occur.

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

No Impact. As discussed in response to Threshold 3.2 (c), the Project site is not located on or adjacent to forest land. As such, project implementation would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

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

No Impact. The Project site is zoned LC. As discussed in response to Threshold 3.2 (a) and (d), The Project site is not located on or adjacent to any parcels identified as Important Farmland or forest land. In addition, the Project would not involve changes to the existing environment that would result in the indirect conversion of Important Farmland or forest land located away from the project site. Therefore, no impacts associated with the conversion of Farmland or forest land would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

An Air Quality and Greenhouse Gas Emissions Study was prepared for the Project by Dudek and is included as Appendix A to this Initial Study. This section summarizes the result of the Air Quality and Greenhouse Gas Emissions Study. Full details regarding regulatory setting, methodology, and other information can be found in Appendix A.

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

Less-than-Significant Impact. The Project site is located within the Sacramento Metropolitan Air Quality Management District (SMAQMD), within the Sacramento Valley Air Basin (SVAB). The SMAQMD is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal O_3 standards. As such, the SMAQMD, along with the other air districts in the region, prepared the Sacramento *Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 SIP Revisions)*. The Ozone Attainment Plan addresses attainment of the federal 8-hour O_3 standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O_3 standards (Appendix A). These are the latest plans adopted by the SMAQMD and they incorporate land use assumptions and travel demand modeling provided by Sacramento Area Council of Governments (SACOG). The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with federal and state air quality standards. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of the air quality plan if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the air quality management plan.

The Project includes construction of a BESS and will not have employees. Therefore, the Project would not generate population growth, housing, or employment that was not accounted for in regional plans such as SACOG's MTP/SCS, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable air quality management plan would be less than significant.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SMAQMD develops and implements plans for future

attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction Emissions

Construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROG off-gassing) and off-site sources (i.e., on-road vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

CalEEMod Version 2020.4.0 was used to estimate emissions from construction of the Project. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of ROGs, NO_x, CO, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. As such, the Project would be required to comply with SMAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The CalEEMod default assumptions were used for estimating fugitive dust emissions from grading on site. Table 3.3-1 presents the estimated maximum daily construction emissions generated during construction of the Project.

Table 3.3-1. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2022	3.06	36.73	24.05	0.07	2.54	1.44
2023	5.02	50.08	44.27	0.09	2.73	2.29
Maximum	*5.02*	*50.08*	*44.27*	*0.09*	*2.73*	*2.29*
SMAQMD Threshold	*N/A*	*85*	*N/A*	*N/A*	*80*	*82*
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.
Emissions include compliance with SMAQMD Rules 403.
See Appendix A for complete results.

As shown in Table 3.3-2, the Project construction would not exceed SMAQMD's daily thresholds. Therefore, construction impacts associated with criteria air pollutant emissions would be less than significant.

Operational Emissions

Emissions from the operational phase of the Project were estimated using CalEEMod. Operational year 2023 was assumed following completion of construction. Table 3.3-2 presents the estimated emissions during operation.

Table 3.3-2. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	1.04	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.02	0.24	0.00	0.07	0.02
Off-road	0.35	3.82	1.83	0.01	0.15	0.15
Total	**1.41**	**3.84**	**2.07**	**0.01**	**0.22**	**0.17**
SMAQMD Threshold	*65*	*65*	*N/A*	*N/A*	*80*	*82*
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Appendix A for complete results. Totals may not sum precisely due to rounding.

As shown in Table 3.3-2, ROG, NO_x, PM_{10}, and $PM_{2.5}$ emissions would be below the SMAQMD threshold of significance. The Project would comply with BMP measures in its final design to reduce operational PM_{10} and $PM_{2.5}$ emissions including compliance with Title 24 of the California Code of Regulations. Because the Project would not exceed the SMAQMD thresholds during operation, the Project would result in a less than significant impact.

Health Impacts of Criteria Air Pollutants

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019). ROG and NO_x are precursors to O_3, for which the SVAB is designated as nonattainment with respect to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. However, because the Project would not exceed the SMAQMD thresholds for ROG or NO_x, the Project would not contribute to health effects associated with O_3.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM_{10} or $PM_{2.5}$, would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, and would not obstruct the SVAB from coming into attainment for these pollutants. Therefore, the Project is not anticipated to result in health effects associated with PM_{10} or $PM_{2.5}$.

Construction and operation of the Project would not result in exceedances of the SMAQMD significance thresholds for criteria pollutants, and potential health effects associated with criteria air pollutants would be less than significant.

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

Less-than-Significant Impact.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is

extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels affecting sensitive receptors. High CO concentrations are mostly associated with severely congested intersections operating at an unacceptable level of service (LOS). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Title 40 of the Code of Federal Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (Hot-Spot Analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CFR 93.123). Localized concentrations of CO from exhaust would be a concern on high-volume roadways where vertical and/or horizontal mixing is substantially limited, such as tunnels or below grade highways. There are no high-volume roadways in the Project's vicinity with limited mixing that would be affected by the project-generated traffic during construction. Project construction activities would last approximately 12 months and would not require a project-level construction hotspot analysis.

Mobile source impacts occur on two scales of motion. Project-related travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SVAB. Additionally, project-generated traffic would be added to the City's roadway system near the Project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SVAB is steadily decreasing.

Therefore, a quantitative CO hotspots analysis is not required. The construction-related traffic is not anticipated to create a CO hotspot as emissions would be dispersed rapidly through the entrainment of ambient air. During operation, the Project is expected to generate vehicle trips for maintenance personnel once a month and therefore no CO hotspots would be created.

As such, impacts to sensitive receptors with regard to potential CO hotspots resulting from the Project's contribution to cumulative traffic-related air quality impacts would be less than significant.

Toxic Air Contaminants

A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

TACs associated with Project construction include the emissions of diesel particulate from heavy construction equipment and trucks accessing the site. The Office of Environmental Health Hazard Assessment (OEHHA) has identified carcinogenic and chronic non-carcinogenic effects from long-term exposure, but has not identified health

effects due to short-term exposure to diesel exhaust. According to OEHHA, Health Risk Assessments (HRAs) should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the Project. Thus, the duration of the proposed construction activities would constitute only a small percentage of the total 30-year exposure period. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated by the Project would not result in concentrations causing significant health risks. The Project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the Project site, and impacts would be less than significant. Per CARB's air toxic control measure, heavy-duty diesel vehicles will be limited to idling for 5 minutes while onsite.

Additionally, the health risk public-notification thresholds adopted by the SMAQMD Board is ten excess cancer cases in a million for cancer risk and a hazard index of more than one for non-cancer risk. The Project would not emit TACs during normal operations and toxic contaminants are not anticipated to be present at the Project site. The Project would bring a crane onsite to move containers around once every few years. Accordingly, the Project is not anticipated to result in emissions that would exceed the SMAQMD Board-adopted health risk notification thresholds.

An HRA was performed to assess the impact of a battery cell malfunction, such as a runaway reaction or overcharge event, on sensitive receptors proximate to the Project site. This analysis evaluated the potential impacts of a thermal runaway event where there was an elevated temperature situation due to a runaway reaction with combustion. Although the entire proposed BESS would be composed of many modules, malfunction events are unlikely to occur and, if such an event does occur, it would likely occur only within a single battery cell or a limited number of battery cells. The analysis conservatively evaluated the thermal runaway event taking place in a single cell and a module. The results of the HRA are shown in Table 3.3-3.

Table 3.3-3. Health Risk Assessment Results

Toxic Air Contaminant	Prioritization Score	
	Cell	Module
Carbon monoxide	3.74E-04	4.72E-01
Hydrogen fluoride	3.72E-05	4.70E-02
Hydrochloric acid	1.56E-05	1.97E-02
Hydrogen cyanide	1.17E-04	1.47E-01
Methanol	2.72E-08	3.43E-05
Styrene	4.41E-09	5.57E-06
Toluene	7.78E-06	9.83E-03
Total	**5.51E-04**	**6.96E-01**
Significance Threshold	*1.0*	*1.0*
Exceeds Threshold?	**No**	**No**

Source: Appendix A.

As shown in Table 3.3-3, the results of the HRA show that a thermal runaway of a cell or module would be considered a low-priority risk and thus would result in a less than significant impact.

Naturally-Occurring Asbestos

According to the Special Report 192: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California, prepared by the Department of Conservation, the Project site is located within an area categorized as least likely to contain naturally-occurring asbestos (NOA) (Sacramento County 2006). The geology in the Project site is known to consist of sedimentary rocks, whose deposits are generally less likely to contain NOA due to the composition and lack of metamorphism. Faults and serpentinite outcroppings are not known to be in the Project area. Consequently, NOA is not anticipated to be present on the Project site.

Criteria Air Pollutants

Small projects with criteria pollutant emissions close to or below SMAQMD's adopted thresholds of significance may use the Minor Project Health Effect Screening Tool. Considering the Project would result in emissions lower than the SMAQMD's thresholds of significance, the Project would qualify for use of the Minor Project Health Effects Screening Tool.

As shown in Table 3.3-2, the Project would result in operational emissions below the SMAQMD thresholds of significance and, thus, the health impacts calculated for the Project using in the Minor Project Health Effects Screening Tool are highly conservative. The SMAQMD tool assumes the Project will emit over 482 times more $PM_{2.5}$ than it actually will (0.17 lb/day vs. the threshold of 82 lb/day), over 46 times more ROG (1.41 lb/day vs the threshold of 65 lb/day), and nearly 17 times more NO_X (3.84 lb/day vs the threshold of 65 lb/day). Results from the Minor Project Health Effects Screening Tool are shown in Table 3.3-4 below. The Project could result in 1.6 premature deaths per year due to the project's $PM_{2.5}$ emissions and 0.03 premature deaths per year due to the project's ozone emissions.

Such numbers represent a very small increase over the background incidence of premature deaths due to $PM_{2.5}$ and ozone concentrations (0.0035 percent and 0.0001 percent, respectively). In addition, $PM_{2.5}$ emissions from the Project could result in 0.65 asthma-related emergency room visits, and ozone emissions from the Project could result in 0.52 asthma-related emergency room visits. Such numbers represent a minimal increase over the background level of asthma-related emergency room visits. Since the Project's emissions would be substantially below the SMAQMD thresholds of significance, the Project's actual health impacts associated with criteria pollutant emissions would be much lower than what is presented in Table 3.3-4.

Considering that implementation of the Project would not result in emissions of criteria pollutants that would exceed the SMAQMD standards, the Project would not inhibit attainment of regional NAAQS and CAAQS and would not result in adverse health impacts related to the emission of criteria pollutants.

Table 3.3-4. Health Effects from the Proposed Project

$PM_{2.5}$ Health Endpoint	Age Range[1]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)		
Emergency Room Visits, Asthma	0 - 99	0.65	0.0036%	18419

Table 3.3-4. Health Effects from the Proposed Project

$PM_{2.5}$ Health Endpoint	Age Range[1]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)		
Hospital Admissions, Asthma	0 - 64	0.043	0.0023%	1846
Hospital Admissions, All Respiratory	65 - 99	0.24	0.0012%	19644
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.13	0.00055%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.000052	0.0014%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0049	0.0016%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.013	0.0017%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.021	0.0017%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.084	0.0017%	5052
Mortality, All Cause	30 - 99	1.6	0.0035%	44766
Ozone Health Endpoint	**Age Range[1]**	**Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]**	**Percent of Background Health Incidences Across the 5-Air-District Region[3]**	**Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]**
		(Mean)		
Hospital Admissions, All Respiratory	65 - 99	0.049	0.00025%	19644
Emergency Room Visits, Asthma	0 - 17	0.19	0.0032%	5859
Emergency Room Visits, Asthma	18 - 99	0.33	0.0026%	12560
Mortality, Non-Accidental	0 - 99	0.033	0.00011%	30386

Source: Appendix A.

Notes: [1] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

[2] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.

[3] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.

[4] The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

The project would be relatively small compared to the regional growth and development that drives health impacts from criteria pollutants, and the anticipated air quality emissions would fall below all applicable

thresholds of significance; As such potential health impacts related to criteria air pollutants would be less than significant.

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

Less-than-Significant Impact. Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SMAQMD 2009). The Project would not create any new sources of odor during operation. Therefore, Project operations would result in an odor impact that would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

A Biological Resources Assessment was prepared for the project by Dudek and is included as Appendix B to this Initial Study. This section summarizes the result of the Biological Resources Assessment. Full details regarding regulatory setting, methodology, and other information can be found in Appendix B.

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

Less-Than-Significant Impact. The Project site is located adjacent to the Sacramento Valley Conservancy open space preserve and falls within the South Sacramento Habitat Conservation Plan (SSHCP) (Figure 4, SSHCP Modeled Land Covers). The SSHCP ensures preservation of species, natural communities, and aquatic resources in the Plan Area; while providing an improved environmental permitting process for "Covered Activity" projects that impact listed special-status species, listed species habitats, or aquatic resources (Appendix B). The Project is currently in the process of applying for coverage under the SSHCP. The Project falls within the Covered Activity Category "Covered Activities in Preserve Setback in the Urban Development Area (UDA)". Projects that fall within this category are required to implement a 50-foot-wide setback outward from the boundary of any existing Preserve or planned SSHCP Preserve. In addition, the SSHCP includes Avoidance and Minimization Measures (AMMs), to eliminate or reduce direct or indirect effects to special-status species that could result from implementation of a Covered Activity.

There are 19 special-status plant species and 24 special-status wildlife species that are known to occur within the surrounding area. Based on an evaluation of habitat type and conditions on the Project site, it was determined that 8 of these special-status plant species have a potential to occur within the Project site. During a reconnaissance-level biological field survey conducted for the Project, no special-status plants were observed within the Project site. Of the special-status wildlife species known to occur in the region, 13 species have a potential to occur within the Project site. The remaining 11 special-status wildlife species were removed from further consideration due to lack of suitable habitat within or adjacent to the Project

site. During the reconnaissance-level biological field survey, no special-status wildlife species were observed within the Project site.

Approximately 0.066-acres of vernal pool habitat is present along the eastern edge of the Project site. As required by the SSHCP, the Project would implement a minimum of a 50-foot-wide setback from the eastern boundary of the Project site. This 50-foot-wide setback would provide the required avoidance from direct impacts to vernal pool resources. In addition, project development would require regulatory compliance with California Endangered Species Act (CESA) and Federal Endangered Species Act (FESA), as well as with other related laws and regulations, through the SSHCP.

Therefore, with compliance with the SSHCP, and the implementation of the AMMs and the proposed setback from the vernal pool habitat, the Project would have a less than significant impact associated with special-status species.

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

Less-than-Significant Impact. The Project site supports two land cover types: Disturbed and Developed/Urban. The vegetation communities present within the Project site consists of Non-Native Grassland and Aquatic Environments. Three vernal pools totaling approximately 0.066 acres are present within the eastern boundary of the Project site. Vernal pools can provide habitat for rare and endangered species. As such, habitat modifications to the existing vernal pools could result in impacts to special-status plant and wildlife species. However, as discussed in response to Threshold 3.4 (a), the Project would include a 50-foot-wide setback to provide the required avoidance from direct impacts to the existing vernal pools, and compliance with the SSHCP. Impacts would be less than significant.

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

Less-than-Significant Impact. As discussed above, three vernal pools totaling approximately 0.066 acres are present within the Project site. Vernal pools are seasonal ephemeral wetlands that typically fill and dry each year (Appendix B). The Project would include a 50-foot-wide setback to provide the required avoidance form direct impacts to the existing vernal pools. As such, with the required avoidance measures, the Project would have a less than significant impact vernal pools.

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

Less-Than-Significant Impact. Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally and provide non-migrant wildlife the opportunity to move within their home range for food, cover, reproduction, and refuge. Given the existing vegetation within the Project site (i.e., dominant non-native grassland) and the adjacency to Sacramento Valley Conservancy open space preserve to the east and others in the surrounding vicinity, the Project site does provide wildlife corridor and habitat linkage value. However,

the Project site is bordered open space to the east that would continue to provide wildlife movement within the surrounding area. Impacts would be less than significant.

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

No Impact. The Project would comply with all applicable ordinances and permits. Vegetation communities within the project site consist of non-native grassland and aquatic environments. Project construction does not include the removal of trees. As such, no impact would occur.

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

Less-than-Significant Impact. The Project site is located within the SSHCP Plan Area, which ensures preservation of species, natural communities, and aquatic resources in the Plan Area; while providing an improved environmental permitting process for "Covered Activity" projects that impact listed special-status species, listed species habitats, or aquatic resources. Although the SSHCP does not expressly include utility-scale battery energy storage, urban solar energy projects and other energy-generating projects within the SSHCP UDA may be 'Covered Activities', provided they meet all SSHCP criteria. As such, with compliance with the SSHCP, the Project would not conflict with the provisions of an adopted conservation plan and impacts would be less than significant.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

A Cultural Resources Letter Report was prepared for the Project by Dudek and is included as Appendix C to this Initial Study. This section summarizes the result of the Cultural Resources Letter Report. Full details regarding regulatory setting, methodology, and other information can be found in Appendix C.

Records Search

A records search was completed for the Project site and a 0.5-mile radius search area by the North Central Information Center (NCIC) staff at the Sacramento State University on December 3, 2021. The records search

identified 22 previous studies that have been performed within the 0.5-mile search radius of the Project, one of which includes the entirety of the Project site. The search also identified one previously recorded cultural resource within the 0.5-mile radius search area. The resource consists of a historic industrial building that has been found ineligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) through survey evaluation. Refer to Appendix C for additional details.

Archival Search

In addition to the records search, Dudek consulted historic maps and aerial photographs of the Project site and surrounding area to help determine the possible development and land use of the Project area in the past. Historic aerial photographs were available from 1952 and 2018, and historic maps area available from 1909 to 2018 (Appendix C). Aerial images indicate the vicinity of the Project site was undeveloped agricultural land until the early 2000s. Initial development of the area is visible on the 2002 and 2005 aerial images, with the construction of a housing development and associated infrastructure to the west of the Project site. Between 2005 and 2009 additional infrastructure development occurred to the west and south of the Project site with extensive grading for a power substation and reservoir. By 2014 development appears as it does presently. Topographic mapping from 1968 depicts the power lines to the west of the Project site. No other built environment features are depicted on the available topographic maps of the area.

Native American Heritage Commission and Tribal Correspondence

Dudek requested a Native American Heritage Commission (NAHC) search of their Sacred Lands File (SLF) on December 1, 2021, for the Project site. On February 23, 2022, the NAHC responded that the result of the SLF check was negative. Follow-up communication and formal consultation with Native American tribes pursuant to Assembly Bill (AB) 52 will be completed by City staff.

The Project is subject to compliance with Assembly Bill 52 (PRC Section 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process and requires the CEQA lead agency to notify any groups (who have requested notification) of the Project who are traditionally or culturally affiliated with the geographic area of the Project. Because AB 52 is a government-to government process, all records of correspondence related to AB 52 notification and any subsequent consultation are on file with the City.

Intensive Pedestrian Survey

A Dudek archaeologist inspected all portions of the approximately six-acre Project site on December 16, 2021, using standard archaeological procedures and techniques that meet the Secretary of Interior's Standards and Guidelines for cultural resources inventory. The entirety of the proposed six-acre development area was covered with non-native annual grasses. Surface visibility was very low (less than 5%) due to dense grasses. Exposed ground surfaces were observed for surface artifacts, undisturbed areas, archaeological deposits, and historic structures. Evidence of artifacts and archaeological deposits were also opportunistically sought after in animal burrows and along an unpaved access road. No historic structures were observed. No archaeological resources were identified within the Project site during the field survey.

Geomorphology

Potential for yet identified cultural resources in the vicinity was reviewed against geologic and topographic GIS data for the area and information from other nearby projects. The "archaeological sensitivity," or potential to support the

presence of a buried prehistoric archaeological deposits, is generally interpreted based on geologic landform and environmental parameters (i.e., distance to water and landform slope).

The Project site is located within the Great Valley Geomorphic Province of California, a large basin comprised of the Sacramento and San Joaquin Valleys, bounded by the Serra Nevada and Coast Ranges to the east and west respectively. Specifically, the Project site is north of an unnamed tributary to Morrison Creek which feeds into the Sacramento River.

Soils within the site are entirely characterized as Redding gravelly loam soil series, which consists of loamy alluvium deposited on alluvial fan remnants. These soils are moderately well drained, and derived from igneous, metamorphic and sedimentary rock. Slopes within the Project site are between 0-2 percent. Based on review of this information the Project site would be moderately-well suited to support the formation or continued presence of buried cultural deposits or surface manifestations.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. A historical resource is one that meets the eligibility criteria for the California Register of Historical Resources. This includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]). The significance of an historic resource is impaired when a project demolishes or materially alters those physical characteristics that convey its significance.

As discussed in the Cultural Resources Letter Report, the only previously recorded cultural resource is a historic industrial building located within the 0.5-mile search radius. This resource has been found ineligible for the NRHP and CRHR. As such, implementation of the Project would not result in any adverse change in this resource. No impacts would occur.

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

Less-than-Significant Impact. No archaeological resources were observed within the Project site during the pedestrian survey. The NCIC records search did not identify the presence of archaeological resources within the Project site or the 0.5-mile search radius and the NAHC Sacred Lands File search was negative. As such, there is a low likelihood that construction ground disturbance would encounter cultural deposits. The Project would have no impact on known cultural resources.

In the unlikely event that construction encounters unanticipated archaeological resources, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted. Impacts would be less than significant.

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

Less-Than-Significant Impact. The Project site is not within a known cemetery or burial ground. In the highly unlikely event that human remains are uncovered during ground-disturbing activities, there are regulatory provisions to address the handling of human remains in California Health and Safety Code Section 7050.5, PRC Section 5097.98, and CEQA Guidelines Section 15064.5(e). Pursuant to these codes, in the event that human remains are discovered, disturbance of the site shall remain halted until the County coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The County coroner is required to make a determination within two working days of notification of the discovery of the human remains. If the County coroner determines that the remains are not subject to his or her authority, and if he or she recognizes or has reason to believe the human remains to be those of a Native American, he or she shall consult with the Native American Heritage Commission by telephone within 24 hours, to designate a Most Likely Descendant who shall recommend appropriate measures to the landowner regarding the treatment of the remains. If the owner does not accept the Most Likely Descendant's recommendations, the owner or the Most Likely Descendant may request mediation by the Native American Heritage Commission. Therefore, with compliance with this existing state law, impacts associated with human remains would be less than significant.

3.6 Energy

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

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

Less-than-Significant Impact. Most of the off-road construction equipment, such as those used during grading, would be gas or diesel powered. However, all operation of construction equipment would cease upon completion of Project construction. The construction contractors are required to minimize

nonessential idling of construction equipment during construction, in accordance with Section 2449 of 13 CCR Article 4.8, Chapter 9. Energy needs required for project construction would be temporary and are not anticipated to require additional capacity or increase peak or base period demands for electricity or other forms of energy. Construction equipment use and associated energy consumptions would be typical of that associated with the construction projects of this size. Thus, the Project's energy consumption during the construction would not be considered wasteful, inefficient, or unnecessary.

The Project would include the construction of the proposed BESS, which would store energy produced from renewable energy generation sources during low demand times for release during higher demand times. The purpose of the Project is to provide essential regional and local grid reliability, help to meet California's zero carbon future (California Executive Order B-55-18) by complimenting renewable energy generation, and help to reduce the likelihood of local outages.

The Project would require a zone text amendment to allow for the development of the proposed BESS within the LC zoning designation. Upon approval of the requested zone text amendment, the Project would be consistent with the allowed uses within the LC zoning designation which includes BESS facilities.

Overall, the Project would result in renewable energy generating sources to be more efficiently integrated into California's electricity grid. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy sources. Impacts would be less than significant.

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

Less-than-Significant Impact. California's electricity grid is transitioning to renewable energy under the Renewable Portfolio Standard (RPS). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The RPS goals have been updated since adoption with 50% by 2026, 60% by 2030, and 100% by 2045. SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44% renewable energy by 2024, 52% by 2027, and 60% by 2030. The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers whose compliance with RPS requirements would contribute to the state objective of transitioning to renewable energy. The Project would comply with the current and future iterations of the Title 24 Building Energy Efficiency Standards and their policies which contribute to reducing energy consumption through increasing energy efficiency, energy conservation, and use of renewable energy.

The Project includes the construction of a proposed BESS within the City, which would be part of a sustainable solution to enable renewable energy generating sources to be better used and more efficiently integrated into the grid. Battery storage is predominantly used to store energy produced from renewable energy generation sources during low demand times for release during higher demand times, for example, to store solar energy during the daytime and to release it during the evening when the demand for energy goes up but the ability to generate solar energy goes down because the sun has set. Battery storage is not needed to store energy from conventional fuel sources such as natural gas because natural gas is a combustible fuel that can produce energy on demand without requiring another form of storage. Therefore, battery storage is used to facilitate integration of renewable energy sources into the electrical grid. The Project would align with the State's energy goals. No conflicts with renewable energy or energy efficiency plans would occur and impacts would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

A Geotechnical Site Rating was prepared for the Project by Terracon Consultants, Inc. and is included as Appendix D to this Initial Study. This section summarizes the result of the Geotechnical Site Rating. Full details regarding regulatory setting, methodology, and other information can be found in Appendix D.

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

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

and

ii) Strong seismic ground shaking?

Less-than-Significant Impact. The Project site is not located in an Alquist-Priolo Fault Zone and no known faults intersect the Project area (DOC 2022b). The closest known fault zone is the Cordelia fault zone located approximately 54.3 miles west of the Project site. However, the Project site, like most of the surrounding region, could be subject to seismic activity along nearby faults that could result in ground shaking conditions.

The Project would contain no habitable structures or other structural development intended for human occupancy that could result in risk of loss, injury, or death in the event of strong seismic ground shaking. The Project would be required to comply with the building design standards of the California Building Code (CBC) Chapter 33 for construction of new buildings and/or structures related to seismicity and specific engineering design and construction measures would be implemented to anticipate and avoid potential impacts from seismic activity. As such, Project implementation would not create a potential risk to either people or structures in the event of strong seismic ground shaking. Therefore, impacts would be less than significant

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction occurs when a buildup of pore water pressure in the affected soil layer to a point where a total loss of shear strength may occur during a seismic event, causing the soil to behave as a liquid. The Project site is located not within a liquefaction zone, as mapped by the California DOC (DOC 2022b). Therefore, liquefaction is not considered to be a hazard on the proposed development, and the Project would not increase the risk from seismic-related ground failure, including liquefaction. No impact would occur.

iv) Landslides?

No Impact. Landslides typically occur on moderate to steep slopes that are affected by such physical factors as slope height, slope steepness, shear strength, and orientation of weak layers in the underlying geologic units contribute to landslide susceptibility. The Project site is generally flat and not located in a landslide zone, as mapped by the California DOC (DOC 2022b). No impact would occur.

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

Less-than-Significant Impact. The Project would include the construction of the proposed BESS on approximately six acres of vacant undeveloped land. the Project would require submittal of a Stormwater Pollution Prevention Plan (SWPPP) which would include erosion and sediment control Best Management Practices (BMPs) to be used during the construction phase. Additionally, under existing conditions, the Project site is predominantly pervious land. Upon completion of construction, impervious areas on site

would be increased, reducing potential for soil erosion and loss of topsoil. Thus, impacts would be less than significant.

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

Less-than-Significant Impact. As previously discussed, the Project site is not located within a landside or liquefaction zone, or near a known active fault zone (DOC 2022b). The Project would continue through full project design, which would include geotechnical investigations to inform final design and construction of the Project relative to minimization of potential geotechnical risks, including soil stability. Therefore, the Project would not exacerbate geotechnical hazards related to unstable soils and impacts would be less the significant.

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

Less-than-Significant Impact. Expansive soils are clay-based and tend to increase in volume due to water absorption and decrease in water volume due to drying. According to the Geotechnical Site Rating prepared for the Project, expansive clays exist at the surface of the Project site. Furthermore, the Project site is underlain by clayey sand and clayey gravel (Appendix D). To reduce potential impacts associated with expansive soils, project construction would over-excavate expansive soils and replace with low volume changes engineered fill or chemical stabilization with lime or cement. Furthermore, the Project would be required to comply with CBC standards to address geologic conditions of the site. Therefore, impacts would be less than significant.

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

No Impact. The Project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

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

Less-than-Significant Impact with Mitigation Incorporated. A search was conducted of the Natural History Museum of Los Angeles's paleontology collection records. Although the search concluded that no fossil localities underlie the Project site, known fossil localities have been identified nearby within sedimentary deposits that occur within the Project site (Appendix C). In the unlikely event that construction encounters unanticipated archaeological resources, mitigation measure (MM)-**PAL-1** would be implemented. **MM-PAL-1** requires that construction be halted if archaeological materials are encountered to allow for evaluation of the find by a qualified archaeologist who will make recommendations for appropriate treatment and additional study. With implementation of **MM-PAL-1**, impacts would be less than significant.

Mitigation Measure

MM-PAL-1: Unanticipated Discovery of Archaeological Resources. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted

3.8 Greenhouse Gas Emissions

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

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

Construction Emissions

Construction of the Project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The total construction GHG emissions were calculated and then compared to the SMAQMD operational and construction GHG significance thresholds of 1,100 MT CO_2e per year. Additionally, the Project is compared to the SMAQMD NOx screening levels.

The Project would exceed the NOx screening level as it would include trenching activities, cut-and-fill grading operations, and import or export of soil materials. As such, in accordance with the SMAQMD guidelines, emissions must be quantified and compared to the SMAQMD thresholds.

CalEEMod was used to estimate GHG emissions during construction. Construction of the Project is anticipated to last up to 12 months. On-site sources of GHG emissions include off-road equipment and off-site sources include on-road vehicles (haul and vendor trucks and worker vehicles). Table 3.8-1 presents construction GHG emissions for the Project from on-site and off-site emission sources.

Table 3.8-1. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2022	100.31	0.03	0.00	101.82
2023	713.34	0.17	0.01	720.53
			Total	**822.35**
			SMAQMD GHG Threshold	*1,100*
			Threshold Exceeded?	No

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Attachment A for complete results.

As shown in Table 3.8-1, the estimated total GHG emissions during construction of the Project would be approximately 822 MT CO_2e. As previously discussed, the SMAQMD identifies a GHG emission threshold for construction-related emissions of 1,100 MT CO_2e per year. As such, the Project would not exceed the SMAQMD GHG threshold. Therefore, the Project's construction-related GHG emissions would represent a less than significant impact.

Operational Emissions

CalEEMod was used to estimate potential project-generated operational GHG emissions from area sources, energy sources (electricity), mobile sources, off-road equipment, and waste, and water/wastewater. Emissions from each category are discussed below with respect to the Project. Operational year 2023 was assumed following completion of construction. Table 3.8-2 shows the estimated operational and amortized construction emissions from the Project.

Table 3.8-2. Estimated Annual Operation GHG Emissions

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	0.00	0.00	0.00	130.09
Energy	112.73	0.01	0.00	113.37
Mobile	1.34	0.00	0.00	1.36
Off-road	0.25	0.00	0.00	0.26
			Total	**114.98**
			SMAQMD Threshold	*1,100*
			Threshold Exceeded?	No

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Attachment A for complete results.

As shown in Table 3.8-2, the estimated total GHG emissions during operation of the Project would be approximately 115 MT CO_2e per year. The Project would not exceed the SMAQMD threshold of 1,100 MT CO_2e per year. Therefore, operational impacts associated with directly or indirectly generating a significant quantity of GHG emissions would be less than significant.

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

Less-than-Significant Impact

SMAQMD

The Project include the construction of a proposed BESS that would generate few mobile source trips. As the Project does not include natural gas and would not have a parking lot, it would be consistent with the SMAQMD's Tier 1 and Tier 2 Best Management Practices. As the Project does not exceed the SMAQMD 1,100 MT CO_2e per year threshold and implements the Tier 1 and Tier 2 Best Management Practices, it would not conflict with the SMAQMD GHG projections for meeting the state's GHG reduction goals. Therefore, impacts would be considered less than significant.

SACOG MTP/SCS

The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the Sacramento region pro-actively links land use, air quality, and transportation needs. The MTP/SCS is federally required to be updated every four years. The SACOG board adopted the 2020 MTP/SCS and accompanying documents at a special board meeting on November 18, 2019 (SACOG 2019). The MTP/SCS developed four policy priorities for the region and include:

1. Build vibrant places for today's and tomorrows residents;
2. Foster the next generation of mobility solutions;
3. Modernize the way we pay for transportation infrastructure; and
4. Build and maintain a safe, reliable, and multimodal transportation system.

The Project would not conflict with the policy priorities and goals of the MTP/SCS. The project is not growth inducing and would not exceed the growth projections of the MTP/SCS. The Project, as an energy storage project, by design would mitigate renewable energy intermittency, facilitating the retirement of fossil fuel vehicles and the transition to electric vehicles. Therefore, the Project would not conflict with the MTP/SCS and impacts would be less than significant.

Consistency with the California Air Resources Board Scoping Plan

The CARB Scoping Plan provides framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHG emissions. Under the Scoping Plan, there are several state regulatory measures aimed at the identification and reduction of GHG emissions.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the Project.

The Project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Executive Order (EO) S-03-05 and SB 32. EO S-03-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory toward meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

The Project would not interfere with implementation of any of the GHG reduction goals for 2030 or 2050 because the Project would not exceed SMAQMD's screening threshold of 1,100 MT CO_2e per year. As such, the Project would not impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. Therefore, the Project's impact associated with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

A Phase I Environmental Site Assessment was prepared for the Project by EA Engineering, Science, and Technology, Inc. and is included as Appendix E to this Initial Study. This section summarizes the result of the Phase I Environmental Site Assessment. Full details regarding regulatory setting, methodology, and other information can be found in Appendix E.

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

Less-than-Significant Impact. The transport, storage, use, and disposal of hazardous materials and wastes is extensively regulated by federal, state, and local policies, which provide a high level of protection to the public. Disclosure laws such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, Hazardous Waste Control Law, California Code of Regulations (CCR) Title 22, and Business Plan Act, CCR Title 26, require users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport and to notify the appropriate city, county, state, and federal agencies in the event of a violation.

Under normal operations, BESS facilities do not store or generate hazardous materials in quantities that would represent a risk to off-site receptors. In addition, the Project's preventative measures and fire and safety systems make an accident condition very rare. Because lithium-ion and LFP BESS facilities do store energy, a battery thermal runaway can occur if a cell, or area within a cell, achieves elevated temperatures due to thermal failure, mechanical failure, internal/external short circuiting, and electrochemical abuse. However, as previously stated, the Project's preventative measures, and fire and safety systems, make a thermal runaway event very rare. In addition, the 2019 California Fire Code (CFC) also requires that all BESS use an Energy Management System for monitoring and balancing cell voltages, currents and temperatures. The system must transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. The fire code also requires the use of appropriate fire-extinguishing and smoke detection systems, which will be incorporated into each of the

Project's BESS enclosures. Therefore, with compliance with the CFC and installation of an Energy Management system, impacts would be less than significant.

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

Less-than-Significant Impact. The transport, storage, and use of hazardous materials during construction and operation would be required to comply with federal, state, and local regulations. Facilities that use hazardous materials are required to obtain permits from the EPA under the Resource Conservation and Recovery Act, which gives the EPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste. Additionally, the hazardous materials regulations included in federal law govern the transportation of hazardous materials. The Federal Motor Carrier Safety Administration issues regulations concerning highway routing of hazardous materials, hazardous materials endorsements for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

Under normal operations, battery energy storage system facilities do not store or generate hazardous materials in quantities that would represent a risk to off-site receptors. In addition, the Project's preventative measures and integrated operational management systems, fire, and safety systems, such as HVAC systems, ventilation, gas, heat and smoke detection and alarms, and fire suppression systems, make an accident condition very rare and they are designed to limit a credible thermal runaway event to the cell level. The Phase I ESA found no spills, stains, or other indications that a surficial release has occurred at the site. Additionally, no contamination by hazardous substances or petroleum products has affected the Project site (Appendix D). Thus, based on the findings of the Phase I ESA and with compliance with applicable federal, state, and local regulations regarding the transport, storage, and use of hazardous materials during project construction and operation, impacts would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. The nearest schools to the Project site are Sunrise Elementary School (11821 Cobblebrook Drive), located approximately 1.7 miles west of the Project site, and Robert J. Mcgravey Elementary School (4350 Sophistry Drive), located approximately 1.58 miles west of the Project site. Thus, the Project would not be located within one-quarter mile of a school. Hazardous materials handled on site during construction activities would comply with applicable hazardous materials regulations to reduce potential impacts. The Project would include the construction of the proposed BESS which would discharge into the grid when energy is needed, providing important electrical reliability services to the local area. The Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings habitable structures. Any potential hazardous substance used on site would be related to future maintenance activities and would adhere to applicable regulations regarding hazardous materials. Impacts would be less than significant.

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

No Impact. According to the DTSC's EnviroStor database, there are no clean-up sites located within or near the Project site with an open-site assessment status (DTSC 2022). Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List. The SWRCB's GeoTracker database identifies leaking underground storage tanks, waste discharge sites, oil and gas sites, and other waste or cleanup sites. A review of GeoTracker did not identify any sites or facilities within or adjacent to the project area. Therefore, no impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest airport to the Project site is Mather Airport, located approximately 4.7 miles to the west. The Project site is not located within the Noise Exposure Ranges as identified in the Mather Airport Land Use Compatibility Plan (SACOG 2020). In addition, the Project site is not located within any of the airport's Safety Zones (SACOG 2020. The Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures. It is expected that between two to four staff members will visit the site weekly and as needed for maintenance and monitoring. As such, during operation, the Project would not expose people to a safety hazard or excessive noise levels. No impact would occur.

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

No Impact. The Project site is located within a Local Responsibility Area (LRA) and is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) within an LRA (CAL FIRE 2022). In 2016, the County prepared the Sacramento County Hazard Mitigation Plan (HMP), which identifies plans, programs, and mitigation measures to minimize impacts of identified hazards. The HMP is a document that contains information to assist in planning for the occurrence of natural and man-made hazards; it contains strategies to help mitigate the impact of these hazards (Sacramento County 2016). Project construction is not anticipated to require the partial or temporary closure of surrounding roadways. In the event of an emergency, emergency personnel would be able to access the roads surrounding the Project site as well as access the Project site. As such, project implementation would not substantially impair an adopted emergency response or evacuation plan. No impact would occur.

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

Less-than-Significant Impact. As previously discussed, the Project site is not located within a fire hazard severity zone. The Project would be operated remotely with no permanent on-site operations and no occupied buildings or habitable structures. The Project will include current best practices for fire safety. The batteries would be subject to compliance with existing federal, state, and local regulations for health and safety, the proposed BESS would contain a safety system that would include a fire detection and suppression control system that would be triggered automatically when the system senses imminent fire danger, and the fire

suppression system inside each enclosure will shut down the unit if any hazard indicators are detected. In the event of an emergency, the property owner would be immediately alerted through the remote monitoring system, which includes temperature sensors within the equipment that is monitored 24 hours a day, seven days a week. Upon learning of an emergency situation, the proper emergency services would be alerted. The Project would adhere to applicable requirements set forth by the 2019 CFC adopted by the City's Code of Ordinances. Impacts would be less than significant.

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3.10 Hydrology and Water Quality

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

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

Less-than-Significant Impact. Construction activities resulting from Project implementation would disturb soils, which could increase siltation of nearby drainage systems. The Project would be required to prepare a SWPPP, which would ensure appropriate measures are implemented to control erosion and protect water quality during both Project construction and operation. Additionally, the Project would implement standard construction BMPs during project construction to prevent and control any erosion. Compliance with construction measures would ensure that the Project would not violate any water quality standards or waste discharge requirements set forth by the Sacramento River Watershed Program or result in the degradation of surface and groundwater quality. Therefore, impacts would be less than significant.

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

Less-than-Significant Impact. The Project would include the construction of the proposed BESS. Implementation of the Project would not result in the use of groundwater and, therefore, would not decrease or interfere with existing groundwater. The Project site consists of six acres of vacant undeveloped land. As such, project implementation would increase the amount of impervious surfaces on-site. However, since other undeveloped areas surrounding the Project would allow for groundwater recharge within the Project area, impacts would be less than significant.

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

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

Less-than-Significant Impact. The Project would include the construction of the proposed BESS on approximately six acres of vacant undeveloped land. As discussed in response to Threshold 3.7 (b), the Project would require submittal of a SWPPP which would include erosion and sediment control Best Management Practices (BMPs) to be used during the construction phase. Additionally, upon completion of construction, impervious areas on-site would be increased, reducing potential for soil erosion. Thus, impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less-than-Significant Impact. The Project would increase the amount of impervious surfaces on the Project site and inevitably alter the existing on-site drainage pattern. Runoff generated by the Project site would be collected by proposed stormwater retention basin at the northern portion of the site, which would capture the peak runoff rates. Additionally, through implementation existing regulations, flooding impacts from changes to the existing drainage patterns and increasing imperviousness as a result of the Project would be less than significant.

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

Less-than-Significant Impact. As previously discussed, the proposed stormwater retention basin would capture project-generated runoff, which would eventually discharge into the City's storm drain system. Further, through implementation of existing regulations regarding stormwater, the Project would not exceed the capacity of drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts would be less than significant.

iv) Impede or redirect flood flows?

No Impact. According to Federal Emergency Management Agency (FEMA) flood maps, the Project is not located within a designated high risk flood hazard area (FEMA 2022). The Project site is located within Zone X, which includes areas of minimal flood hazard (FEMA 2022). Implementation of the project would not impede or redirect flood flows. Therefore, no impact would occur.

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

No Impact. As discussed above, the Project site is not located within a designated high risk flood hazard area (FEMA 2022). Additionally, the Project site is not located within a tsunami inundation zone and seiches do not pose a hazard to the Project site (DOC 2022c). During construction the Project would implement BMPs to ensure flows from the Project site would not release pollutants into downstream receiving waters. Upon completion of construction, the Project would not require the storage of pollutants that, in the event of inundation, could be released. Therefore, the impacts associated with the risk of release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone would not occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. A Water Quality Plan was prepared for the Central Valley Region in 1998, and last revised in 2016. Construction and operation of the Project would not interfere with implementation of the plan and the Project would comply with applicable permits and construction measures that would ensure that the Project would not violate any water quality standards. Therefore, this impact would be less than significant.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a linear feature (such as a major highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and outlying area. The Project includes the construction of the proposed BESS on an approximately six-acre Project site in the western portion of the City. The Project site is currently vacant and undeveloped. Access to the Project site would be provided via Canyonlands Drive and Poopenaut Court. The Project includes no barrier or other component that would act to physically divide an established community and no impacts would occur.

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

No Impact. The Project includes the construction of the proposed BESS. Operation and maintenance of the Project would not substantially differ from existing practices and protocol of the existing SMUD Cordova Substation, which the Project would interconnect with. Furthermore, the Project site is zoned LC in the SRSP, which allows for a commercial mixed-use development. The Project would require a zone text amendment to allow for the development of the proposed BESS within the LC zoning designation. Upon approval of the requested zone text amendment, the Project would not conflict with the LC zoning designation. Impacts would be less than significant.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

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

No Impact. The Sacramento General Plan identifies locations of areas designated as Mineral Resource Zone MRZ-2 within the County. According to the general plan, remaining aggregate deposits are located in the Old American River Channel, located south of the City (Sacramento County 2011). These areas are protected by the County for future mining purposes. The Project site is not within any of these areas as identified by the County's general plan. Furthermore, the Project site it zoned LC. Mineral extraction is not a permitted use within this zone. No impact would occur.

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

No Impact As discussed in response to Threshold 3.12 (a), the Project site is not located within a MRZ-2, as identified by the County's general plan. The Project site consists of undeveloped, vacant land and is not considered a locally important mineral resource recovery site. Therefore, no impact would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

A Noise and Vibration Assessment Letter Report was prepared for the Project by Dudek as is included as Appendix F to this Initial Study. This section summarizes the result of the Noise and Vibration Assessment Letter Report. Full details regarding regulatory setting, methodology, and other information can be found in Appendix F.

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

Less-than-Significant Impact.

Construction

Construction activities would result in short-term noise. Construction activities would consist grading and site preparation, paving activities, and building construction, all of which require the use of heavy-duty equipment that generate varying noise levels. Construction activities would be limited to the less noise-sensitive hours (e.g., daytime) of 7:00 a.m. to 7:00 p.m., Monday through Saturday, in accordance with Chapter 6.68 Noise Control of the City's municipal code (City of Rancho Cordova 2022). Construction-generated noise levels would fluctuate depending on the type, number, and duration of equipment used. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise -sensitive receptors, and the existing ambient noise environment at nearby receptors. Construction equipment would vary by phase, but the entire construction process would include operation of an air compressor, backhoe, haul trucks and trailers, compactor, concrete mixer and pump, crane, dozer, and other standard construction equipment. Noise generated from these pieces of equipment would be intermittent and short as typical use is characterized by periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions.

The grading and site preparation phase typically generate the most substantial noise levels because of the onsite equipment associated with grading and compacting are the noisiest. Site preparation equipment and activities would include an excavator, a backhoe and dozer. Because this is typically the loudest phase, it was assumed that these pieces of equipment could be operating simultaneously, generating the loudest anticipated noise levels for the overall construction activities. Noise emission levels from these types of construction equipment are shown in Table 3.13-1.

Table 3.13-1. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dB) – 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, derrick	88
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jack hammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Scraper	89
Truck	88

Based on the reference noise levels listed in Table 3.13-1 and accounting for typical usage factors for each piece of equipment, onsite construction activities could generate an average noise level of approximately 67 dB at 50 feet from the Project site boundary

The City does not have adopted daytime construction noise standards. However, when evaluating potential noise impacts, temporary short-term noise occurring during the less sensitive times of the day, when people are active, out of their homes, or otherwise not sleeping, are generally considered less of a nuisance and less likely to disrupt sleep, or otherwise result in significant noise exposure. Thus, considering that construction activities would occur during the daytime hours, in accordance with typical City-required conditions of approval limiting construction activities to Monday through Saturdays from 7:00 a.m. and 7:00 p.m., overall construction activities would be temporary, construction noise levels would fluctuate, and the loudest levels would occur for a shorter duration than the overall construction duration, existing nearby sensitive receptors would not be substantially affected. Therefore, short-term construction impacts would be less than significant.

Operation

The Project would include the construction of a BESS. The Project would create operational noise from the proposed on-site equipment. The Project would require a zone text amendment to allow for the development of the proposed BESS within the LC zoning designation. Upon approval of the requested zone

text amendment, the Project would be consistent with the allowed uses within the LC zoning designation, which include BESS facilities. Section 6.68.070 of the City's Municipal Code establishes the maximum noise levels allowed within residential zones, and for stationary noise sources that could affect residential properties. The residences to the west, northwest, and north of the Project site are zoned RD-5. As such, the Project is restricted to noise levels no greater than 55 dBA Leq during the daytime and 50 dBA Leq during the nighttime.

Findings from the Noise and Vibration Assessment Letter Report show that operational noise levels created by the Project would be within the City's daytime and nighttime noise standards at the nearby receptors (Appendix F). Therefore, the Project would not result in a substantial permanent increase in ambient noise levels from on-site noise sources. Impacts would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. The nearest off-site structures that are susceptible to vibration as single-family homes located west of the Project site, where the nearest residential structure is approximately 275 feet away from the Project site. Since the City's Municipal Code does not provide a quantifiable vibration threshold level, Caltrans guidance has been utilized, which defines the threshold of perception from transient sources at 0.25 inch per second peak particle velocity (PPV). Refer to Appendix F for further details.

The primary source of vibration during construction would be from the operation of a large bulldozer. A large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest off-site structure (275 feet away) would be 0.0002 inch per second PPV. The vibration level at the nearest residential structure would be below the 0.25 inch per second PPV threshold detailed above. The on-going operation of the Project would not include the operation of any known vibration sources. Therefore, groundborne vibration or groundborne noise impacts during construction and operation of the Project would be less than significant.

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

No Impact. The nearest airport to the Project site is Mather Airport, located approximately 4.7 miles to the west. The Project site is not located within the Noise Exposure Ranges as identified in the Mather Airport Land Use Compatibility Plan (SACOG 2020). In addition, the Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures. It is expected that between two to four staff members will visit the site weekly and as needed for maintenance and monitoring. As such, during operation, the Project would not expose people to excessive noise levels. No impact would occur.

3.14 Population and Housing

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

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

Less-than-Significant Impact. The Project would include the construction of a BESS on an approximately six-acre Project site. The purpose of the Project is to provide essential regional and local grid reliability, help to meet California's goal of a zero carbon future by complimenting renewable energy generation, and help to reduce the likelihood of local outages. The Project would not include the construction of new residential uses, businesses, roads, or other infrastructure that may result in an increase in unplanned population. As such, the Project would not induce substantial unplanned population growth; impacts would be less than significant.

b) ***Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

No Impact. The Project site consists of six acres of vacant undeveloped land. The Project would not affect any existing housing or necessitate construction of replacement housing in the area. Therefore, implementation of the Project would result in no impacts associated with displacement of people or housing.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

Fire protection?

Less-than-Significant Impact. The closest fire station to the Project site is Fire Station 61, located approximately 5.54 miles northwest of the Project site. Based on the Project site being located within the service area of the fire station and the proximity of the Project site to the fire station, it is anticipated that the Project could be adequately served by Sacramento Metropolitan Fire District without adversely affecting personnel-to-resident ratios, response times, or other performance objectives.

The City has adopted the 2019 California Building Standards Code, Title 24, incorporating the International Fire Code, 2018 Edition, which lists the minimum required fire-flow and flow duration for buildings of different floor areas and construction types. This includes compliance with all applicable fire code and Sacramento Metropolitan Fire District requirements and standards for construction, access, water mains, fire flow, and fire hydrants. Prior to any site development or future project approvals, all plans will be required to be submitted to the fire marshal for review and verification that they conform to all pertinent fire standards and requirements. The Project will be constructed in accordance with these regulations. Therefore, impacts would be less than significant.

Police protection?

Less-than-Significant Impact. The Project site is located approximately 4.4 miles southeast of the Rancho Cordova Police Department (RCPD) (2897 Kilgore Road). Based on the Project site being located within the service area of the RCPD and the proximity of the Project site to the RCPD, as well as the fact that the Project will be fully enclosed, have no public access, will be operated remotely, and will have private security

services available 24 hours per day, seven days per week. It is anticipated that the Project could be served without adversely affecting personnel-to-resident ratios, response times, or other performance objectives. Therefore, impacts would be less than significant.

Schools?

No Impact. The Project would not directly or indirectly induce population growth in the City. The number of employees hired to construct the Project would be minimal and would likely already reside within the broader project area. Additionally, the Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures resulting in increased population or demand on schools. It is expected that between two to four staff members will visit the site bi-weekly and as needed for maintenance and monitoring. As such, it is not anticipated that people would relocate to the City as a result of the Project, and thus, an increase in school-age children requiring public education is not expected to occur. No Impact would occur.

Parks?

No Impact. The Project would not result in population growth, and as such, would not increase demands on park and recreation facilities. Therefore, no impact would occur.

Other public facilities?

No Impact. The Project would not directly or indirectly increase demand of public facilities. The number of employees hired to construct the Project would be minimal and would likely already reside within the broader project area. Additionally, the Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures resulting in increased population or demand of public facilities. It is expected that between two to four staff members will visit the site weekly and as needed for maintenance and monitoring. As such, it is not anticipated that people would relocate to the City as a result of the Project, and thus, an increase in demand of public facilities. No Impact would occur.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

a) ***Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

No Impact. The Project proposes a new battery energy storage facility and thus would not introduce a residential development. As such, the Project would not increase the use of existing parks and recreational facilities such that substantial physical deterioration of recreational facilities would occur or be accelerated. Additionally, due to the anticipated limited number of construction personnel, short-term impacts to local recreational facilities would not occur. Further, upon operation, the Project would be operated remotely with no permanent on-site operations and maintenance personnel. Therefore, impacts would not occur.

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

No Impact. The Project would not induce substantial population growth in the City. Thus, the Project would not increase the demand for recreational facilities. Additionally, the Project would not promote or indirectly induce new development that would require the construction or expansion of recreational facilities. Therefore, impacts would not occur.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. The Project site consist of vacant undeveloped land. The Project site contains no sidewalks, bicycle lanes, or transit facilities along Canyonlands Drive or Poopenaut Court. Additionally, because the Project would operate remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures, operational vehicle trips generated because of the Project would be negligible. The Project would not conflict with any policies, plans, or programs regarding public transit, roadway, bicycle, or pedestrian facilities or the performance or safety of those facilities. Impacts would not occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less-than-Significant Impact. The Project proposes construction and operation of a BESS. Construction of the Project is anticipated to occur over approximately 12 months. Although construction of the Project would require transport of materials to/from the Project site by heavy equipment, the construction period is considered temporary, and all routine construction-related trips as well as construction worker commutes would cease once construction is complete. The Project would be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures. It is expected that between two to four staff members will visit the site weekly, or as needed for maintenance and monitoring. As such, because vehicle trips generated by the Project would be negligible, the Project would not conflict with CEQA Guidelines section 15064.3, subdivision (b). Thus, impacts would be less than significant.

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

Less-than-Significant Impact. Access to the Project site would be provided via driveways located on Canyonlands Drive and/or Poopenaut Court. The Project does not include any substantial changes to the existing roadways. Additionally, the Project would comply with existing laws, rules and regulations. Therefore, impacts associated with hazardous design features would be less than significant.

d) Would the project result in inadequate emergency access?

No Impact. The Project site consists of six acres of vacant undeveloped land within the City. Construction of the Project would not require the full or partial closure of surrounding roads. In the event of an

emergency, emergency vehicles would be able to access the Project site and surrounding are during construction and operation. As such, the Project would not result in inadequate emergency access. No impact would occur.

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3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

No impact. The Project site consists of undeveloped vacant land that had been previously disturbed by agricultural uses until the early 2000s (Appendix C). As discussed in response to Threshold 3.5 (a), the only previously recorded cultural resource is a historic industrial building located within the 0.5-mile search radius. However, this resource has been found ineligible for the NRHP and CRHR. Therefore, Project implementation is would not cause a substantial change to a cultural resource listed or eligible for listing in the CRHR. No impact would occur.

b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less-than-significant Impact. As discussed in Section 3.5, Cultural Resources, Dudek requested a NAHC search of their SLF for the Project site. the NAHC responded that the result of the SLF search was negative. In addition, no cultural resources were observed during the intensive pedestrian survey. As such, it is highly unlikely that project construction activities would disturb unknown tribal cultural resources. Impacts would be less than significant.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

a) Would the project require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact.

Water Facilities

Construction water required for the Project would be minimal, and only for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used during ingress and egress of on-site construction vehicle equipment traffic and during the construction of the energy storage equipment. The water used may be supplied by purchase from local water purveyors or hauled to the project site via water trucks. No new wastewater facilities would be developed for the Project.

Electric Power Facilities

The Project will be charged from the electric grid via the Project's interconnection to SMUD Cordova Substation located immediately adjacent to the Project site. Energy stored in the Project will then be discharged into the grid when the energy is needed, providing important electrical reliability services to the local area. This extension would not result in additional adverse physical effects beyond those already identified in other sections of this environmental analysis.

Natural Gas

Because the Project site would be unmanned and no residences are proposed as part of the Project, no new or expanded natural gas facilities would be required.

Telecommunication Facilities

Because the Project site would be unmanned, and daily operations would be monitored remotely through the proposed fiber optic line, the Project would not require the construction of new or expanded telecommunications facilities.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. As discussed in response to Threshold 3.19 (a), the Project would require minimal water usage during construction. Additionally, since no habitable structures would be constructed as part of the Project, operational water required for the Project would be minimal, and only for ongoing maintenance. Impacts would be less than significant.

c) Would the project result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The Project would not require wastewater services at the site. Therefore, the Project would not impact any wastewater treatment provider.

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. It is expected that the Project would generate minimal solid waste. The amount of solid waste to be generated by the Project is dependent on the manufacturer chosen for the Project and whether or not the BESS enclosures will be assembled off or on-site. The Sacramento County Landfill has a maximum permitted throughput of 10,815 tons per day. Additionally, the landfill has a max permitted capacity of 117,400,00 cubic yards and a remaining capacity of 112,700 cubic yards. It is anticipated that the landfill will close in 2064 (CalRecylce 2022). As such, the Sacramento Landfill would have the capacity to serve the Project. With adherence to the appliable waste management plans and regulations set by the state and local jurisdiction, implementation actions related to solid waste disposal, impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Construction-generated solid waste would be temporary, and operation of the Project would not generate solid waste beyond existing conditions Solid waste generated by the Project would be disposed of at designated landfill facilities in compliance with federal, state, and local regulation. No impact would occur.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. As discussed in response to Threshold 3.10 (f), the Project site is located within an LRA and is not located within a VHFHSZ within an LRA (CAL FIRE 2022). In 2016, the County prepared the Sacramento County Hazard Mitigation Plan (HMP), which identifies plans, programs, and mitigation measures to minimize impacts of identified hazards. The HMP is a document that contains information to assist in planning for the occurrence of natural and man-made hazards; it contains strategies to help mitigate the impact of these hazards (Sacramento County 2016). The Project would include the installation of the BESS on an approximately six-acre vacant undeveloped parcel. Project construction is not anticipated to require the partial or temporary closure of surrounding roadways. In the event of an emergency, emergency personnel would be able to access the roads surrounding the Project site as well as access the Project site. As such, project implementation would not substantially impair an adopted emergency response or evacuation plan. No impact would occur.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. Construction of the Project would comply with Chapter 17.04.010 of the City's Municipal Code, which adopts the California Fire Code (CFC). Chapter 33 of the CFC outlines general fire safety precautions during construction and demolition that are intended to maintain minimum levels of fire protection and limit the spread of fire (California Fire Code 2019). The Project would not include structures intended for long-term occupancy. The Project site is relatively flat and is characterized by non-native grassland and disturbed habitat. In the event of a wildfire, vegetation on the Project site could ignite and contribute to fire spread, but neither the location of the Project site or any components of the Project would contribute to heightened fire risk.

Chapter 12 of the 2019 California Fire Code requires the use of an Energy Management System, for monitoring and balancing cell voltages, currents and temperatures. The system must transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected. The fire code also requires the use of an appropriate fire extinguishing and smoke detection system, to the satisfaction of the fire official which will be incorporated into each of the Project's BESS enclosures. The batteries selected for the Project will use lithium-ion or LFP cell technology. The batteries would be subject to compliance with existing federal, state, and local regulations for health and safety, including the 2019 California Fire Code. The existing regulations control the conditions under which

the energy storage (battery) component can operate, and because the site will comply with all fire clearance requirements for vegetation, the fire impact is less than significant. In addition, the battery storage would contain a fire protection system that would include a fire detection and suppression control system that would be triggered automatically when the system senses imminent fire danger. The fire suppression system will shut down the unit if any hazard indicators are detected.

Because the Project has a multi-layered approach to fire safety it would be a rare event for a fire to occur at the site that could not be controlled by these features or by responding firefighters from nearby fire stations. The likelihood of a facility fire escaping and igniting vegetation is considered extremely low due to the protections and setbacks from the nearest unmaintained vegetation and there would be no project occupants as it is an unmanned facility. Therefore, because the potential for a wildfire ignition caused by the facility's operations is considered an extremely rare event and the absence of project occupants, the potential for impacts would be less than significant.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-Significant Impact. Under existing conditions, the Project site is vacant undeveloped land. The Project would include electrical cable and telecommunication connections, wiring and electrical system installation, and would include assembly of the accessory components including inverter transformers and generation step-up transformers installation of high voltage equipment, and generation tie-line interconnecting to the SMUD Cordova substation. However, as described above, the Project will include current best practices for fire safety. The batteries would be subject to compliance with existing federal, state, and local regulations for health and safety, the battery storage would contain a safety system that would include a fire detection and suppression control system that would be triggered automatically when the system senses imminent fire danger, and the fire suppression system inside each enclosure will shut down the unit if any hazard indicators are detected.

The Project will be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings or habitable structures. It is expected that between two to four staff members will visit the site weekly and as needed for maintenance and monitoring. The Project site will be fully enclosed and will not be open to the public. The Project will be monitored 24 hours per day, seven days per week. The system will transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected.

Accordingly, it is not anticipated that the Project would exacerbate fire risk, since electrical cables and telecommunications would be undergrounded, and pavement of the site would serve as a fuel break. Therefore, impacts would be less than significant.

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

Less-Than-Significant Impact. For reasons described previously in responses to Thresholds 3.9 (g), and 3.20(a), (b), and (c), the Project would not pose a substantial risk for wildfire. The Project would be located on relatively flat land. Furthermore, the Project would not include habitable structures or other structural development intended for human occupancy. As such, implementation of the Project would not expose

people or structures to significant risks from post-fire slope instability or drainage changes. Impacts would be less than significant.

3.21 Mandatory Findings of Significance

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

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

Less than Significant with Mitigation Incorporated. As discussed in Section 3.5, Cultural Resources, potential impacts to archaeological resources would be reduced to a level below significance with incorporation of **MM-PAL-1**. The Project would not eliminate important examples of the major periods of California history or prehistory. Overall, Impacts would be less than significant with incorporation of the mitigation measure.

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

Less than Significant. Given the nature of the Project, potential cumulative impacts could occur during the temporary construction work if other projects occur in the same timeframe and area. The Project construction would occur within an undeveloped six-acre parcel within the City of Rancho Cordova and no other substantial projects are known from the same area. The Project would include to construction of the proposed BESS and connection to the existing SMUD Cordova Substation. The Project's contribution to cumulative impacts would be less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant. The potential for adverse direct or indirect impacts to human beings was considered throughout Chapter 3 of this initial Study, Based on this evaluation, there is no substantial evidence that construction or operation of the Project would result in a substantial adverse effect on human beings. Impacts would be less than significant.

4 References and Preparers

4.1 References Cited

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4.2 List of Preparers

City of Rancho Cordova

Darcy Goulart, Planning Manager

DUDEK

Keith Carwana, Project Manager
Candice Magnus, Project Manager
Tyler Friesen, GIS Specialist

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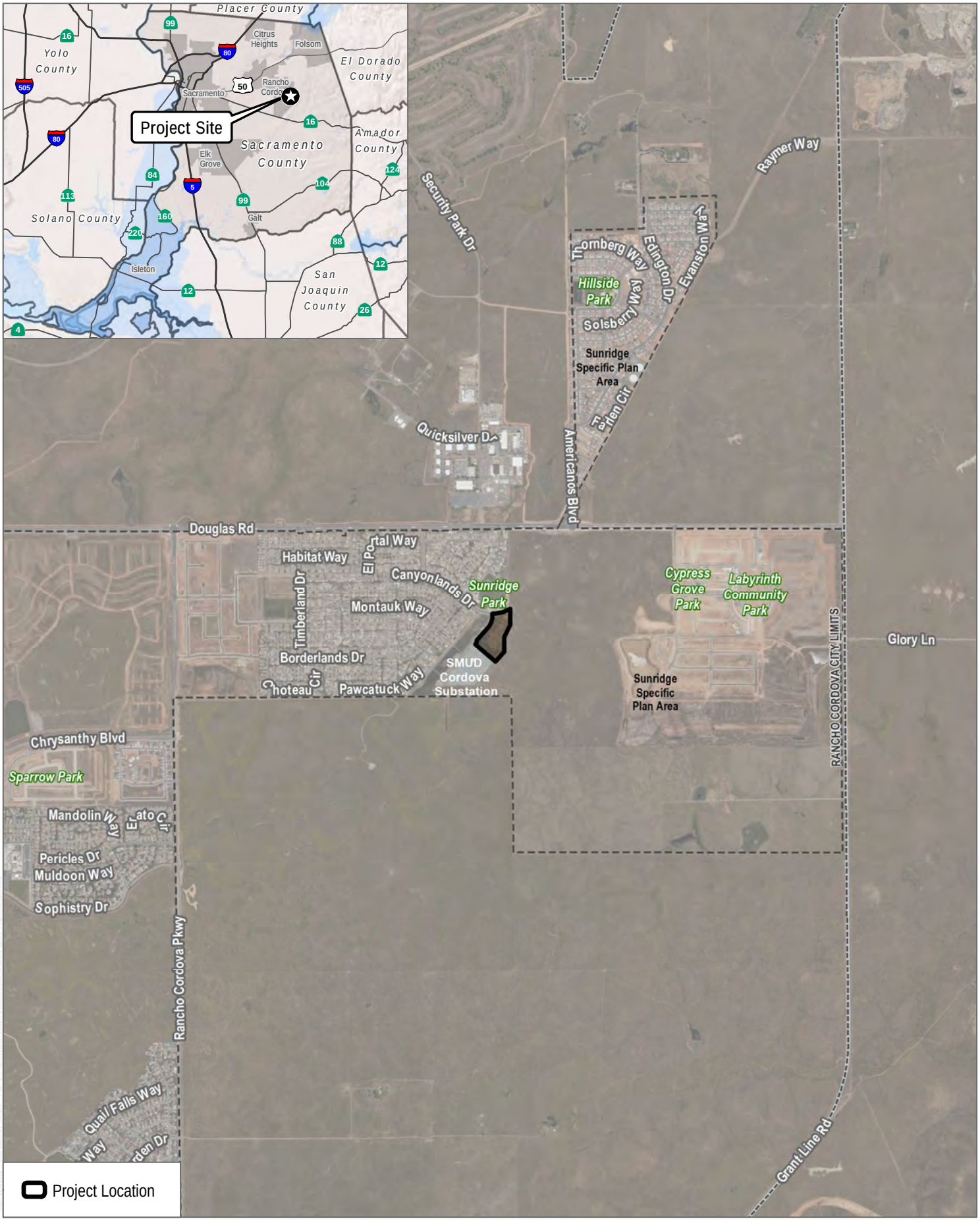

SOURCE: Bing Imagery 2021; County of Sacramento 2021; Open Street Maps 2019

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Initial Study for the Juniper Creek Energy Storage Project

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SOURCE: Bing imagery 2021; Sacramento County 2021; Open Street Maps 2019

DUDEK

0 250 500 Feet

FIGURE 2

Project Site

Initial Study for the Juniper Creek Energy Storage Project

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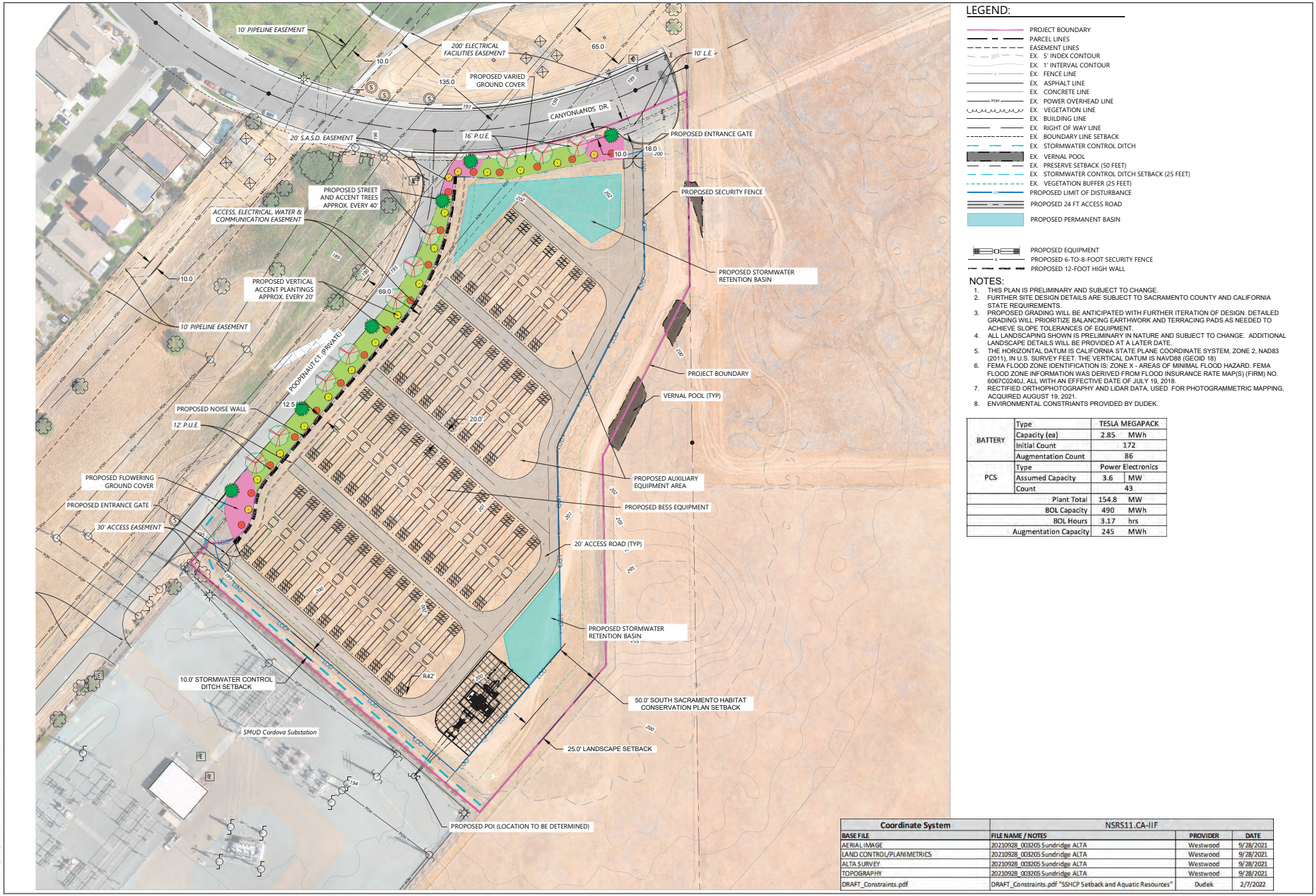

LEGEND:

- PROJECT BOUNDARY
- PARCEL LINES
- EASEMENT LINES
- EX. 5' INDEX CONTOUR
- EX. 1' INTERVAL CONTOUR
- EX. FENCE LINE
- EX. ASPHALT LINE
- EX. CONCRETE LINE
- EX. POWER OVERHEAD LINE
- EX. VEGETATION LINE
- EX. BUILDING LINE
- EX. RIGHT OF WAY LINE
- EX. BOUNDARY LINE SETBACK
- EX. STORMWATER CONTROL DITCH
- EX. VERNAL POOL
- EX. PRESERVE SETBACK (50 FEET)
- EX. STORMWATER CONTROL DITCH SETBACK (25 FEET)
- EX. VEGETATION BUFFER (25 FEET)
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED 24 FT ACCESS ROAD
- PROPOSED PERMANENT BASIN
- PROPOSED EQUIPMENT
- PROPOSED 6-TO-8-FOOT SECURITY FENCE
- PROPOSED 12-FOOT HIGH WALL

NOTES:

1. THIS PLAN IS PRELIMINARY AND SUBJECT TO CHANGE.
2. FURTHER SITE DESIGN DETAILS ARE SUBJECT TO SACRAMENTO COUNTY AND CALIFORNIA STATE REQUIREMENTS.
3. PROPOSED GRADING WILL BE ANTICIPATED WITH FURTHER ITERATION OF DESIGN. DETAILED GRADING WILL PRIORITIZE BALANCING EARTHWORK AND TERRACING PADS AS NEEDED TO ACHIEVE SLOPE TOLERANCES OF EQUIPMENT.
4. ALL LANDSCAPING SHOWN IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE. ADDITIONAL LANDSCAPE DETAILS WILL BE PROVIDED AT A LATER DATE.
5. THE HORIZONTAL DATUM IS CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE 2, NAD83 (2011), IN U.S. SURVEY FEET. THE VERTICAL DATUM IS NAVD88 (GEOID 18)
6. FEMA FLOOD ZONE IDENTIFICATION IS: ZONE X - AREAS OF MINIMAL FLOOD HAZARD. FEMA FLOOD ZONE INFORMATION WAS DERIVED FROM FLOOD INSURANCE RATE MAP(S) (FIRM) NO. 6067C0240J, ALL WITH AN EFFECTIVE DATE OF JULY 19, 2018.
7. RECTIFIED ORTHOPHOTOGRAPHY AND LIDAR DATA, USED FOR PHOTOGRAMMETRIC MAPPING, ACQUIRED AUGUST 19, 2021.
8. ENVIRONMENTAL CONSTRIANTS PROVIDED BY DUDEK.

BATTERY	Type	TESLA MEGAPACK	
	Capacity (ea)	2.85	MWh
	Initial Count	172	
	Augmentation Count	86	
PCS	Type	Power Electronics	
	Assumed Capacity	3.6	MW
	Count	43	
Plant Total		154.8	MW
BOL Capacity		490	MWh
BOL Hours		3.17	hrs
Augmentation Capacity		245	MWh

Coordinate System	NSRS11.CA-IIF		
BASE FILE	FILE NAME / NOTES	PROVIDER	DATE
AERIAL IMAGE	20210928_003205 Sundridge ALTA	Westwood	9/28/2021
LAND CONTROL/PLANIMETRICS	20210928_003205 Sundridge ALTA	Westwood	9/28/2021
ALTA SURVEY	20210928_003205 Sundridge ALTA	Westwood	9/28/2021
TOPOGRAPHY	20210928_003205 Sundridge ALTA	Westwood	9/28/2021
DRAFT_Constraints.pdf	DRAFT_Constraints.pdf "SSHCP Setback and Aquatic Resources"	Dudek	2/7/2022

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Source: Westwood Professional Services, Inc. 2022

DUDEK

FIGURE 3

Preliminary Site Plan

Initial Study for the Juniper Creek Energy Storage Project

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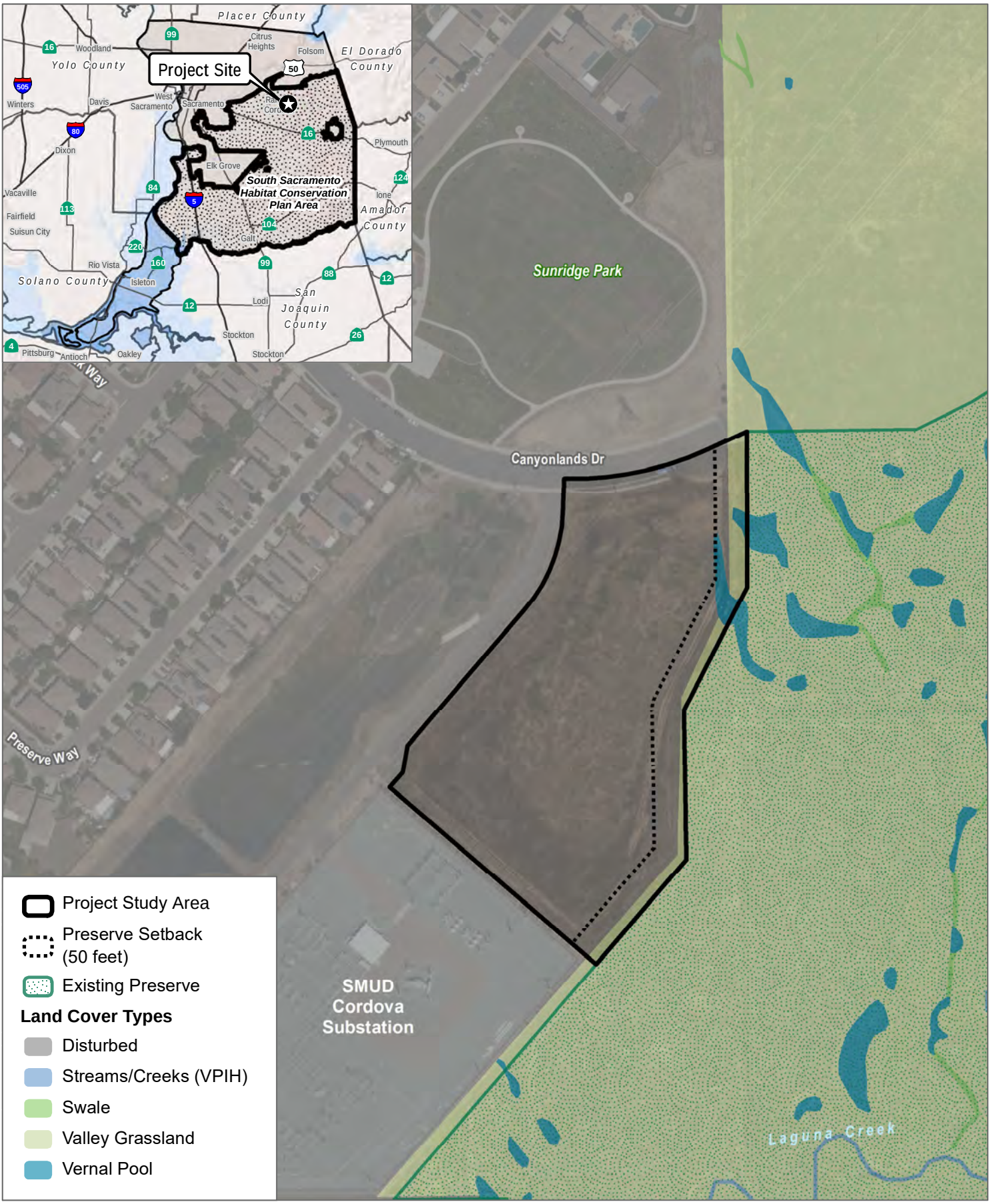

SOURCE: Bing Imagery 2021; County of Sacramento 2015

DUDEK

0 100 200 Feet

FIGURE 4

South Sacramento Habitat Conservation Plan (SSHCP) - Modeled Land Covers

Initial Study for the Juniper Creek Energy Storage Project

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Appendix A

Air Quality and Greenhouse Gas Emissions Study

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April 11, 2022 13267

Keleigh Wright
Vesper Energy
906 W McDermott Drive, Suite 116-366
Allen, Texas 75013

Subject: Sunridge Energy Storage Project Air Quality and Greenhouse Gas Emissions Study

Dear Ms. Wright:

Dudek is pleased to present Vesper Energy with the following air quality and greenhouse gas (GHG) analysis for the proposed Sunridge Energy Storage Project (Project) located in the City of Rancho Cordova, California (City). The Project site would be located on approximately six acres of vacant land on APN 067-0780-011-0000.

This memorandum estimates criteria air pollutant and GHG emissions and impacts from construction and operation of the proposed Project in accordance with the California Environmental Quality Act (CEQA) Guidelines and the Sacramento Metropolitan Air Quality Management District (SMAQMD). The contents and organization of this memorandum are as follows: Section 1, Project Description, Section 2, General Analysis and Methodology, Section 3 and Section 4, Thresholds of Significance and Impact Analyses for the Air Quality Assessment and GHG Emissions Assessment, Section 5, Conclusions, and Section 6 References Cited.

1 Project Description

The Project will be composed of lithium-ion batteries installed in racks, inverters, medium-voltage (MV) transformers, a collector substation, and other associated equipment to interconnect with the existing and adjacent Sacramento Municipal Utility District (SMUD) Cordova Substation (point of interconnection). The batteries will be installed either in containers or in purpose-built enclosures. The containers or enclosures will have battery storage racks, with relay and communications systems for automated monitoring and managing of the batteries to ensure performance and safety. The project consists of an approximately 200-megawatt battery energy storage system (BESS).

A battery management system will be provided to control the charging/discharging of the batteries, along with temperature monitoring and control of the individual battery cell temperature with an integrated cooling system. Batteries operate with direct current (DC) electricity, which must be converted to alternating current (AC) for compatibility with the existing electric grid. Power inverters to convert between AC and DC, along with transformers to step up the voltage, will be included as part of the Project.

The Project will be operated remotely with no permanent on-site operations and maintenance personnel, and no occupied buildings, habitable structures, or parking. It is expected that between two to four staff members will visit

the site monthly and as needed for maintenance and monitoring. The site will be fully enclosed and will not be open to the public.

2 General Analysis and Methodology

The Project site is located within the Sacramento Valley Air Basin (SVAB) and is within the jurisdictional boundaries of the SMAQMD, which has jurisdiction over the City where the Project is located. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include volatile organic compounds (VOCs; sometimes referred to as reactive organic gases (ROGs)), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (coarse particulate matter, or PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or $PM_{2.5}$). ROGs and NO_x are important because they are precursors to ozone (O_3).

GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e). The CO_2e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons (MT) of CO_2e = (MT of a GHG) × (GWP of the GHG). The California Emissions Estimator Model (CalEEMod) assumes that the GWP for CH_4 is 25, which means that emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2, and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

2.1 Construction

Emissions from the construction phase of the proposed Project were estimated using the CalEEMod Version 2020.4.0 (CAPCOA 2021). For the purposes of modeling, it was assumed that construction of the proposed Project would commence in November 2022[1] and would last approximately 12 months, ending in October 2023. The

[1] The analysis assumes a construction start date of November 2022, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because

analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate):

- Site preparation – 1 month
- Grading – 2 months
- Substation installation – 5 months
- Battery/Container installation – 5 months

The majority of the phases listed above would occur concurrently and would not occur sequentially in isolation. The estimated construction duration was provided by the Project applicant. Detailed construction equipment modeling assumptions are provided in Attachment A, CalEEMod Outputs.

The construction equipment mix used for estimating the construction emissions of the proposed Project is based on information provided by the Project applicant and is shown in Table 1.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site preparation	20	2	0	Graders	1	10
				Rubber Tired Loaders	1	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
Grading	20	4	988	Graders	2	10
				Plate Compactors	2	10
				Rollers	2	10
				Rubber Tired Loaders	2	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
Substation installation	20	20	0	Aerial Lifts	2	10
				Air Compressors	1	10
				Bore/Drill Rigs	1	10
				Cranes	1	10
				Excavators	1	10
				Generator Sets	1	10
				Rollers	1	10

equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
				Rough Terrain Forklifts	1	10
				Rubber Tired Dozers	2	10
				Skid Steer Loaders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Trenchers	2	10
Battery/Container installation	20	20	4	Air Compressors	2	10
				Cranes	1	10
				Excavators	1	10
				Generator Sets	1	10
				Plate Compactors	1	10
				Rollers	1	10
				Rough Terrain Forklifts	1	10
				Skid Steer Loaders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Trenchers	1	10

Note: See Attachment A for details.

For the analysis, it was assumed that heavy construction equipment would be operating 5 days per week (22 days per month), up to 10 hours per day during Project construction. Construction worker and vendor (equipment/material deliveries, water trucks, etc.) trips were based on CalEEMod default assumptions and rounded up to the nearest whole number to account for whole round trips.

Project grading would be balanced onsite. It is anticipated that earth movement grading would be primarily, if not completely, accomplished using off-road equipment.

Construction of Project components would be subject to SMAQMD Rule 403, which requires that proposed construction include steps to restrict visible emissions of fugitive dust beyond the property line (SMAQMD 1977). Compliance with SMAQMD Rule 403 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during proposed grading and construction activities.

A detailed depiction of the construction schedule—including information regarding phases and equipment used during each phase—is included in Attachment A to this technical memorandum. The information contained in Attachment A was used as CalEEMod model inputs.

2.2 Operation

Emissions from the operational phase of the proposed Project were estimated using CalEEMod. Operational year 2023 was assumed, as it would be the first year following completion of construction.

Area Sources

During operations and maintenance, one of the main sources of GHG emissions would be fugitive emissions from equipment containing SF_6 gas installed at the proposed switchyard. SF_6 has a GWP of 23,900 using CO_2 at a reference value of 1 (IPCC 2007). The switchyard would include six 138 kilovolt (kV) breakers that would contain SF_6 gas. It is estimated that the Project would maintain a total of 2,400 lbs of SF_6 gas at the substation. Although leakage is unlikely, for the purposes of the Project's emissions inventory, it was assumed that the breakers would have a maximum annual leak rate of 0.5% in accordance with the Institute of Electrical and Electronics Engineers (IEEE) PC37.122 - Standard for High Voltage Gas-Insulated Substations Rated Above 52 kV. Emissions from SF_6 gas are included as part of area source emissions.

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2021). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of non-residential buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site. The proposed Project would not include the use of natural gas on site during operation. The Project is anticipated to use electricity for on-site lighting and for the heating, ventilation, and air conditioning (HVAC).

Emissions were calculated by multiplying the energy use by the utility's carbon intensity (pounds of GHGs per megawatt-hour for electricity) for CO_2 and other GHGs. Annual electricity emissions were estimated in CalEEMod using the emissions factors for SMUD, which would be the energy source provider for the project.

Mobile Sources

Following the completion of construction activities, the proposed Project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the periodic maintenance activity of the project. It is anticipated that up to four workers would visit the site once per month to perform routine maintenance. CalEEMod default data, including trip characteristics and emissions factors, were used for the model inputs. Project-related traffic was assumed to include a mixture of worker vehicles in accordance with the associated use, as modeled within CalEEMod (50% light-duty autos, 25% light-duty truck type 1, and 25% light-duty truck type 2). Emission factors representing the vehicle mix and emissions for 2023 were used to estimate emissions associated with vehicular sources.

Off-Road Sources

The proposed Project would involve using a crane once every 5 years during routine maintenance to be able to lift and move the battery containers. CalEEMod default equipment size and load factors were assumed. It was assumed that the crane would operate for 8 hours, 1 day every 5 years.

Health Risk Assessment

As a precautionary measure, a health risk assessment (HRA) was performed to assess the impact of a battery cell malfunction, such as a runaway reaction or overcharge event, on sensitive receptors proximate to the Project site (outputs provided as Attachment B). This report includes an HRA associated with emissions from battery cell malfunction based on the methodologies prescribed in the Office of Environmental Health Hazard Assessment (OEHHA) document, Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments (OEHHA Guidelines) (OEHHA 2015) and the California Air Pollution Control Officers Association (CAPCOA) Facility Prioritization Guidelines (CAPCOA 2016). During normal operation, there would be no emissions from the battery systems associated with the proposed Project. The assessment is based on the prioritization method for acute impacts. The thresholds are based on the application of a number of conservative air dispersion modeling scenarios coupled with air pollutant toxicities as reported by OEHHA and the U.S. Environmental Protection Agency. The prioritization thresholds are such that a total score greater than or equal to 10 would be considered a high priority; a total score greater than or equal to 1 and less than 10 would be considered an intermediate priority; and a total score less than 1 would be a low priority. The final prioritization is determined by the highest prioritization received for any release scenario. The prioritization method is the initial and most conservative tool used by air districts in California (including SMAQMD) to determine public health impacts due to toxic air pollutants for purposes of the Air Toxics “Hot Spot” Act. The CAPCOA screening approach for health risks was used for the acute impact of toxic emissions (CAPCOA 2016). The prioritization score is calculated by estimating the maximum emission rate for each pollutant, dividing it by the acute non-cancer reference exposure level for the pollutant, and multiplying that by the proximity factor, normalization factor, and dispersion adjustment factor (CAPCOA 2016). The use of this tool is the first step in the toxic air pollutant screening level risk assessment process to determine whether a more refined assessment is required. The prioritization method is a direct impact risk assessment method, rather than a probabilistic/statistical method. The prioritization method relies on the emission rates of the various pollutants for a given facility, potency or toxicity factors (including adjustments for sensitive individuals such as seniors and children) for each pollutant identified, conservative air dispersion modeling assumptions, and the proximity of potential receptors to determine a facility’s score.

This analysis evaluated the potential impacts of a thermal runaway event where there was an elevated temperature situation due to a runaway reaction with combustion. Because the BESS would be enclosed in an essentially sealed cargo container, it is assumed that the emissions caused by these malfunction scenarios would remain within the cargo container until the container doors were opened by the fire department. Therefore, it is assumed that the release of pollutants to the atmosphere would occur within a relatively short time (i.e., 1 hour or less). The BESS would be equipped with monitoring and control systems that would prevent and/or control battery cell malfunctions.

The Project applicant has not committed to a specific battery vendor at the time of the preparation of this assessment and thus Tesla was assumed to be the supplier of the battery technology. The compounds and the associated mass emission rates used herein were determined by proprietary testing performed by Tesla. The tests performed by Tesla included a number of conservative factors, including allowing both the non-combustion and combustion malfunction events to continue without control for over an hour and using an external ignition source to force combustion when the malfunction itself did not result in sufficient heat to cause a fire. The tests performed by Tesla showed that, in the event of a single cell undergoing thermal runaway there was no propagation to surrounding cells. In addition, the tests showed that when an entire module (a module is comprised of 12,636 cells) was ignited and the fire suppression system discharged there was no propagation to surrounding modules. The test results are considered representative of the proposed battery chemistry type for the project and would be applicable to other battery suppliers. While the entire BESS will be comprised of a total of approximately 17 modules, because the malfunction events discussed above are extremely unlikely to occur in the first place and, if such an event does occur, it will only likely occur within a single battery cell, the analysis assuming combustion of 10% of cells in a module remains extremely conservative.

Project emissions to the air would consist of combustion and vent products from the burning and/or venting of the battery cells due to a battery cell malfunction. Inhalation is the main pathway by which air pollutants would potentially cause public health impacts. Potential human health impacts associated with the proposed Project stem from human exposure to air emissions from the battery cell malfunction scenario discussed above. The expected pollutants emitted under these scenarios are listed in Table 2, with more detailed calculations provided in Attachment B. Also included in Attachment B is a copy of the material safety data sheet provided by the Tesla. Although the assessment includes emissions in Table 2, only pollutants that have acute reference exposure levels contribute to the risk prioritization score.

Table 2. Chemical Constituents Emitted

Pollutants	Chemical Names
CH_4	Methane
H_2	Hydrogen
C_2H_4	Ethylene
CO_2	Carbon dioxide
CO	Carbon monoxide
C_3H_6	Propylene
C_2H_6	Ethane
C_3H_6	Propene
C_3H_8	Propane
O_2	Oxygen
N_2	Nitrogen

Table 2. Chemical Constituents Emitted

Pollutants	Chemical Names
HF	Hydrogen fluoride
HCL	Hydrochloric acid
HCN	Hydrogen cyanide
Styrene	Styrene
Toluene	Toluene

Source: Tesla 2019.

According to SMAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest off-site sensitive receptors to the Project site include residences approximately 280 feet to the west of the Project site.

3 Air Quality Assessment

3.1 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to air quality are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of this air quality analysis, a significant impact would occur if the Project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to determine whether a proposed project would have a significant impact on air quality.

SMAQMD has established significance thresholds for project construction and operational emissions within the City. The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines and the SMAQMD thresholds. A significant impact related to air quality would occur if the project would:

- Conflict with or obstruct implementation of an applicable air quality plan;
- Result in short-term (construction) emissions of NO_x above 85 pounds per day, or PM_{10} above 80 pounds per day or $PM_{2.5}$ above 82 pounds per day with all feasible best available control technology (BACT) or best management practices (BMPs) implemented;

- Result in long-term (operational) emissions of NO_x or ROG above 65 pounds per day, or PM_{10} above 80 pounds per day or $PM_{2.5}$ above 82 pounds per day with all feasible best available control technology (BACT) or best management practices (BMPs) implemented;
- Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors);
- Create objectionable odors affecting a substantial number of people; or
- Create a lifetime cancer risk from toxic air contaminant (TAC) exposures exceeding 10 in 1 million for stationary sources, or substantially increase the lifetime cancer risk as a result of increased exposure to TACs from mobile sources.

3.2 Impact Analysis

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

The project site is under the jurisdiction of the SMAQMD within the SVAB. The SVAB is designated nonattainment for both national and California ozone standards. Accordingly, the SMAQMD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal O_3 standards. As such, the SMAQMD, along with the other air districts in the region, prepared the Sacramento *Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 SIP Revisions)*. The Ozone Attainment Plan addresses attainment of the federal 8-hour O_3 standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O_3 standards (SMAQMD 2016). These are the latest plans adopted by the SMAQMD in coordination with the air quality management districts and air pollution control districts of El Dorado, Sacramento, Solano, Sutter, and Yolo counties, and they incorporate land use assumptions and travel demand modeling provided by Sacramento Area Council of Governments (SACOG). The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with federal and state air quality standards. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of the air quality plan if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the air quality management plan.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) were developed by SACOG for its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2019) based on general plans for cities and counties in the SVAB. The air quality management plans rely on the land use and population projections provided in the MTP/SCS, which is generally consistent with the local plans; therefore, the air quality management plans are generally consistent with local government plans.

The proposed project includes construction of a BESS and will not have employees. Therefore, the project would not generate population growth, housing, or employment that was not accounted for in regional plans such as SACOG's MTP/SCS, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable air quality management plan would be **less than significant.**

3.2.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SMAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a proposed project's individual emissions would have a cumulatively significant impact on air quality.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROG off-gassing) and off-site sources (i.e., on-road vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

CalEEMod Version 2020.4.0 was used to estimate emissions from construction of the proposed Project. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of ROGs, NO_x, CO, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The Project would be required to comply with SMAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The CalEEMod default assumptions were used for estimating fugitive dust emissions from grading on site. Table 3 presents the estimated maximum daily construction emissions generated during construction of the proposed Project. Details of the emission calculations are provided in Attachment A.

Table 3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2022	3.06	36.73	24.05	0.07	2.54	1.44
2023	5.02	50.08	44.27	0.09	2.73	2.29
Maximum	*5.02*	*50.08*	*44.27*	*0.09*	*2.73*	*2.29*
SMAQMD Threshold	*N/A*	*85*	*N/A*	*N/A*	*80*	*82*
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.
Emissions include compliance with SMAQMD Rules 403.
See Attachment A for complete results.

As shown in Table 3, the Project construction would not exceed SMAQMD's daily thresholds. Therefore, construction impacts associated with criteria air pollutant emissions would be less than significant.

Operational Emissions

Emissions from the operational phase of the proposed Project were estimated using CalEEMod. Operational year 2023 was assumed following completion of construction. Table 4 presents the estimated emissions during operation.

Table 4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	1.04	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.02	0.24	0.00	0.07	0.02
Off-road	0.35	3.82	1.83	0.01	0.15	0.15
Total	**1.41**	**3.84**	**2.07**	**0.01**	**0.22**	**0.17**
SMAQMD Threshold	*65*	*65*	*N/A*	*N/A*	*80*	*82*
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Attachment A for complete results. Totals may not sum precisely due to rounding.

As shown in Table 4, ROG, NO_x, PM_{10}, and $PM_{2.5}$ emissions would be below the SMAQMD threshold of significance. The SMAQMD CEQA guidance states that operational emissions that generate above zero pounds per day of PM_{10} and $PM_{2.5}$ would result in a significant impact, unless all feasible BACT and BMPs are implemented (SMAQMD 2009). The proposed project would comply with BMP measures in its final design to reduce operational PM_{10} and $PM_{2.5}$ emissions including compliance with the California Building Energy Efficiency Standards and Green Building Code (Title 24, Parts 6 and 11). Because the project would not exceed the SMAQMD thresholds during operation, the project would result in a less than significant impact.

Health Impacts of Criteria Air Pollutants

Construction and operational emissions of the project would not exceed the SMAQMD thresholds for any criteria air pollutants, including ROG, NO_x, PM_{10}, and $PM_{2.5}$. Refer to section 3.3.3 for an in-depth discussion regarding potential health effects from emissions resulting from the project.

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019). ROG and NO_x are precursors to O_3, for which the SVAB is designated as nonattainment with respect to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. However, because the project would

not exceed the SMAQMD thresholds for ROG or NO_x, the project would not contribute to health effects associated with O_3.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM_{10} or $PM_{2.5}$, would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, and would not obstruct the SVAB from coming into attainment for these pollutants. Therefore, the project is not anticipated to result in health effects associated with PM_{10} or $PM_{2.5}$.

In summary, construction and operation of the project would not result in exceedances of the SMAQMD significance thresholds for criteria pollutants, and potential health effects associated with criteria air pollutants would be less than significant.

3.3.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Title 40 of the Code of Federal Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (Hot-Spot Analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CFR 93.123). Localized concentrations of CO from exhaust would be a concern on high-volume roadways where vertical and/or horizontal mixing is substantially limited, such as tunnels or below grade highways. There are no high-volume roadways in the project's vicinity with limited mixing that would be affected by the project generated traffic during construction. While Project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 12 months and would not require a project-level construction hotspot analysis.

Mobile source impacts occur on two scales of motion. Regionally, project-related travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SVAB. Locally, project-generated traffic would be added to the City's roadway system near the Project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SVAB is steadily decreasing.

Therefore, it is concluded that a quantitative CO hotspots analysis is not required. The construction-related traffic is not anticipated to create a CO hotspot as emissions would be dispersed rapidly through the entrainment of ambient air, which dilutes the concentration of the emissions as they are carried away from the source by winds and would not be concentrated. During operation, the Project is expected to generate vehicle trips for maintenance personnel once a month and therefore no CO hotspots would be created.

As such, impacts to sensitive receptors with regard to potential CO hotspots resulting from the Project's contribution to cumulative traffic-related air quality impacts would be less than significant.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the State Legislature in 1987 to address public concern over the release of TACs into the atmosphere.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Project construction would result in emissions of diesel particulate from heavy construction equipment and trucks accessing the site. Diesel particulate is characterized as a TAC by the State of California. OEHHA has identified carcinogenic and chronic non-carcinogenic effects from long-term exposure, but has not identified health effects due to short-term exposure to diesel exhaust. According to OEHHA, HRAs, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the Project. Thus, the duration of the proposed construction activities would constitute only a small percentage of the total 30-year exposure period. Due to this relatively short period of exposure (12 months) and minimal particulate emissions on site, TACs generated by the proposed Project would not result in concentrations causing significant health risks. Furthermore, according to the closest meteorological station to the project site at the Sacramento Executive Airport, the predominant wind direction is blowing from the southwest which would blow away from the residences to the north and west of the project site. Overall, the Project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the Project site, and impacts would be less than significant. Per CARB's air toxic control measure, heavy-duty diesel vehicles will be limited to idling for 5 minutes while onsite.

Additionally, the health risk public-notification thresholds adopted by the SMAQMD Board is 10 excess cancer cases in a million for cancer risk and a hazard index of more than one (1.0) for non-cancer risk. The hazard index of more than 1.0 means that predicted levels of a toxic pollutant are greater than the reference exposure level, which is

considered the level below which adverse health effects are not expected. Examples of projects that emit toxic pollutants over long-term operations include oil and gas processing, gasoline dispensing, dry cleaning, electronic and parts manufacturing, medical equipment sterilization, freeways, and rail yards. The Project would not emit TACs during normal operations and toxic contaminants are not anticipated to be present at the Project site; as such, a formal HRA will not be required for the Project. As discussed above, the Project would bring a crane onsite to move containers around once every few years. Accordingly, the Project is not anticipated to result in emissions that would exceed the SMAQMD Board-adopted health risk notification thresholds.

However, as discussed in Section 2.2, Operation, of this letter report, and as a precautionary measure, an HRA was performed to assess the impact of a battery cell malfunction, such as a runaway reaction or overcharge event, on sensitive receptors proximate to the Project site (provided as Attachment B). This analysis evaluated the potential impacts of a thermal runaway event where there was an elevated temperature situation due to a runaway reaction with combustion. Although the entire BESS would be composed of many modules, the malfunction events discussed above are unlikely to occur and, if such an event does occur, it would likely occur only within a single battery cell or a limited number of battery cells. The analysis conservatively evaluated the thermal runaway event taking place in a single cell and a module. The results of the HRA are shown in Table 5.

Table 5. Health Risk Assessment Results

Toxic Air Contaminant	Prioritization Score	
	Cell	Module
Carbon monoxide	3.74E-04	4.72E-01
Hydrogen fluoride	3.72E-05	4.70E-02
Hydrochloric acid	1.56E-05	1.97E-02
Hydrogen cyanide	1.17E-04	1.47E-01
Methanol	2.72E-08	3.43E-05
Styrene	4.41E-09	5.57E-06
Toluene	7.78E-06	9.83E-03
Total	**5.51E-04**	**6.96E-01**
Significance Threshold	*1.0*	*1.0*
Exceeds Threshold?	**No**	**No**

Source: Attachment B.

As shown in Table 5, the results of the HRA show that a thermal runaway of a cell or module would be considered a low-priority risk and thus would result in a less than significant impact.

Naturally-Occurring Asbestos

According to the Special Report 192: Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California, prepared by the Department of Conservation, the project site is located within an area categorized as least likely to contain naturally-occurring asbestos (NOA) (Sacramento County 2006). The geology in the project site is known to consist of sedimentary rocks, whose deposits are generally less likely to contain NOA due to the composition and lack of metamorphism. Faults and serpentinite outcroppings are not known to be in the project area. Consequently, NOA is not anticipated to be present on the project site.

Criteria Air Pollutants

Recent rulings from the California Supreme Court (including the Sierra Club v. County of Fresno (2018) 6 Cal. 5th 502 case regarding the proposed Friant Ranch Project) have underscored the need for analysis of potential health impacts resulting from the emission of criteria pollutants during operations of proposed projects. Although analysis of project-level health risks related to the emission of CO and TACs has long been practiced under CEQA, the analysis of health impacts due to individual projects resulting from emissions of criteria pollutants is a relatively new field. SMAQMD released the Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District (Guidance) for the analysis of criteria emissions in areas within the District's jurisdiction (SMAQMD 2020). The Guidance represents SMAQMD's effort to develop a methodology that provides a consistent, reliable, and meaningful analysis in response to the Supreme Court's direction on correlating health impacts to a project's emissions.

The Guidance was prepared by conducting regional photochemical modeling, and relies on the USEPA's Benefits Mapping and Analysis Program (BenMAP) to assess health impacts from ozone and $PM_{2.5}$. SMAQMD has prepared two tools that are intended for use in analyzing health risks from criteria pollutants. Small projects with criteria pollutant emissions close to or below SMAQMD's adopted thresholds of significance may use the Minor Project Health Effect Screening Tool, while larger projects with emissions between two and six times greater than SMAQMD's adopted thresholds may use the Strategic Area Project Health Screening Tool. Considering the proposed project would result in emissions lower than the SMAQMD's thresholds of significance, the project would qualify for use of the Minor Project Health Effects Screening Tool. It is important to note, however, that the Minor Project Health Effects Screening Tool applies the assumption that all small projects result in emissions of criteria pollutants equal to the SMAQMD thresholds of significance.

As shown in Table 4, the project would result in operational emissions below the SMAQMD thresholds of significance and, thus, the health impacts calculated for the project using in the Minor Project Health Effects Screening Tool are highly conservative. The project's actual health impacts associated with criteria pollutant emissions would be expected to be much less than what is presented herein based on the aforementioned SMAQMD tool. The SMAQMD tool assumes the project will emit over 482 times more $PM_{2.5}$ than it actually will (0.17 lb/day vs. the threshold of 82 lb/day), over 46 times more ROG (1.41 lb/day vs the threshold of 65 lb/day), and nearly 17 times more NO_X (3.84 lb/day vs the threshold of 65 lb/day). Results from the Minor Project Health Effects Screening Tool are shown in Table 6 below. As shown in the table, according to the Minor Project Health Effects Screening Tool, which is based on the highly conservative assumption that the project would emit criteria pollutants at levels equal to the SMAQMD thresholds of significance, the proposed project could result in 1.6 premature deaths per year due to the project's $PM_{2.5}$ emissions and 0.03 premature deaths per year due to the project's ozone emissions.

Such numbers represent a very small increase over the background incidence of premature deaths due to $PM_{2.5}$ and ozone concentrations (0.0035 percent and 0.0001 percent, respectively). In addition, according to the Minor Project Health Effects Screening Tool, $PM_{2.5}$ emissions from the proposed project could result in 0.65 asthma-related emergency room visits, and ozone emissions from the proposed project could result in 0.52 asthma-related emergency room visits. Such numbers represent a minute increase over the background level of asthma-related emergency room visits (0.0036 percent and 0.0058 percent, respectively). As noted above, because the proposed project's emissions would be substantially below the SMAQMD thresholds of significance, the proposed project's actual health impacts associated with criteria pollutant emissions would be much lower than what is presented in Table 6.

Furthermore, the SMAQMD criteria pollutant thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS. The thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS and, therefore, would not adversely affect public health.

Considering that implementation of the proposed project would not result in emissions of criteria pollutants that would exceed the SMAQMD standards, the proposed project would not inhibit attainment of regional NAAQS and CAAQS and would not result in adverse health impacts related to the emission of criteria pollutants.

Table 6. Health Effects from the Proposed Project

$PM_{2.5}$ Health Endpoint	Age Range[1]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)		
Emergency Room Visits, Asthma	0 - 99	0.65	0.0036%	18419
Hospital Admissions, Asthma	0 - 64	0.043	0.0023%	1846
Hospital Admissions, All Respiratory	65 - 99	0.24	0.0012%	19644
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.13	0.00055%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.000052	0.0014%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0049	0.0016%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.013	0.0017%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.021	0.0017%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.084	0.0017%	5052
Mortality, All Cause	30 - 99	1.6	0.0035%	44766
Ozone Health Endpoint	**Age Range[1]**	**Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]**	**Percent of Background Health Incidences Across the 5-Air-District Region[3]**	**Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]**
		(Mean)		
Hospital Admissions, All Respiratory	65 - 99	0.049	0.00025%	19644
Emergency Room Visits, Asthma	0 - 17	0.19	0.0032%	5859
Emergency Room Visits, Asthma	18 - 99	0.33	0.0026%	12560
Mortality, Non-Accidental	0 - 99	0.033	0.00011%	30386

Source: Sac Metro Air District Minor Project Health Effects Tool, version 2, published June 2020.

Notes: [1] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
[2] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
[3] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
[4] The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

The results of the Minor Project Health Effects Screening Tool have been presented for informational purposes only. Overall, because the project would be relatively small compared to the regional growth and development that drives health impacts from criteria pollutants, and the anticipated air quality emissions would fall below all applicable thresholds of significance, potential health impacts related to criteria air pollutants would be less than significant.

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

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speed and direction; and the sensitivity of receiving location all contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SMAQMD 2009). The proposed Project would not create any new sources of odor during operation. Therefore, Project operations would result in an odor impact that would be less than significant.

4 Greenhouse Gas Emissions Assessment

4.1 Thresholds of Significance

In April 2020, SMAQMD adopted an update to their land development project operational GHG threshold, which requires a project to demonstrate consistency with CARB's 2017 Climate Change Scoping Plan. The Sacramento County Board of Supervisors adopted the updated GHG threshold in December 2020. SMAQMD's technical support document, "Greenhouse Gas Thresholds for Sacramento County", identifies operational measures that should be applied to a project to demonstrate consistency. All projects must implement Tier 1 BMPs to demonstrate

consistency with the Climate Change Scoping Plan. After implementation of Tier 1 BMPs, project emissions are compared to the operational land use screening levels table (equivalent to 1,100 metric tons (MT) of CO_2e per year). In addition, as set forth in Chapter 6 of SMAQMD's CEQA Guide, "the District has determined that projects below the GHG Operational Screening Levels would not exceed the District's construction GHG threshold of significance if the project meets the parameters in Chapter 3, Section 3.3.1 for the construction NOx screening level." Otherwise, SMAQMD recommends a construction significance threshold of 1,100 MT CO_2e per year.

Chapter 3, Section 3.3.1 of the SMAQMD CEQA Guide provides that the NOx screening level is a project of 35 acres or less, provided that the project does not include any of the following:

- Include buildings more than 4 stories tall;
- Include demolition activities;
- Include major trenching activities;
- Have a construction schedule that is unusually compact, fast-paced, or involves more than 2 phases (i.e., grading, paving, building construction, and architectural coatings) occurring simultaneously;
- Involve cut-and-fill operations (moving earth with haul trucks and/or flattening or terracing hills); and
- Require import or export of soil materials that will require a considerable amount of haul truck activity.

If a project's operational emissions are less than or equal to 1,100 MT CO_2e per year after implementation of Tier 1 BMPs, the project will result in a less than cumulatively considerable contribution and has no further action. Tier 1 Best Management Practices include:

- BMP 1 – no natural gas: projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 –EV Ready: projects shall meet the current CALGreen Tier 2 standards.
    - EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)
    - EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

Projects that implement BMP 1 and BMP 2 can use the screening criteria for operation emissions. Projects that do not exceed 1,100 MT CO_2e are then screened out of further requirements. For projects that exceed 1,100 MT CO_2e per year, then compliance with BMP 3 is also required:

- BMP 3 – Reduce applicable project vehicle miles traveled (VMT) by 15% residential and 15% worker relative to Sacramento County targets, and no net increase in retail VMT. In areas with above-average existing VMT, commit to provide electrical capacity for 100% electric vehicles.

Therefore, this assessment uses SMAQMD's GHG construction and operational emissions thresholds of 1,100 MT CO_2e per year (separately) to evaluate whether the project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

4.2 Impact Analysis

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

Construction Emissions

Construction of the proposed Project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The total construction GHG emissions were calculated and then compared to the SMAQMD operational and construction GHG significance thresholds of 1,100 MT CO_2e per year. Also, as discussed in Section 4.1, the project is compared to the SMAQMD NOx screening levels.

The project would exceed the NOx screening level discussed in Section 4.1 as it would include trenching activities, cut-and-fill grading operations, and import or export of soil materials. As such, in accordance with the SMAQMD guidelines, emissions must be quantified and compared to the SMAQMD thresholds.

CalEEMod was used to estimate GHG emissions during construction. Construction of the project is anticipated to last up to 12 months. On-site sources of GHG emissions include off-road equipment and off-site sources include on-road vehicles (haul and vendor trucks and worker vehicles). Table 7 presents construction GHG emissions for the project from on-site and off-site emission sources.

Table 7. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2022	100.31	0.03	0.00	101.82
2023	713.34	0.17	0.01	720.53
			Total	**822.35**
			SMAQMD GHG Threshold	*1,100*
			Threshold Exceeded?	No

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Attachment A for complete results.

As shown in Table 7, the estimated total GHG emissions during construction of the proposed Project would be approximately 822 MT CO_2e. Construction GHG emissions are a one-time release and are typically considered separate from operational emissions, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. As previously discussed, the SMAQMD identifies a GHG emission threshold for construction-related emissions of 1,100 MT CO_2e per year. Table 7 indicates that the project would not exceed the SMAQMD GHG threshold.

Therefore, the project's construction-related GHG emissions would represent a less than significant impact.

Operational Emissions

CalEEMod was used to estimate potential project-generated operational GHG emissions from area sources, energy sources (electricity), mobile sources, off-road equipment, and waste, and water/wastewater. Emissions from each category are discussed in the following text with respect to the proposed project. For additional details, see Section 2.2 for a discussion of operational emission calculation methodology and assumptions. Operational year 2023 was assumed following completion of construction. Table 8 shows the estimated operational and amortized construction emissions from the project.

Table 8. Estimated Annual Operation GHG Emissions

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	0.00	0.00	0.00	130.09
Energy	112.73	0.01	0.00	113.37
Mobile	1.34	0.00	0.00	1.36
Off-road	0.25	0.00	0.00	0.26
			Total	**114.98**
			SMAQMD Threshold	*1,100*
			Threshold Exceeded?	No

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District.
See Attachment A for complete results.

As shown in Table 8, the estimated total GHG emissions during operation of the Project would be approximately 115 MT CO_2e per year. The Project would not exceed the SMAQMD threshold of 1,100 MT CO_2e per year. Projects below this significance criterion have a minimal contribution to global emissions and are considered to have less than significant impacts. Therefore, operational impacts associated with directly or indirectly generating a significant quantity of GHG emissions would be less than significant.

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

SMAQMD

The project is a BESS that would generate few mobile source trips as discussed in Section 2.2. As the project does not include natural gas and would not have a parking lot, it would be consistent with the SMAQMD's Tier 1 and Tier 2 Best Management Practices. As the project does not exceed the SMAQMD 1,100 MT CO_2e per year threshold and implements the Tier 1 and Tier 2 Best Management Practices, it would not conflict with the SMAQMD GHG projections for meeting the state's GHG reduction goals. Therefore, impacts would be considered less than significant.

SACOG MTP/SCS

The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the Sacramento region pro-actively links land use, air quality, and transportation needs. The MTP/SCS is federally required to be updated every four years. The SACOG board adopted the 2020 MTP/SCS and accompanying documents at a special board meeting on November 18, 2019 (SACOG 2019). The MTP/SCS developed four policy priorities for the region and include:

1. Build vibrant places for today's and tomorrows residents;
2. Foster the next generation of mobility solutions;
3. Modernize the way we pay for transportation infrastructure; and
4. Build and maintain a safe, reliable, and multimodal transportation system.

The proposed project would not conflict with the policy priorities and goals of the MTP/SCS. As discussed in Section 3.2.1, the project is not growth inducing and would not exceed the growth projections of the MTP/SCS. The project, as an energy storage project, by design would mitigate renewable energy intermittency, facilitating the retirement of fossil fuel vehicles and the transition to electric vehicles. Therefore, the project would not conflict with the MTP/SCS and impacts would be less than significant.

Consistency with the California Air Resources Board Scoping Plan

The California Air Resources Board (CARB) Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHG emissions. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[2] It does provide recommendations for lead agencies to develop evidence-based numeric thresholds consistent with the Scoping

[2] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

Plan, the state's long-term GHG goals, and climate change science. Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 9 highlights measures that have been, or will be, developed under the Scoping Plan and presents the proposed project's consistency with Scoping Plan measures. The project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the Project.

Table 9. Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	*Consistent.* The project's employees would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	T-2	*Consistent.* Motor vehicles driven by the project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	*Not applicable.* The project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	*Not applicable.* The project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements	T-6	*Not applicable.* The project would not prevent CARB from implementing this measure.

Table 9. Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction		
Heavy-Duty Vehicle GHG Emission Reduction ▪ Tractor-Trailer GHG Regulation ▪ Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	*Not applicable.* The project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	*Not applicable.* The project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	*Not applicable.* The project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	*Consistent.* The project would be constructed in accordance with CALGreen and Title 24 building standards.
Energy Efficiency (Natural Gas)	CR-1	*Consistent.* The project would be constructed in accordance with CALGreen and Title 24 building standards.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	*Consistent.* The project would support the development of renewable energy through energy storage.
Renewables Portfolio Standard (50% by 2050)	N/A	*Consistent.* The project would support the development of renewable energy through energy storage.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	*Not applicable.* The project would not prevent CARB from implementing this measure.
Water Sector		
Water Use Efficiency	W-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Water Recycling	W-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	*Not applicable.* The project would not prevent CARB from implementing this measure.

Table 9. Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Renewable Energy Production	W-5	*Not applicable.* The project would not prevent CARB from implementing this measure.
Green Buildings		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	*Not applicable.* The project would not prevent CARB from implementing this measure.
Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks	I-5	*Not applicable.* The project would not prevent CARB from implementing this measure.
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	*Consistent.* The project would include recycling during both construction and operation.
Increase Production and Markets for Compost and Other Organics	RW-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	*Not applicable.* The project would not prevent CARB from implementing this measure.

Table 9. Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Extended Producer Responsibility	RW-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Forests Sector		
Sustainable Forest Target	F-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
High GWP Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	*Not applicable.* The project would not prevent CARB from implementing this measure.
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	*Not applicable.* The project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	*Not applicable.* The project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	*Not applicable.* The project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	*Not applicable.* The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	*Not applicable.* The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	*Not applicable.* The project would not prevent CARB from implementing this measure.
SF_6 Leak Reduction Gas Insulated Switchgear	H-6	*Consistent.* The project would use SF_6 in its switchgear equipment and limit leaks in accordance with CARB regulations.
40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
50% Reduction in Black Carbon Emissions	N/A	*Not applicable.* The project would not prevent CARB from implementing this measure.
Agriculture Sector		
Methane Capture at Large Dairies	A-1	*Not applicable.* The project would not prevent CARB from implementing this measure.

Source: CARB 2008, 2017.
Notes: GHG = greenhouse gas; CARB = California Air Resources Board; N/A = not applicable; VMT = vehicle miles traveled; CALGreen = California Green Building Standards; SB = Senate Bill; GWP = global warming potential; SF_6 = sulfur hexafluoride.

Based on the analysis in Table 9, the Project would be consistent with the applicable strategies and measures in the Scoping Plan.

The Project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Executive Order (EO) S-03-05 and SB 32. EO S-03-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory toward meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

To begin, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-03-05. This is confirmed in the Second Update (CARB 2017), which states:

> The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

The Project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the Project would not exceed SMAQMD's screening threshold of 1,100 MT CO_2e per year. Because the Project would not exceed the threshold, this analysis provides support for the conclusion that the Project would not impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

As discussed previously, the Project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. In addition, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the Project would be speculative and cannot be identified at this time. The Project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB

32 and EO S-03-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-03-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to allow the state to continue on its trajectory toward meeting these future GHG targets. Based on the considerations previously outlined, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. Therefore, the Project's impact associated with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

5 Conclusions

Criteria air pollutant emissions generated during construction and operation of the proposed Project would not exceed SMAQMD's significance thresholds or result in a cumulatively considerable net increase in emissions. Similarly, the project would not expose sensitive receptors to substantial pollutant concentrations or create a CO hotspot. The HRA prepared for the Project showed that the Project would be considered low risk; therefore, the Project would result in a less than significant impact.

Estimated total GHG emissions generated during operation, including amortized construction emissions, would be below SMAQMD's threshold of 1,100 MT CO_2e per year. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, as there are currently no mandatory GHG regulations or finalized agency guidelines that would apply to implementation of this Project. Accordingly, potential cumulative GHG impacts would be less than significant.

Overall, the Project would not result in significant impacts to air quality or GHG emissions.

Sincerely,

Adam Poll, QEP, LEED AP BD+C
Senior Air Quality Specialist

Cc: *Keith Carwana, Dudek*
Att: *A – CalEEMod Emissions Outputs*
B – Health Risk Assessment Outputs

6 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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Attachment A

CalEEMod Emissions Outputs

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sunridge Energy Storage Project

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	43.50	1000sqft	1.00	43,500.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2023
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Surrogate land use for battery storage containers.

Construction Phase - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Trips and VMT - Based on project description.

Grading - CalEEMod defaults.

Vehicle Trips - Up to 4 workers visit the site monthly for maintenance.

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - CalEEMod defaults. No natural gas.

Water And Wastewater - No water use.

Solid Waste - No solid waste.

Construction Off-road Equipment Mitigation - In accordance with SMAQMD Rule 403.

Operational Off-Road Equipment - Use of crane to move containers.

Fleet Mix - Worker vehicle mix.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	1.00	22.00
tblEnergyUse	NT24NG	0.63	0.00
tblEnergyUse	T24NG	0.82	0.00
tblFleetMix	HHD	9.3060e-003	0.00
tblFleetMix	LDA	0.54	0.50
tblFleetMix	LDT1	0.06	0.25
tblFleetMix	LDT2	0.18	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0930e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.5070e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4200e-004	0.00
tblFleetMix	SBUS	1.0060e-003	0.00
tblFleetMix	UBUS	5.4800e-004	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	40.89	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	988.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	30.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblVehicleTrips	ST_TR	2.12	0.18

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	10,059,375.00	0.00

2.0 Emissions Summary

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0506	0.5906	0.4156	1.1200e-003	0.0460	0.0214	0.0674	6.5200e-003	0.0197	0.0262	0.0000	100.3130	100.3130	0.0261	2.8600e-003	101.8182
2023	0.4126	4.0784	3.9149	8.0800e-003	0.0725	0.1884	0.2610	0.0151	0.1761	0.1912	0.0000	713.3371	713.3371	0.1702	9.8800e-003	720.5351
Maximum	**0.4126**	**4.0784**	**3.9149**	**8.0800e-003**	**0.0725**	**0.1884**	**0.2610**	**0.0151**	**0.1761**	**0.1912**	**0.0000**	**713.3371**	**713.3371**	**0.1702**	**9.8800e-003**	**720.5351**

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					
2022	0.0506	0.5906	0.4156	1.1200e-003	0.0259	0.0214	0.0473	4.3500e-003	0.0197	0.0241	0.0000	100.3129	100.3129	0.0261	2.8600e-003	101.8181
2023	0.4126	4.0784	3.9149	8.0800e-003	0.0565	0.1884	0.2449	0.0133	0.1761	0.1894	0.0000	713.3363	713.3363	0.1702	9.8800e-003	720.5343
Maximum	**0.4126**	**4.0784**	**3.9149**	**8.0800e-003**	**0.0565**	**0.1884**	**0.2449**	**0.0133**	**0.1761**	**0.1894**	**0.0000**	**713.3363**	**713.3363**	**0.1702**	**9.8800e-003**	**720.5343**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.46**	**0.00**	**10.99**	**18.11**	**0.00**	**1.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-1-2022**	**1-31-2023**	1.0349	1.0349
2	**2-1-2023**	**4-30-2023**	1.7503	1.7503
3	**5-1-2023**	**7-31-2023**	1.3723	1.3723
4	**8-1-2023**	**9-30-2023**	0.6454	0.6454
		Highest	1.7503	1.7503

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	0.1901	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	112.7319	112.7319	0.0104	1.2600e-003	113.3670
Mobile	3.6000e-004	4.0000e-004	5.2300e-003	1.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.6000e-004	0.0000	1.3445	1.3445	4.0000e-005	4.0000e-005	1.3566
Offroad	1.8000e-004	1.9100e-003	9.2000e-004	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2535	0.2535	8.0000e-005	0.0000	0.2555
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	**0.1906**	**2.3200e-003**	**6.7100e-003**	**1.0000e-005**	**1.7200e-003**	**9.0000e-005**	**1.8100e-003**	**4.6000e-004**	**8.0000e-005**	**5.3000e-004**	**0.0000**	**114.3309**	**114.3309**	**0.0105**	**1.3000e-003**	**114.9803**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1901	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	112.7319	112.7319	0.0104	1.2600e-003	113.3670
Mobile	3.6000e-004	4.0000e-004	5.2300e-003	1.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.6000e-004	0.0000	1.3445	1.3445	4.0000e-005	4.0000e-005	1.3566
Offroad	1.8000e-004	1.9100e-003	9.2000e-004	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2535	0.2535	8.0000e-005	0.0000	0.2555
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	**0.1906**	**2.3200e-003**	**6.7100e-003**	**1.0000e-005**	**1.7200e-003**	**9.0000e-005**	**1.8100e-003**	**4.6000e-004**	**8.0000e-005**	**5.3000e-004**	**0.0000**	**114.3309**	**114.3309**	**0.0105**	**1.3000e-003**	**114.9803**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Battery/Container Installation	Building Construction	6/14/2023	10/31/2023	5	100	
2	Site Preparation	Site Preparation	11/1/2022	11/30/2022	5	22	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3	Grading	Grading	12/1/2022	1/31/2023	5	44	
4	Substation Installation	Building Construction	2/1/2023	6/13/2023	5	95	

Acres of Grading (Site Preparation Phase): 13.75

Acres of Grading (Grading Phase): 55

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	Graders	1	10.00	187	0.41
Site Preparation	Rubber Tired Loaders	1	10.00	203	0.36
Site Preparation	Skid Steer Loaders	2	10.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading	Graders	2	10.00	187	0.41
Grading	Plate Compactors	2	10.00	8	0.43
Grading	Rollers	2	10.00	80	0.38
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Rubber Tired Loaders	2	10.00	203	0.36
Grading	Skid Steer Loaders	2	10.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation Installation	Aerial Lifts	2	10.00	63	0.31
Substation Installation	Air Compressors	1	10.00	78	0.48
Substation Installation	Bore/Drill Rigs	1	10.00	221	0.50
Substation Installation	Cranes	1	10.00	231	0.29
Substation Installation	Excavators	1	10.00	158	0.38
Substation Installation	Forklifts	0	6.00	89	0.20
Substation Installation	Generator Sets	1	10.00	84	0.74

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Substation Installation	Rollers	1	10.00	80	0.38
Substation Installation	Rough Terrain Forklifts	1	10.00	100	0.40
Substation Installation	Rubber Tired Dozers	2	10.00	247	0.40
Substation Installation	Skid Steer Loaders	1	10.00	65	0.37
Substation Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Substation Installation	Trenchers	2	10.00	78	0.50
Battery/Container Installation	Air Compressors	2	10.00	78	0.48
Battery/Container Installation	Cranes	1	10.00	231	0.29
Battery/Container Installation	Excavators	1	10.00	158	0.38
Battery/Container Installation	Forklifts	0	6.00	89	0.20
Battery/Container Installation	Generator Sets	1	10.00	84	0.74
Battery/Container Installation	Plate Compactors	1	10.00	8	0.43
Battery/Container Installation	Rollers	1	10.00	80	0.38
Battery/Container Installation	Rough Terrain Forklifts	1	10.00	100	0.40
Battery/Container Installation	Skid Steer Loaders	1	10.00	65	0.37
Battery/Container Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Battery/Container Installation	Trenchers	1	10.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	20.00	2.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	20.00	4.00	988.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Substation Installation	15	20.00	20.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Battery/Container Installation	11	20.00	20.00	4.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Reduce Vehicle Speed on Unpaved Roads

3.2 Battery/Container Installation - 2023

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	0.1387	1.2780	1.5094	2.5400e-003		0.0641	0.0641		0.0606	0.0606	0.0000	220.2271	220.2271	0.0497	0.0000	221.4698
Total	**0.1387**	**1.2780**	**1.5094**	**2.5400e-003**		**0.0641**	**0.0641**		**0.0606**	**0.0606**	**0.0000**	**220.2271**	**220.2271**	**0.0497**	**0.0000**	**221.4698**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.2000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1243	0.1243	0.0000	2.0000e-005	0.1303
Vendor	1.5000e-003	0.0594	0.0163	2.4000e-004	7.6500e-003	3.4000e-004	7.9800e-003	2.2100e-003	3.2000e-004	2.5300e-003	0.0000	23.7630	23.7630	5.8000e-004	3.4800e-003	24.8148
Worker	3.6400e-003	2.3900e-003	0.0321	9.0000e-005	0.0110	6.0000e-005	0.0111	2.9300e-003	5.0000e-005	2.9800e-003	0.0000	8.6402	8.6402	2.2000e-004	2.2000e-004	8.7124
Total	**5.1500e-003**	**0.0622**	**0.0485**	**3.3000e-004**	**0.0187**	**4.0000e-004**	**0.0191**	**5.1500e-003**	**3.7000e-004**	**5.5200e-003**	**0.0000**	**32.5275**	**32.5275**	**8.0000e-004**	**3.7200e-003**	**33.6575**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Battery/Container Installation - 2023

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	0.1387	1.2780	1.5094	2.5400e-003		0.0641	0.0641		0.0606	0.0606	0.0000	220.2268	220.2268	0.0497	0.0000	221.4695
Total	**0.1387**	**1.2780**	**1.5094**	**2.5400e-003**		**0.0641**	**0.0641**		**0.0606**	**0.0606**	**0.0000**	**220.2268**	**220.2268**	**0.0497**	**0.0000**	**221.4695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.2000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1243	0.1243	0.0000	2.0000e-005	0.1303
Vendor	1.5000e-003	0.0594	0.0163	2.4000e-004	7.6500e-003	3.4000e-004	7.9800e-003	2.2100e-003	3.2000e-004	2.5300e-003	0.0000	23.7630	23.7630	5.8000e-004	3.4800e-003	24.8148
Worker	3.6400e-003	2.3900e-003	0.0321	9.0000e-005	0.0110	6.0000e-005	0.0111	2.9300e-003	5.0000e-005	2.9800e-003	0.0000	8.6402	8.6402	2.2000e-004	2.2000e-004	8.7124
Total	**5.1500e-003**	**0.0622**	**0.0485**	**3.3000e-004**	**0.0187**	**4.0000e-004**	**0.0191**	**5.1500e-003**	**3.7000e-004**	**5.5200e-003**	**0.0000**	**32.5275**	**32.5275**	**8.0000e-004**	**3.7200e-003**	**33.6575**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.2900e-003	0.0000	7.2900e-003	7.9000e-004	0.0000	7.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.1855	0.1444	3.2000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	28.0686	28.0686	9.0800e-003	0.0000	28.2955
Total	**0.0162**	**0.1855**	**0.1444**	**3.2000e-004**	**7.2900e-003**	**7.1200e-003**	**0.0144**	**7.9000e-004**	**6.5500e-003**	**7.3400e-003**	**0.0000**	**28.0686**	**28.0686**	**9.0800e-003**	**0.0000**	**28.2955**

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	6.0000e-005	1.5600e-003	4.2000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5411	0.5411	1.0000e-005	8.0000e-005	0.5651
Worker	8.6000e-004	6.0000e-004	7.6800e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4400e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9629	1.9629	5.0000e-005	5.0000e-005	1.9802
Total	**9.2000e-004**	**2.1600e-003**	**8.1000e-003**	**3.0000e-005**	**2.5900e-003**	**3.0000e-005**	**2.6200e-003**	**6.9000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.5041**	**2.5041**	**6.0000e-005**	**1.3000e-004**	**2.5453**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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					3.2800e-003	0.0000	3.2800e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0162	0.1855	0.1444	3.2000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	28.0685	28.0685	9.0800e-003	0.0000	28.2955
Total	**0.0162**	**0.1855**	**0.1444**	**3.2000e-004**	**3.2800e-003**	**7.1200e-003**	**0.0104**	**3.5000e-004**	**6.5500e-003**	**6.9000e-003**	**0.0000**	**28.0685**	**28.0685**	**9.0800e-003**	**0.0000**	**28.2955**

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	6.0000e-005	1.5600e-003	4.2000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5411	0.5411	1.0000e-005	8.0000e-005	0.5651
Worker	8.6000e-004	6.0000e-004	7.6800e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4400e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9629	1.9629	5.0000e-005	5.0000e-005	1.9802
Total	**9.2000e-004**	**2.1600e-003**	**8.1000e-003**	**3.0000e-005**	**2.5900e-003**	**3.0000e-005**	**2.6200e-003**	**6.9000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.5041**	**2.5041**	**6.0000e-005**	**1.3000e-004**	**2.5453**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0292	0.0000	0.0292	3.1500e-003	0.0000	3.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0315	0.3538	0.2461	5.8000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	50.8221	50.8221	0.0163	0.0000	51.2283
Total	**0.0315**	**0.3538**	**0.2461**	**5.8000e-004**	**0.0292**	**0.0138**	**0.0430**	**3.1500e-003**	**0.0127**	**0.0159**	**0.0000**	**50.8221**	**50.8221**	**0.0163**	**0.0000**	**51.2283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0455	8.5000e-003	1.6000e-004	4.1800e-003	3.7000e-004	4.5500e-003	1.1500e-003	3.5000e-004	1.5000e-003	0.0000	15.8731	15.8731	6.4000e-004	2.5200e-003	16.6388
Vendor	1.1000e-004	3.1100e-003	8.4000e-004	1.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.0822	1.0822	3.0000e-005	1.6000e-004	1.1301
Worker	8.6000e-004	6.0000e-004	7.6800e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4400e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9629	1.9629	5.0000e-005	5.0000e-005	1.9802
Total	**1.9800e-003**	**0.0492**	**0.0170**	**1.9000e-004**	**6.9400e-003**	**4.1000e-004**	**7.3600e-003**	**1.8900e-003**	**3.9000e-004**	**2.2900e-003**	**0.0000**	**18.9182**	**18.9182**	**7.2000e-004**	**2.7300e-003**	**19.7491**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

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					0.0131	0.0000	0.0131	1.4200e-003	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0315	0.3538	0.2461	5.8000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	50.8221	50.8221	0.0163	0.0000	51.2283
Total	**0.0315**	**0.3538**	**0.2461**	**5.8000e-004**	**0.0131**	**0.0138**	**0.0269**	**1.4200e-003**	**0.0127**	**0.0142**	**0.0000**	**50.8221**	**50.8221**	**0.0163**	**0.0000**	**51.2283**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0455	8.5000e-003	1.6000e-004	4.1800e-003	3.7000e-004	4.5500e-003	1.1500e-003	3.5000e-004	1.5000e-003	0.0000	15.8731	15.8731	6.4000e-004	2.5200e-003	16.6388
Vendor	1.1000e-004	3.1100e-003	8.4000e-004	1.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.0822	1.0822	3.0000e-005	1.6000e-004	1.1301
Worker	8.6000e-004	6.0000e-004	7.6800e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4400e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9629	1.9629	5.0000e-005	5.0000e-005	1.9802
Total	**1.9800e-003**	**0.0492**	**0.0170**	**1.9000e-004**	**6.9400e-003**	**4.1000e-004**	**7.3600e-003**	**1.8900e-003**	**3.9000e-004**	**2.2900e-003**	**0.0000**	**18.9182**	**18.9182**	**7.2000e-004**	**2.7300e-003**	**19.7491**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					0.0292	0.0000	0.0292	3.1500e-003	0.0000	3.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.3182	0.2443	5.8000e-004		0.0122	0.0122		0.0112	0.0112	0.0000	50.8199	50.8199	0.0163	0.0000	51.2261
Total	**0.0293**	**0.3182**	**0.2443**	**5.8000e-004**	**0.0292**	**0.0122**	**0.0413**	**3.1500e-003**	**0.0112**	**0.0144**	**0.0000**	**50.8199**	**50.8199**	**0.0163**	**0.0000**	**51.2261**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.6000e-004	0.0393	7.9000e-003	1.5000e-004	4.1800e-003	2.9000e-004	4.4600e-003	1.1500e-003	2.7000e-004	1.4200e-003	0.0000	15.3462	15.3462	6.1000e-004	2.4300e-003	16.0866
Vendor	7.0000e-005	2.6200e-003	7.2000e-004	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.0456	1.0456	3.0000e-005	1.5000e-004	1.0919
Worker	8.0000e-004	5.3000e-004	7.0600e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9009	1.9009	5.0000e-005	5.0000e-005	1.9167
Total	**1.5300e-003**	**0.0425**	**0.0157**	**1.8000e-004**	**6.9400e-003**	**3.1000e-004**	**7.2400e-003**	**1.8900e-003**	**2.9000e-004**	**2.1900e-003**	**0.0000**	**18.2927**	**18.2927**	**6.9000e-004**	**2.6300e-003**	**19.0952**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					0.0131	0.0000	0.0131	1.4200e-003	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.3182	0.2443	5.8000e-004		0.0122	0.0122		0.0112	0.0112	0.0000	50.8198	50.8198	0.0163	0.0000	51.2260
Total	**0.0293**	**0.3182**	**0.2443**	**5.8000e-004**	**0.0131**	**0.0122**	**0.0253**	**1.4200e-003**	**0.0112**	**0.0127**	**0.0000**	**50.8198**	**50.8198**	**0.0163**	**0.0000**	**51.2260**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.6000e-004	0.0393	7.9000e-003	1.5000e-004	4.1800e-003	2.9000e-004	4.4600e-003	1.1500e-003	2.7000e-004	1.4200e-003	0.0000	15.3462	15.3462	6.1000e-004	2.4300e-003	16.0866
Vendor	7.0000e-005	2.6200e-003	7.2000e-004	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.0456	1.0456	3.0000e-005	1.5000e-004	1.0919
Worker	8.0000e-004	5.3000e-004	7.0600e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9009	1.9009	5.0000e-005	5.0000e-005	1.9167
Total	**1.5300e-003**	**0.0425**	**0.0157**	**1.8000e-004**	**6.9400e-003**	**3.1000e-004**	**7.2400e-003**	**1.8900e-003**	**2.9000e-004**	**2.1900e-003**	**0.0000**	**18.2927**	**18.2927**	**6.9000e-004**	**2.6300e-003**	**19.0952**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	0.2330	2.3188	2.0512	4.1200e-003		0.1111	0.1111		0.1033	0.1033	0.0000	360.6870	360.6870	0.1020	0.0000	363.2357
Total	**0.2330**	**2.3188**	**2.0512**	**4.1200e-003**		**0.1111**	**0.1111**		**0.1033**	**0.1033**	**0.0000**	**360.6870**	**360.6870**	**0.1020**	**0.0000**	**363.2357**

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	1.4300e-003	0.0565	0.0155	2.3000e-004	7.2600e-003	3.2000e-004	7.5800e-003	2.1000e-003	3.1000e-004	2.4000e-003	0.0000	22.5748	22.5748	5.5000e-004	3.3100e-003	23.5741
Worker	3.4600e-003	2.2700e-003	0.0305	9.0000e-005	0.0105	5.0000e-005	0.0105	2.7800e-003	5.0000e-005	2.8300e-003	0.0000	8.2082	8.2082	2.1000e-004	2.1000e-004	8.2768
Total	**4.8900e-003**	**0.0587**	**0.0460**	**3.2000e-004**	**0.0177**	**3.7000e-004**	**0.0181**	**4.8800e-003**	**3.6000e-004**	**5.2300e-003**	**0.0000**	**30.7830**	**30.7830**	**7.6000e-004**	**3.5200e-003**	**31.8509**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	0.2330	2.3188	2.0512	4.1200e-003		0.1111	0.1111		0.1033	0.1033	0.0000	360.6866	360.6866	0.1020	0.0000	363.2353
Total	**0.2330**	**2.3188**	**2.0512**	**4.1200e-003**		**0.1111**	**0.1111**		**0.1033**	**0.1033**	**0.0000**	**360.6866**	**360.6866**	**0.1020**	**0.0000**	**363.2353**

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	1.4300e-003	0.0565	0.0155	2.3000e-004	7.2600e-003	3.2000e-004	7.5800e-003	2.1000e-003	3.1000e-004	2.4000e-003	0.0000	22.5748	22.5748	5.5000e-004	3.3100e-003	23.5741
Worker	3.4600e-003	2.2700e-003	0.0305	9.0000e-005	0.0105	5.0000e-005	0.0105	2.7800e-003	5.0000e-005	2.8300e-003	0.0000	8.2082	8.2082	2.1000e-004	2.1000e-004	8.2768
Total	**4.8900e-003**	**0.0587**	**0.0460**	**3.2000e-004**	**0.0177**	**3.7000e-004**	**0.0181**	**4.8800e-003**	**3.6000e-004**	**5.2300e-003**	**0.0000**	**30.7830**	**30.7830**	**7.6000e-004**	**3.5200e-003**	**31.8509**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.6000e-004	4.0000e-004	5.2300e-003	1.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.6000e-004	0.0000	1.3445	1.3445	4.0000e-005	4.0000e-005	1.3566
Unmitigated	3.6000e-004	4.0000e-004	5.2300e-003	1.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.6000e-004	0.0000	1.3445	1.3445	4.0000e-005	4.0000e-005	1.3566

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	0.00	7.83	0.00	4,685	4,685
Total	0.00	7.83	0.00	4,685	4,685

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
Refrigerated Warehouse-No	15.00	7.50	8.50	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	112.7319	112.7319	0.0104	1.2600e-003	113.3670
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.7319	112.7319	0.0104	1.2600e-003	113.3670
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

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Refrigerated Warehouse-No Rail	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					
Refrigerated Warehouse-No Rail	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	694260	112.7319	0.0104	1.2600e-003	113.3670
Total		**112.7319**	**0.0104**	**1.2600e-003**	**113.3670**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	694260	112.7319	0.0104	1.2600e-003	113.3670
Total		**112.7319**	**0.0104**	**1.2600e-003**	**113.3670**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1901	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1901	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-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	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1901**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1901**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	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			
Refrigerated Warehouse-No Rail	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
Cranes	1	8.00	1	231	0.29	Diesel

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Cranes	1.8000e-004	1.9100e-003	9.2000e-004	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2535	0.2535	8.0000e-005	0.0000	0.2555
Total	**1.8000e-004**	**1.9100e-003**	**9.2000e-004**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.2535**	**0.2535**	**8.0000e-005**	**0.0000**	**0.2555**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sunridge Energy Storage Project

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	43.50	1000sqft	1.00	43,500.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2023
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Surrogate land use for battery storage containers.

Construction Phase - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Trips and VMT - Based on project description.

Grading - CalEEMod defaults.

Vehicle Trips - Up to 4 workers visit the site monthly for maintenance.

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - CalEEMod defaults. No natural gas.

Water And Wastewater - No water use.

Solid Waste - No solid waste.

Construction Off-road Equipment Mitigation - In accordance with SMAQMD Rule 403.

Operational Off-Road Equipment - Use of crane to move containers.

Fleet Mix - Worker vehicle mix.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	1.00	22.00
tblEnergyUse	NT24NG	0.63	0.00
tblEnergyUse	T24NG	0.82	0.00
tblFleetMix	HHD	9.3060e-003	0.00
tblFleetMix	LDA	0.54	0.50
tblFleetMix	LDT1	0.06	0.25
tblFleetMix	LDT2	0.18	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0930e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.5070e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4200e-004	0.00
tblFleetMix	SBUS	1.0060e-003	0.00
tblFleetMix	UBUS	5.4800e-004	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	40.89	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	988.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	30.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblVehicleTrips	ST_TR	2.12	0.18

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	10,059,375.00	0.00

2.0 Emissions Summary

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	3.0607	36.3809	24.0515	0.0707	1.9769	1.2939	3.2708	0.3200	1.1937	1.5136	0.0000	7,007.6610	7,007.6610	1.7002	0.2730	7,131.5226
2023	5.0194	49.9872	44.2726	0.0937	1.9768	2.3470	3.1130	0.3199	2.1817	2.2875	0.0000	9,102.9461	9,102.9461	2.3835	0.2637	9,186.7560
Maximum	**5.0194**	**49.9872**	**44.2726**	**0.0937**	**1.9769**	**2.3470**	**3.2708**	**0.3200**	**2.1817**	**2.2875**	**0.0000**	**9,102.9461**	**9,102.9461**	**2.3835**	**0.2730**	**9,186.7560**

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	lb/day										lb/day					
2022	3.0607	36.3809	24.0515	0.0707	1.2478	1.2939	2.5417	0.2412	1.1937	1.4349	0.0000	7,007.6610	7,007.6610	1.7002	0.2730	7,131.5226
2023	5.0194	49.9872	44.2726	0.0937	1.2477	2.3470	2.7325	0.2412	2.1817	2.2875	0.0000	9,102.9461	9,102.9461	2.3835	0.2637	9,186.7560
Maximum	**5.0194**	**49.9872**	**44.2726**	**0.0937**	**1.2478**	**2.3470**	**2.7325**	**0.2412**	**2.1817**	**2.2875**	**0.0000**	**9,102.9461**	**9,102.9461**	**2.3835**	**0.2730**	**9,186.7560**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**36.88**	**0.00**	**17.38**	**24.61**	**0.00**	**2.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
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
Mobile	0.0179	0.0139	0.2376	6.2000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		62.5523	62.5523	1.6200e-003	1.4900e-003	63.0382
Offroad	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**1.4111**	**3.8295**	**2.0765**	**6.3900e-003**	**0.0684**	**0.1597**	**0.2281**	**0.0181**	**0.1469**	**0.1651**	**0.0000**	**621.3811**	**621.3811**	**0.1824**	**1.4900e-003**	**626.3859**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
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
Mobile	0.0179	0.0139	0.2376	6.2000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		62.5523	62.5523	1.6200e-003	1.4900e-003	63.0382
Offroad	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**1.4111**	**3.8295**	**2.0765**	**6.3900e-003**	**0.0684**	**0.1597**	**0.2281**	**0.0181**	**0.1469**	**0.1651**	**0.0000**	**621.3811**	**621.3811**	**0.1824**	**1.4900e-003**	**626.3859**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Battery/Container Installation	Building Construction	6/14/2023	10/31/2023	5	100	
2	Site Preparation	Site Preparation	11/1/2022	11/30/2022	5	22	
3	Grading	Grading	12/1/2022	1/31/2023	5	44	
4	Substation Installation	Building Construction	2/1/2023	6/13/2023	5	95	

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Site Preparation Phase): 13.75

Acres of Grading (Grading Phase): 55

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	Graders	1	10.00	187	0.41
Site Preparation	Rubber Tired Loaders	1	10.00	203	0.36
Site Preparation	Skid Steer Loaders	2	10.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading	Graders	2	10.00	187	0.41
Grading	Plate Compactors	2	10.00	8	0.43
Grading	Rollers	2	10.00	80	0.38
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Rubber Tired Loaders	2	10.00	203	0.36
Grading	Skid Steer Loaders	2	10.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation Installation	Aerial Lifts	2	10.00	63	0.31
Substation Installation	Air Compressors	1	10.00	78	0.48
Substation Installation	Bore/Drill Rigs	1	10.00	221	0.50
Substation Installation	Cranes	1	10.00	231	0.29
Substation Installation	Excavators	1	10.00	158	0.38
Substation Installation	Forklifts	0	6.00	89	0.20
Substation Installation	Generator Sets	1	10.00	84	0.74
Substation Installation	Rollers	1	10.00	80	0.38
Substation Installation	Rough Terrain Forklifts	1	10.00	100	0.40

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Substation Installation	Rubber Tired Dozers	2	10.00	247	0.40
Substation Installation	Skid Steer Loaders	1	10.00	65	0.37
Substation Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Substation Installation	Trenchers	2	10.00	78	0.50
Battery/Container Installation	Air Compressors	2	10.00	78	0.48
Battery/Container Installation	Cranes	1	10.00	231	0.29
Battery/Container Installation	Excavators	1	10.00	158	0.38
Battery/Container Installation	Forklifts	0	6.00	89	0.20
Battery/Container Installation	Generator Sets	1	10.00	84	0.74
Battery/Container Installation	Plate Compactors	1	10.00	8	0.43
Battery/Container Installation	Rollers	1	10.00	80	0.38
Battery/Container Installation	Rough Terrain Forklifts	1	10.00	100	0.40
Battery/Container Installation	Skid Steer Loaders	1	10.00	65	0.37
Battery/Container Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Battery/Container Installation	Trenchers	1	10.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	20.00	2.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	20.00	4.00	988.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Substation Installation	15	20.00	20.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Battery/Container Installation	11	20.00	20.00	4.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Battery/Container Installation - 2023

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	lb/day										lb/day					
Off-Road	2.7747	25.5609	30.1875	0.0507		1.2812	1.2812		1.2114	1.2114		4,855.1759	4,855.1759	1.0959		4,882.5730
Total	**2.7747**	**25.5609**	**30.1875**	**0.0507**		**1.2812**	**1.2812**		**1.2114**	**1.2114**		**4,855.1759**	**4,855.1759**	**1.0959**		**4,882.5730**

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	lb/day										lb/day					
Hauling	1.1000e-004	6.0100e-003	1.2700e-003	3.0000e-005	7.0000e-004	5.0000e-005	7.4000e-004	1.9000e-004	4.0000e-005	2.4000e-004		2.7388	2.7388	1.1000e-004	4.3000e-004	2.8710
Vendor	0.0308	1.1266	0.3206	4.8800e-003	0.1574	6.6900e-003	0.1641	0.0453	6.4000e-003	0.0517		523.7627	523.7627	0.0129	0.0766	546.9246
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1139**	**1.1762**	**1.0909**	**6.9800e-003**	**0.3862**	**7.8700e-003**	**0.3941**	**0.1060**	**7.4800e-003**	**0.1135**		**735.3831**	**735.3831**	**0.0177**	**0.0817**	**760.1786**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Battery/Container Installation - 2023

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	lb/day										lb/day					
Off-Road	2.7747	25.5609	30.1875	0.0507		1.2812	1.2812		1.2114	1.2114	0.0000	4,855.1758	4,855.1758	1.0959		4,882.5730
Total	**2.7747**	**25.5609**	**30.1875**	**0.0507**		**1.2812**	**1.2812**		**1.2114**	**1.2114**	**0.0000**	**4,855.1758**	**4,855.1758**	**1.0959**		**4,882.5730**

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	lb/day										lb/day					
Hauling	1.1000e-004	6.0100e-003	1.2700e-003	3.0000e-005	7.0000e-004	5.0000e-005	7.4000e-004	1.9000e-004	4.0000e-005	2.4000e-004		2.7388	2.7388	1.1000e-004	4.3000e-004	2.8710
Vendor	0.0308	1.1266	0.3206	4.8800e-003	0.1574	6.6900e-003	0.1641	0.0453	6.4000e-003	0.0517		523.7627	523.7627	0.0129	0.0766	546.9246
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1139**	**1.1762**	**1.0909**	**6.9800e-003**	**0.3862**	**7.8700e-003**	**0.3941**	**0.1060**	**7.4800e-003**	**0.1135**		**735.3831**	**735.3831**	**0.0177**	**0.0817**	**760.1786**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6628	0.0000	0.6628	0.0716	0.0000	0.0716			0.0000			0.0000
Off-Road	1.4688	16.8638	13.1291	0.0291		0.6474	0.6474		0.5956	0.5956		2,812.7546	2,812.7546	0.9097		2,835.4971
Total	**1.4688**	**16.8638**	**13.1291**	**0.0291**	**0.6628**	**0.6474**	**1.3102**	**0.0716**	**0.5956**	**0.6672**		**2,812.7546**	**2,812.7546**	**0.9097**		**2,835.4971**

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	lb/day										lb/day					
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
Vendor	5.2200e-003	0.1339	0.0374	5.1000e-004	0.0157	1.3700e-003	0.0171	4.5300e-003	1.3100e-003	5.8400e-003		54.2280	54.2280	1.4100e-003	7.9300e-003	56.6258
Worker	0.0893	0.0496	0.8380	2.1300e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		215.7687	215.7687	5.2800e-003	5.0400e-003	217.4011
Total	**0.0945**	**0.1834**	**0.8754**	**2.6400e-003**	**0.2439**	**2.5600e-003**	**0.2464**	**0.0650**	**2.4000e-003**	**0.0674**		**269.9968**	**269.9968**	**6.6900e-003**	**0.0130**	**274.0269**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					0.2983	0.0000	0.2983	0.0322	0.0000	0.0322			0.0000			0.0000
Off-Road	1.4688	16.8638	13.1291	0.0291		0.6474	0.6474		0.5956	0.5956	0.0000	2,812.7546	2,812.7546	0.9097		2,835.4971
Total	**1.4688**	**16.8638**	**13.1291**	**0.0291**	**0.2983**	**0.6474**	**0.9457**	**0.0322**	**0.5956**	**0.6278**	**0.0000**	**2,812.7546**	**2,812.7546**	**0.9097**		**2,835.4971**

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	lb/day										lb/day					
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
Vendor	5.2200e-003	0.1339	0.0374	5.1000e-004	0.0157	1.3700e-003	0.0171	4.5300e-003	1.3100e-003	5.8400e-003		54.2280	54.2280	1.4100e-003	7.9300e-003	56.6258
Worker	0.0893	0.0496	0.8380	2.1300e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		215.7687	215.7687	5.2800e-003	5.0400e-003	217.4011
Total	**0.0945**	**0.1834**	**0.8754**	**2.6400e-003**	**0.2439**	**2.5600e-003**	**0.2464**	**0.0650**	**2.4000e-003**	**0.0674**		**269.9968**	**269.9968**	**6.6900e-003**	**0.0130**	**274.0269**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3256	0.0000	1.3256	0.1431	0.0000	0.1431			0.0000			0.0000
Off-Road	2.8677	32.1600	22.3723	0.0529		1.2563	1.2563		1.1578	1.1578		5,092.8916	5,092.8916	1.6282		5,133.5970
Total	**2.8677**	**32.1600**	**22.3723**	**0.0529**	**1.3256**	**1.2563**	**2.5820**	**0.1431**	**1.1578**	**1.3009**		**5,092.8916**	**5,092.8916**	**1.6282**		**5,133.5970**

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	lb/day										lb/day					
Hauling	0.0933	3.9036	0.7665	0.0146	0.3917	0.0336	0.4253	0.1073	0.0322	0.1394		1,590.5446	1,590.5446	0.0639	0.2521	1,667.2729
Vendor	0.0105	0.2677	0.0748	1.0100e-003	0.0315	2.7500e-003	0.0342	9.0600e-003	2.6300e-003	0.0117		108.4560	108.4560	2.8300e-003	0.0159	113.2516
Worker	0.0893	0.0496	0.8380	2.1300e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		215.7687	215.7687	5.2800e-003	5.0400e-003	217.4011
Total	**0.1930**	**4.2209**	**1.6792**	**0.0177**	**0.6513**	**0.0376**	**0.6888**	**0.1768**	**0.0359**	**0.2127**		**1,914.7694**	**1,914.7694**	**0.0720**	**0.2730**	**1,997.9256**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					0.5965	0.0000	0.5965	0.0644	0.0000	0.0644			0.0000			0.0000
Off-Road	2.8677	32.1600	22.3723	0.0529		1.2563	1.2563		1.1578	1.1578	0.0000	5,092.8916	5,092.8916	1.6282		5,133.5970
Total	**2.8677**	**32.1600**	**22.3723**	**0.0529**	**0.5965**	**1.2563**	**1.8529**	**0.0644**	**1.1578**	**1.2222**	**0.0000**	**5,092.8916**	**5,092.8916**	**1.6282**		**5,133.5970**

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	lb/day										lb/day					
Hauling	0.0933	3.9036	0.7665	0.0146	0.3917	0.0336	0.4253	0.1073	0.0322	0.1394		1,590.5446	1,590.5446	0.0639	0.2521	1,667.2729
Vendor	0.0105	0.2677	0.0748	1.0100e-003	0.0315	2.7500e-003	0.0342	9.0600e-003	2.6300e-003	0.0117		108.4560	108.4560	2.8300e-003	0.0159	113.2516
Worker	0.0893	0.0496	0.8380	2.1300e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		215.7687	215.7687	5.2800e-003	5.0400e-003	217.4011
Total	**0.1930**	**4.2209**	**1.6792**	**0.0177**	**0.6513**	**0.0376**	**0.6888**	**0.1768**	**0.0359**	**0.2127**		**1,914.7694**	**1,914.7694**	**0.0720**	**0.2730**	**1,997.9256**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					1.3256	0.0000	1.3256	0.1431	0.0000	0.1431			0.0000			0.0000
Off-Road	2.6606	28.9237	22.2045	0.0529		1.1077	1.1077		1.0210	1.0210		5,092.6652	5,092.6652	1.6281		5,133.3687
Total	**2.6606**	**28.9237**	**22.2045**	**0.0529**	**1.3256**	**1.1077**	**2.4333**	**0.1431**	**1.0210**	**1.1642**		**5,092.6652**	**5,092.6652**	**1.6281**		**5,133.3687**

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	lb/day										lb/day					
Hauling	0.0609	3.3752	0.7124	0.0141	0.3916	0.0260	0.4176	0.1072	0.0249	0.1321		1,537.4801	1,537.4801	0.0613	0.2438	1,611.6566
Vendor	6.1500e-003	0.2253	0.0641	9.8000e-004	0.0315	1.3400e-003	0.0328	9.0600e-003	1.2800e-003	0.0103		104.7525	104.7525	2.5800e-003	0.0153	109.3849
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1502**	**3.6441**	**1.5456**	**0.0171**	**0.6512**	**0.0285**	**0.6797**	**0.1768**	**0.0272**	**0.2040**		**1,851.1142**	**1,851.1142**	**0.0686**	**0.2637**	**1,931.4246**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					0.5965	0.0000	0.5965	0.0644	0.0000	0.0644			0.0000			0.0000
Off-Road	2.6606	28.9237	22.2045	0.0529		1.1077	1.1077		1.0210	1.0210	0.0000	5,092.6652	5,092.6652	1.6281		5,133.3687
Total	**2.6606**	**28.9237**	**22.2045**	**0.0529**	**0.5965**	**1.1077**	**1.7042**	**0.0644**	**1.0210**	**1.0854**	**0.0000**	**5,092.6652**	**5,092.6652**	**1.6281**		**5,133.3687**

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	lb/day										lb/day					
Hauling	0.0609	3.3752	0.7124	0.0141	0.3916	0.0260	0.4176	0.1072	0.0249	0.1321		1,537.4801	1,537.4801	0.0613	0.2438	1,611.6566
Vendor	6.1500e-003	0.2253	0.0641	9.8000e-004	0.0315	1.3400e-003	0.0328	9.0600e-003	1.2800e-003	0.0103		104.7525	104.7525	2.5800e-003	0.0153	109.3849
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1502**	**3.6441**	**1.5456**	**0.0171**	**0.6512**	**0.0285**	**0.6797**	**0.1768**	**0.0272**	**0.2040**		**1,851.1142**	**1,851.1142**	**0.0686**	**0.2637**	**1,931.4246**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	lb/day										lb/day					
Off-Road	4.9056	48.8170	43.1829	0.0867		2.3392	2.3392		2.1743	2.1743		8,370.3018	8,370.3018	2.3659		8,429.4484
Total	**4.9056**	**48.8170**	**43.1829**	**0.0867**		**2.3392**	**2.3392**		**2.1743**	**2.1743**		**8,370.3018**	**8,370.3018**	**2.3659**		**8,429.4484**

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	lb/day										lb/day					
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
Vendor	0.0308	1.1266	0.3206	4.8800e-003	0.1574	6.6900e-003	0.1641	0.0453	6.4000e-003	0.0517		523.7627	523.7627	0.0129	0.0766	546.9246
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1138**	**1.1702**	**1.0897**	**6.9500e-003**	**0.3855**	**7.8200e-003**	**0.3933**	**0.1058**	**7.4400e-003**	**0.1132**		**732.6443**	**732.6443**	**0.0176**	**0.0813**	**757.3076**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	lb/day										lb/day					
Off-Road	4.9056	48.8170	43.1829	0.0867		2.3392	2.3392		2.1743	2.1743	0.0000	8,370.3018	8,370.3018	2.3659		8,429.4484
Total	**4.9056**	**48.8170**	**43.1829**	**0.0867**		**2.3392**	**2.3392**		**2.1743**	**2.1743**	**0.0000**	**8,370.3018**	**8,370.3018**	**2.3659**		**8,429.4484**

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	lb/day										lb/day					
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
Vendor	0.0308	1.1266	0.3206	4.8800e-003	0.1574	6.6900e-003	0.1641	0.0453	6.4000e-003	0.0517		523.7627	523.7627	0.0129	0.0766	546.9246
Worker	0.0831	0.0436	0.7691	2.0700e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		208.8816	208.8816	4.7200e-003	4.6400e-003	210.3830
Total	**0.1138**	**1.1702**	**1.0897**	**6.9500e-003**	**0.3855**	**7.8200e-003**	**0.3933**	**0.1058**	**7.4400e-003**	**0.1132**		**732.6443**	**732.6443**	**0.0176**	**0.0813**	**757.3076**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Mitigated	0.0179	0.0139	0.2376	6.2000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		62.5523	62.5523	1.6200e-003	1.4900e-003	63.0382
Unmitigated	0.0179	0.0139	0.2376	6.2000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		62.5523	62.5523	1.6200e-003	1.4900e-003	63.0382

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	0.00	7.83	0.00	4,685	4,685
Total	0.00	7.83	0.00	4,685	4,685

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
Refrigerated Warehouse-No	15.00	7.50	8.50	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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

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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
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**

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	lb/day										lb/day					
Mitigated	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Unmitigated	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.1105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-004	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Total	**1.0418**	**4.0000e-005**	**4.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5200e-003**	**9.5200e-003**	**2.0000e-005**		**0.0101**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.1105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-004	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Total	**1.0418**	**4.0000e-005**	**4.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5200e-003**	**9.5200e-003**	**2.0000e-005**		**0.0101**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	1	8.00	1	231	0.29	Diesel

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Cranes	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**0.3514**	**3.8155**	**1.8344**	**5.7700e-003**		**0.1593**	**0.1593**		**0.1466**	**0.1466**	**0.0000**	**558.8192**	**558.8192**	**0.1807**		**563.3376**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sunridge Energy Storage Project

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	43.50	1000sqft	1.00	43,500.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2023
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Surrogate land use for battery storage containers.

Construction Phase - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Off-road Equipment - Based on project description.

Trips and VMT - Based on project description.

Grading - CalEEMod defaults.

Vehicle Trips - Up to 4 workers visit the site monthly for maintenance.

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - CalEEMod defaults. No natural gas.

Water And Wastewater - No water use.

Solid Waste - No solid waste.

Construction Off-road Equipment Mitigation - In accordance with SMAQMD Rule 403.

Operational Off-Road Equipment - Use of crane to move containers.

Fleet Mix - Worker vehicle mix.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	1.00	22.00
tblEnergyUse	NT24NG	0.63	0.00
tblEnergyUse	T24NG	0.82	0.00
tblFleetMix	HHD	9.3060e-003	0.00
tblFleetMix	LDA	0.54	0.50
tblFleetMix	LDT1	0.06	0.25
tblFleetMix	LDT2	0.18	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0930e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.5070e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4200e-004	0.00
tblFleetMix	SBUS	1.0060e-003	0.00
tblFleetMix	UBUS	5.4800e-004	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	40.89	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	988.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	7.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	30.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblVehicleTrips	ST_TR	2.12	0.18

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	10,059,375.00	0.00

2.0 Emissions Summary

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	3.0517	36.7260	23.9282	0.0704	1.9769	1.2940	3.2709	0.3200	1.1938	1.5138	0.0000	6,983.7786	6,983.7786	1.7005	0.2738	7,107.8936
2023	5.0131	50.0841	44.1573	0.0935	1.9768	2.3470	3.1131	0.3199	2.1818	2.2876	0.0000	9,079.9776	9,079.9776	2.3838	0.2646	9,164.0516
Maximum	**5.0131**	**50.0841**	**44.1573**	**0.0935**	**1.9769**	**2.3470**	**3.2709**	**0.3200**	**2.1818**	**2.2876**	**0.0000**	**9,079.9776**	**9,079.9776**	**2.3838**	**0.2738**	**9,164.0516**

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	lb/day										lb/day					
2022	3.0517	36.7260	23.9282	0.0704	1.2478	1.2940	2.5418	0.2412	1.1938	1.4350	0.0000	6,983.7786	6,983.7786	1.7005	0.2738	7,107.8936
2023	5.0131	50.0841	44.1573	0.0935	1.2477	2.3470	2.7326	0.2412	2.1818	2.2876	0.0000	9,079.9776	9,079.9776	2.3838	0.2646	9,164.0516
Maximum	**5.0131**	**50.0841**	**44.1573**	**0.0935**	**1.2478**	**2.3470**	**2.7326**	**0.2412**	**2.1818**	**2.2876**	**0.0000**	**9,079.9776**	**9,079.9776**	**2.3838**	**0.2738**	**9,164.0516**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**36.88**	**0.00**	**17.38**	**24.61**	**0.00**	**2.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
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
Mobile	0.0129	0.0171	0.2038	5.5000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		55.6221	55.6221	1.8300e-003	1.7100e-003	56.1790
Offroad	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**1.4061**	**3.8326**	**2.0427**	**6.3200e-003**	**0.0684**	**0.1597**	**0.2281**	**0.0181**	**0.1469**	**0.1651**	**0.0000**	**614.4509**	**614.4509**	**0.1826**	**1.7100e-003**	**619.5267**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
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
Mobile	0.0129	0.0171	0.2038	5.5000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		55.6221	55.6221	1.8300e-003	1.7100e-003	56.1790
Offroad	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**1.4061**	**3.8326**	**2.0427**	**6.3200e-003**	**0.0684**	**0.1597**	**0.2281**	**0.0181**	**0.1469**	**0.1651**	**0.0000**	**614.4509**	**614.4509**	**0.1826**	**1.7100e-003**	**619.5267**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Battery/Container Installation	Building Construction	6/14/2023	10/31/2023	5	100	
2	Site Preparation	Site Preparation	11/1/2022	11/30/2022	5	22	
3	Grading	Grading	12/1/2022	1/31/2023	5	44	
4	Substation Installation	Building Construction	2/1/2023	6/13/2023	5	95	

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Site Preparation Phase): 13.75

Acres of Grading (Grading Phase): 55

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	Graders	1	10.00	187	0.41
Site Preparation	Rubber Tired Loaders	1	10.00	203	0.36
Site Preparation	Skid Steer Loaders	2	10.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading	Graders	2	10.00	187	0.41
Grading	Plate Compactors	2	10.00	8	0.43
Grading	Rollers	2	10.00	80	0.38
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Rubber Tired Loaders	2	10.00	203	0.36
Grading	Skid Steer Loaders	2	10.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation Installation	Aerial Lifts	2	10.00	63	0.31
Substation Installation	Air Compressors	1	10.00	78	0.48
Substation Installation	Bore/Drill Rigs	1	10.00	221	0.50
Substation Installation	Cranes	1	10.00	231	0.29
Substation Installation	Excavators	1	10.00	158	0.38
Substation Installation	Forklifts	0	6.00	89	0.20
Substation Installation	Generator Sets	1	10.00	84	0.74
Substation Installation	Rollers	1	10.00	80	0.38
Substation Installation	Rough Terrain Forklifts	1	10.00	100	0.40

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Substation Installation	Rubber Tired Dozers	2	10.00	247	0.40
Substation Installation	Skid Steer Loaders	1	10.00	65	0.37
Substation Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Substation Installation	Trenchers	2	10.00	78	0.50
Battery/Container Installation	Air Compressors	2	10.00	78	0.48
Battery/Container Installation	Cranes	1	10.00	231	0.29
Battery/Container Installation	Excavators	1	10.00	158	0.38
Battery/Container Installation	Forklifts	0	6.00	89	0.20
Battery/Container Installation	Generator Sets	1	10.00	84	0.74
Battery/Container Installation	Plate Compactors	1	10.00	8	0.43
Battery/Container Installation	Rollers	1	10.00	80	0.38
Battery/Container Installation	Rough Terrain Forklifts	1	10.00	100	0.40
Battery/Container Installation	Skid Steer Loaders	1	10.00	65	0.37
Battery/Container Installation	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Battery/Container Installation	Trenchers	1	10.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	20.00	2.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	12	20.00	4.00	988.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Substation Installation	15	20.00	20.00	0.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT
Battery/Container Installation	11	20.00	20.00	4.00	15.00	8.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Battery/Container Installation - 2023

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	lb/day										lb/day					
Off-Road	2.7747	25.5609	30.1875	0.0507		1.2812	1.2812		1.2114	1.2114		4,855.1759	4,855.1759	1.0959		4,882.5730
Total	**2.7747**	**25.5609**	**30.1875**	**0.0507**		**1.2812**	**1.2812**		**1.2114**	**1.2114**		**4,855.1759**	**4,855.1759**	**1.0959**		**4,882.5730**

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	lb/day										lb/day					
Hauling	1.0000e-004	6.5000e-003	1.2900e-003	3.0000e-005	7.0000e-004	5.0000e-005	7.4000e-004	1.9000e-004	4.0000e-005	2.4000e-004		2.7404	2.7404	1.1000e-004	4.3000e-004	2.8726
Vendor	0.0300	1.2135	0.3329	4.8900e-003	0.1574	6.7500e-003	0.1642	0.0453	6.4600e-003	0.0518		524.0543	524.0543	0.0128	0.0768	547.2649
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1075**	**1.2736**	**0.9757**	**6.7600e-003**	**0.3862**	**7.9300e-003**	**0.3941**	**0.1060**	**7.5400e-003**	**0.1135**		**712.4162**	**712.4162**	**0.0181**	**0.0826**	**737.4759**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Battery/Container Installation - 2023

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	lb/day										lb/day					
Off-Road	2.7747	25.5609	30.1875	0.0507		1.2812	1.2812		1.2114	1.2114	0.0000	4,855.1758	4,855.1758	1.0959		4,882.5730
Total	**2.7747**	**25.5609**	**30.1875**	**0.0507**		**1.2812**	**1.2812**		**1.2114**	**1.2114**	**0.0000**	**4,855.1758**	**4,855.1758**	**1.0959**		**4,882.5730**

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	lb/day										lb/day					
Hauling	1.0000e-004	6.5000e-003	1.2900e-003	3.0000e-005	7.0000e-004	5.0000e-005	7.4000e-004	1.9000e-004	4.0000e-005	2.4000e-004		2.7404	2.7404	1.1000e-004	4.3000e-004	2.8726
Vendor	0.0300	1.2135	0.3329	4.8900e-003	0.1574	6.7500e-003	0.1642	0.0453	6.4600e-003	0.0518		524.0543	524.0543	0.0128	0.0768	547.2649
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1075**	**1.2736**	**0.9757**	**6.7600e-003**	**0.3862**	**7.9300e-003**	**0.3941**	**0.1060**	**7.5400e-003**	**0.1135**		**712.4162**	**712.4162**	**0.0181**	**0.0826**	**737.4759**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6628	0.0000	0.6628	0.0716	0.0000	0.0716			0.0000			0.0000
Off-Road	1.4688	16.8638	13.1291	0.0291		0.6474	0.6474		0.5956	0.5956		2,812.7546	2,812.7546	0.9097		2,835.4971
Total	**1.4688**	**16.8638**	**13.1291**	**0.0291**	**0.6628**	**0.6474**	**1.3102**	**0.0716**	**0.5956**	**0.6672**		**2,812.7546**	**2,812.7546**	**0.9097**		**2,835.4971**

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	lb/day										lb/day					
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
Vendor	5.1600e-003	0.1441	0.0388	5.1000e-004	0.0157	1.3800e-003	0.0171	4.5300e-003	1.3200e-003	5.8500e-003		54.2229	54.2229	1.4100e-003	7.9400e-003	56.6245
Worker	0.0830	0.0609	0.6962	1.9000e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		191.6674	191.6674	5.7100e-003	5.7800e-003	193.5340
Total	**0.0881**	**0.2051**	**0.7349**	**2.4100e-003**	**0.2439**	**2.5700e-003**	**0.2464**	**0.0650**	**2.4100e-003**	**0.0674**		**245.8903**	**245.8903**	**7.1200e-003**	**0.0137**	**250.1585**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					0.2983	0.0000	0.2983	0.0322	0.0000	0.0322			0.0000			0.0000
Off-Road	1.4688	16.8638	13.1291	0.0291		0.6474	0.6474		0.5956	0.5956	0.0000	2,812.7546	2,812.7546	0.9097		2,835.4971
Total	**1.4688**	**16.8638**	**13.1291**	**0.0291**	**0.2983**	**0.6474**	**0.9457**	**0.0322**	**0.5956**	**0.6278**	**0.0000**	**2,812.7546**	**2,812.7546**	**0.9097**		**2,835.4971**

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	lb/day										lb/day					
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
Vendor	5.1600e-003	0.1441	0.0388	5.1000e-004	0.0157	1.3800e-003	0.0171	4.5300e-003	1.3200e-003	5.8500e-003		54.2229	54.2229	1.4100e-003	7.9400e-003	56.6245
Worker	0.0830	0.0609	0.6962	1.9000e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		191.6674	191.6674	5.7100e-003	5.7800e-003	193.5340
Total	**0.0881**	**0.2051**	**0.7349**	**2.4100e-003**	**0.2439**	**2.5700e-003**	**0.2464**	**0.0650**	**2.4100e-003**	**0.0674**		**245.8903**	**245.8903**	**7.1200e-003**	**0.0137**	**250.1585**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3256	0.0000	1.3256	0.1431	0.0000	0.1431			0.0000			0.0000
Off-Road	2.8677	32.1600	22.3723	0.0529		1.2563	1.2563		1.1578	1.1578		5,092.8916	5,092.8916	1.6282		5,133.5970
Total	**2.8677**	**32.1600**	**22.3723**	**0.0529**	**1.3256**	**1.2563**	**2.5820**	**0.1431**	**1.1578**	**1.3009**		**5,092.8916**	**5,092.8916**	**1.6282**		**5,133.5970**

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	lb/day										lb/day					
Hauling	0.0908	4.2168	0.7822	0.0146	0.3917	0.0338	0.4254	0.1073	0.0323	0.1396		1,590.7738	1,590.7738	0.0637	0.2522	1,667.5136
Vendor	0.0103	0.2883	0.0775	1.0100e-003	0.0315	2.7600e-003	0.0343	9.0600e-003	2.6400e-003	0.0117		108.4458	108.4458	2.8200e-003	0.0159	113.2489
Worker	0.0830	0.0609	0.6962	1.9000e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		191.6674	191.6674	5.7100e-003	5.7800e-003	193.5340
Total	**0.1841**	**4.5660**	**1.5559**	**0.0175**	**0.6513**	**0.0377**	**0.6890**	**0.1768**	**0.0360**	**0.2128**		**1,890.8869**	**1,890.8869**	**0.0723**	**0.2738**	**1,974.2966**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					0.5965	0.0000	0.5965	0.0644	0.0000	0.0644			0.0000			0.0000
Off-Road	2.8677	32.1600	22.3723	0.0529		1.2563	1.2563		1.1578	1.1578	0.0000	5,092.8916	5,092.8916	1.6282		5,133.5970
Total	**2.8677**	**32.1600**	**22.3723**	**0.0529**	**0.5965**	**1.2563**	**1.8529**	**0.0644**	**1.1578**	**1.2222**	**0.0000**	**5,092.8916**	**5,092.8916**	**1.6282**		**5,133.5970**

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	lb/day										lb/day					
Hauling	0.0908	4.2168	0.7822	0.0146	0.3917	0.0338	0.4254	0.1073	0.0323	0.1396		1,590.7738	1,590.7738	0.0637	0.2522	1,667.5136
Vendor	0.0103	0.2883	0.0775	1.0100e-003	0.0315	2.7600e-003	0.0343	9.0600e-003	2.6400e-003	0.0117		108.4458	108.4458	2.8200e-003	0.0159	113.2489
Worker	0.0830	0.0609	0.6962	1.9000e-003	0.2281	1.1900e-003	0.2293	0.0605	1.0900e-003	0.0616		191.6674	191.6674	5.7100e-003	5.7800e-003	193.5340
Total	**0.1841**	**4.5660**	**1.5559**	**0.0175**	**0.6513**	**0.0377**	**0.6890**	**0.1768**	**0.0360**	**0.2128**		**1,890.8869**	**1,890.8869**	**0.0723**	**0.2738**	**1,974.2966**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					1.3256	0.0000	1.3256	0.1431	0.0000	0.1431			0.0000			0.0000
Off-Road	2.6606	28.9237	22.2045	0.0529		1.1077	1.1077		1.0210	1.0210		5,092.6652	5,092.6652	1.6281		5,133.3687
Total	**2.6606**	**28.9237**	**22.2045**	**0.0529**	**1.3256**	**1.1077**	**2.4333**	**0.1431**	**1.0210**	**1.1642**		**5,092.6652**	**5,092.6652**	**1.6281**		**5,133.3687**

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	lb/day										lb/day					
Hauling	0.0581	3.6493	0.7254	0.0141	0.3916	0.0261	0.4177	0.1072	0.0250	0.1322		1,538.3544	1,538.3544	0.0612	0.2439	1,612.5719
Vendor	5.9900e-003	0.2427	0.0666	9.8000e-004	0.0315	1.3500e-003	0.0328	9.0600e-003	1.2900e-003	0.0104		104.8109	104.8109	2.5700e-003	0.0154	109.4530
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1415**	**3.9456**	**1.4334**	**0.0169**	**0.6512**	**0.0286**	**0.6798**	**0.1768**	**0.0273**	**0.2041**		**1,828.7868**	**1,828.7868**	**0.0689**	**0.2646**	**1,909.3632**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					0.5965	0.0000	0.5965	0.0644	0.0000	0.0644			0.0000			0.0000
Off-Road	2.6606	28.9237	22.2045	0.0529		1.1077	1.1077		1.0210	1.0210	0.0000	5,092.6652	5,092.6652	1.6281		5,133.3687
Total	**2.6606**	**28.9237**	**22.2045**	**0.0529**	**0.5965**	**1.1077**	**1.7042**	**0.0644**	**1.0210**	**1.0854**	**0.0000**	**5,092.6652**	**5,092.6652**	**1.6281**		**5,133.3687**

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	lb/day										lb/day					
Hauling	0.0581	3.6493	0.7254	0.0141	0.3916	0.0261	0.4177	0.1072	0.0250	0.1322		1,538.3544	1,538.3544	0.0612	0.2439	1,612.5719
Vendor	5.9900e-003	0.2427	0.0666	9.8000e-004	0.0315	1.3500e-003	0.0328	9.0600e-003	1.2900e-003	0.0104		104.8109	104.8109	2.5700e-003	0.0154	109.4530
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1415**	**3.9456**	**1.4334**	**0.0169**	**0.6512**	**0.0286**	**0.6798**	**0.1768**	**0.0273**	**0.2041**		**1,828.7868**	**1,828.7868**	**0.0689**	**0.2646**	**1,909.3632**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	lb/day										lb/day					
Off-Road	4.9056	48.8170	43.1829	0.0867		2.3392	2.3392		2.1743	2.1743		8,370.3018	8,370.3018	2.3659		8,429.4484
Total	**4.9056**	**48.8170**	**43.1829**	**0.0867**		**2.3392**	**2.3392**		**2.1743**	**2.1743**		**8,370.3018**	**8,370.3018**	**2.3659**		**8,429.4484**

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	lb/day										lb/day					
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
Vendor	0.0300	1.2135	0.3329	4.8900e-003	0.1574	6.7500e-003	0.1642	0.0453	6.4600e-003	0.0518		524.0543	524.0543	0.0128	0.0768	547.2649
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1074**	**1.2671**	**0.9744**	**6.7300e-003**	**0.3855**	**7.8800e-003**	**0.3934**	**0.1058**	**7.5000e-003**	**0.1133**		**709.6758**	**709.6758**	**0.0180**	**0.0821**	**734.6033**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Substation Installation - 2023

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	lb/day										lb/day					
Off-Road	4.9056	48.8170	43.1829	0.0867		2.3392	2.3392		2.1743	2.1743	0.0000	8,370.3018	8,370.3018	2.3659		8,429.4484
Total	**4.9056**	**48.8170**	**43.1829**	**0.0867**		**2.3392**	**2.3392**		**2.1743**	**2.1743**	**0.0000**	**8,370.3018**	**8,370.3018**	**2.3659**		**8,429.4484**

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	lb/day										lb/day					
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
Vendor	0.0300	1.2135	0.3329	4.8900e-003	0.1574	6.7500e-003	0.1642	0.0453	6.4600e-003	0.0518		524.0543	524.0543	0.0128	0.0768	547.2649
Worker	0.0775	0.0536	0.6414	1.8400e-003	0.2281	1.1300e-003	0.2292	0.0605	1.0400e-003	0.0615		185.6215	185.6215	5.1500e-003	5.3300e-003	187.3384
Total	**0.1074**	**1.2671**	**0.9744**	**6.7300e-003**	**0.3855**	**7.8800e-003**	**0.3934**	**0.1058**	**7.5000e-003**	**0.1133**		**709.6758**	**709.6758**	**0.0180**	**0.0821**	**734.6033**

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Mitigated	0.0129	0.0171	0.2038	5.5000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		55.6221	55.6221	1.8300e-003	1.7100e-003	56.1790
Unmitigated	0.0129	0.0171	0.2038	5.5000e-004	0.0684	3.4000e-004	0.0688	0.0181	3.2000e-004	0.0185		55.6221	55.6221	1.8300e-003	1.7100e-003	56.1790

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	0.00	7.83	0.00	4,685	4,685
Total	0.00	7.83	0.00	4,685	4,685

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
Refrigerated Warehouse-No	15.00	7.50	8.50	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
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
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

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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
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**

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	lb/day										lb/day					
Mitigated	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Unmitigated	1.0418	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.1105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-004	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Total	**1.0418**	**4.0000e-005**	**4.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5200e-003**	**9.5200e-003**	**2.0000e-005**		**0.0101**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.1105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.1000e-004	4.0000e-005	4.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5200e-003	9.5200e-003	2.0000e-005		0.0101
Total	**1.0418**	**4.0000e-005**	**4.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5200e-003**	**9.5200e-003**	**2.0000e-005**		**0.0101**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	1	8.00	1	231	0.29	Diesel

Sunridge Energy Storage Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Cranes	0.3514	3.8155	1.8344	5.7700e-003		0.1593	0.1593		0.1466	0.1466	0.0000	558.8192	558.8192	0.1807		563.3376
Total	**0.3514**	**3.8155**	**1.8344**	**5.7700e-003**		**0.1593**	**0.1593**		**0.1466**	**0.1466**	**0.0000**	**558.8192**	**558.8192**	**0.1807**		**563.3376**

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

Breaker (kV)	Number of Breakers	Pounds of SF_6	MT of SF_6	Leak Rate	Global Warming Potential	MT CO_2e
138	6	2,400	1.089	1%	23,900	130.09

Attachment B

Health Risk Assessment Outputs

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Lithium Ion Battery Emergency Response Guide 4

TAC Emission Calculations

Pollutant	Vol %	Volume (Liter)	MW (g/mol)	Single Cell Emissions (grams)	Single Cell Rate (g/s)	Single Cell Rate (lbs/hr)	Module Rate (g/s)	Module Rate (lbs/hr)	Megapack Rate (g/s)	Megapack Rate (lbs/hr)
Primary Compounds										
H2	24	1.5	2.0	1.00E-01	2.78E-05	2.20E-04	3.51E-01	2.79E+00	5.97E+00	4.74E+01
CO	34	2.1	28.0	2.60E+00	7.22E-04	5.73E-03	9.13E+00	7.24E+01	1.55E+02	1.23E+03
CO2	28	1.7	44.0	3.30E+00	9.17E-04	7.28E-03	1.16E+01	9.19E+01	1.97E+02	1.56E+03
CH4	4	0.2	16.0	2.00E-01	5.56E-05	4.41E-04	7.02E-01	5.57E+00	1.19E+01	9.47E+01
C2H4	5	0.3	28.1	4.00E-01	1.11E-04	8.82E-04	1.40E+00	1.11E+01	2.39E+01	1.89E+02
C2H6	0	0.0	30.1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C3H6	0.004	0.0	42.1	0.00E+00	1.58E-07	1.26E-06	2.00E-03	1.59E-02	3.40E-02	2.70E-01
C3H8	0	0.0	44.1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C4	0	0.0	58.1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C5	0	0.0	72.2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nitrogen	5	0.3	28.0	4.00E-01	1.11E-04	8.82E-04	1.40E+00	1.11E+01	2.39E+01	1.89E+02
Total	100.0	6.1	25.8	7.00E+00	1.94E-03	1.54E-02	2.46E+01	1.95E+02	4.18E+02	3.32E+03
Trace compounds	ppm	MW								
HF	500	20.0		2.70E-03	7.50E-07	5.95E-06	9.48E-03	7.52E-02	1.61E-01	1.28E+00
HCL	1,000	36.4		9.90E-03	2.75E-06	2.18E-05	3.47E-02	2.76E-01	5.91E-01	4.69E+00
HCN	1,600	27.0		1.20E-02	3.33E-06	2.65E-05	4.21E-02	3.34E-01	7.16E-01	5.68E+00
Methanol	32	27.0		2.30E-04	6.39E-08	5.07E-07	8.07E-04	6.41E-03	1.37E-02	1.09E-01
Styrene	1	104.0		2.80E-05	7.78E-09	6.17E-08	9.83E-05	7.80E-04	1.67E-03	1.33E-02
Toluene	3,500	92.0		8.70E-02	2.42E-05	1.92E-04	3.05E-01	2.42E+00	5.19E+00	4.12E+01

Assumes: Atmospheric Normal Temperature and Pressure (298.15K and 100.3 kpa)

Vol % and single cell emissions total provided by manufacturer

Standard temperature and pressure (STP) is defined as 0°C (273.15 K) and 1 atm of pressure

Number of cells in multicell event 12,636

Time of event, minutes 60

Gas compsitions based on Tesla and DNVGL studies, maximum values measured.

Risk Assessment

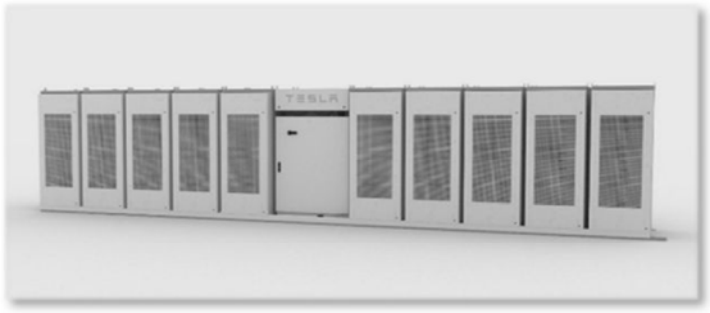
Cell

Pollutant	Name	TAC	Max lbs/hr	Proximity Factor	Acute REL (ug/m3)	Prioritization Score
H2	Hydrogen	No	-	1.00	-	-
CO	Carbon monoxide	Yes	5.73E-03	1.00	23,000	3.74E-04
CO2	Carbon Dioxide	No	-	1.00	-	-
CH4	Methane	No	-	1.00	-	-
C2H4	Ethylene	No	-	1.00	-	-
C2H6	Ethane	No	-	1.00	-	-
C3H6	Propene	No	-	1.00	-	-
C3H8	Propane	No	-	1.00	-	-
C4	Butanes	No	-	1.00	-	-
C5	Pentanes	No	-	1.00	-	-
HF	Hydrogen Fluoride	Yes	5.95E-06	1.00	240	3.72E-05
HCL	Hydrochloric acid	Yes	2.18E-05	1.00	2,100	1.56E-05
HCN	Hydrogen cyanide	Yes	2.65E-05	1.00	340	1.17E-04
Methanol	Methanol	Yes	5.07E-07	1.00	28,000	2.72E-08
Styrene	Styrene	Yes	6.17E-08	1.00	21,000	4.41E-09
Toluene	Toluene	Yes	1.92E-04	1.00	37,000	7.78E-06
Total						5.51E-04

Module

Pollutant	Name	TAC	Max lbs/hr	Proximity Factor	Acute REL (ug/m3)	Prioritization Score
H2	Hydrogen	No	-	1.00	-	-
CO	Carbon monoxide	Yes	72.43	1.00	23,000	4.72E-01
CO2	Carbon Dioxide	No	-	1.00	-	-
CH4	Methane	No	-	1.00	-	-
C2H4	Ethylene	No	-	1.00	-	-
C2H6	Ethane	No	-	1.00	-	-
C3H6	Propene	No	-	1.00	-	-
C3H8	Propane	No	-	1.00	-	-
C4	Butanes	No	-	1.00	-	-
C5	Pentanes	No	-	1.00	-	-
HF	Hydrogen Fluoride	Yes	0.08	1.00	240	4.70E-02
HCL	Hydrochloric acid	Yes	0.28	1.00	2,100	1.97E-02
HCN	Hydrogen cyanide	Yes	0.33	1.00	340	1.47E-01
Methanol	Methanol	Yes	0.01	1.00	28,000	3.43E-05
Styrene	Styrene	Yes	0.001	1.00	21,000	5.57E-06
Toluene	Toluene	Yes	2.42	1.00	37,000	9.83E-03
Total						6.96E-01

Notes: Assumes proximity adjustment factor of 1 (0 < 100 meters), a normalization factor of 25, and dispersion adjustment factor of 60.
Calculated in accordance with the CAPCOA Facility Prioritization Guidelines for Air Toxics Hot Spits Program (August 2016).



Lithium-Ion Battery Emergency Response Guide

For Tesla Energy Products including Powerwall, Powerpack, and Megapack – TS-00004027 – Rev. 2.3

PRODUCT SPECIFICATIONS

All specifications and descriptions contained in this document are verified to be accurate at the time of printing. However, because continuous improvement is a goal at Tesla, we reserve the right to make product or documentation modifications at any time, with or without notice.

The images provided in this document are for demonstration purposes only. Depending on product version and market region, details may appear slightly different.

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ERRORS OR OMISSIONS

To communicate any inaccuracies or omissions in this manual, please send an email to: *energy-pubs@tesla.com*.

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1 Introduction and Scope

This guide serves as a resource for emergency responders and Authorities Having Jurisdiction (AHJs) with regards to safety surrounding Tesla Energy Products. This guide should also be reviewed by customers, site managers, and operators to ensure a clear understanding of the hazards and procedures to follow in case of emergencies.

Tesla Energy Products are defined as rechargeable lithium-ion battery energy storage products designed, manufactured, and sold by Tesla, and include products such as Megapack, Powerpack, and Powerwall. The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. TESLA, INC. makes no warranty, expressed or implied, with respect to this information.

2 Company, Contact, & Product Info

2.1 Identification of Company and Contact Information

Table 1. Company and Contact Information

Products	Tesla Energy Products, designed for residential, commercial, and industrial/utility energy applications, and modules and sub-assemblies that can be installed in such products. Descriptions and specific part numbers are listed in *Product Descriptions* on page 7.	
Locations	Headquarters (USA)	3500 Deer Creek Road Palo Alto, CA 94304 USA Tel. No. +1 650-681-5000 (do not use for emergencies; see below)
	Europe and Africa	Burgemeester Stramanweg 122 1101EN Amsterdam, The Netherlands Tel. No. +31 20 258 3916 (do not use for emergencies; see below)
	Australia and Asia	Level-14, 15 Blue Street North Sydney NSW, 2060, Australia Tel: 1800 686 705 (do not use for emergencies; see below)
	Manufacturer (USA)	3500 Deer Creek Road Palo Alto, CA 94304 USA Tel. No. +1 650-681-5000 (do not use for emergencies; see below)
Emergency Contacts	CHEMTREC	For Hazardous Materials (or Dangerous Goods) Incidents: Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Contract Number: CCN204273 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)
	Tesla Energy Technical Support Contacts	Powerpack & Megapack: • Hotline numbers (24h / 7d coverage): ◦ North America: +1 650-681-6060

		◦ Japan: 0120 975 214 ◦ Asia/Pacific: +61 2 432 802 81 ◦ France: +33 173218702 ◦ The Netherlands: +31 208885332 ◦ Slovenia: +38 617778699 ◦ South Africa: +27 213004878 ◦ Switzerland: +41 445155607 ◦ United Kingdom: +44 1628450645 • Email support: *IndustrialStorageSupport@tesla.com* Powerwall: • Hotline numbers (24h / 7d coverage): ◦ Australia: 1800 646 952 ◦ Germany: +49 8955 0520235 ◦ Italy: +39 028 731 7132 ◦ North America: +(877) 798-3752 ◦ South Africa: +27 87 550 3480 ◦ Switzerland: +41 618 553028 ◦ United Kingdom: +44 162 845 0630 • Email support: ◦ North America: *PowerwallSupportNA@tesla.com* ◦ Australia/New Zealand: *PowerwallSupportNA@tesla.com* ◦ Japan: *EnergyCustomerSupportJP@tesla.com* ◦ Europe/Middle East/Africa: *EnergySupportEmea@tesla.com*

2.2 SDS Information

Safety Data Sheets (SDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an “article.” OSHA has defined “article” as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities (e.g., minute or trace amounts) of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

Tesla Energy Products referenced herein meet the OSHA definition of “article.” Thus, they are exempt from the requirements of the Hazard Communication Standard and do not require an SDS. However, SDS are available for non-cell materials found inside these products.

Tesla Energy Products contain sealed lithium-ion battery cells (cells) that are similar to rechargeable batteries in many consumer electronic products. Cells are individually hermetically sealed cylinders approximately 21 mm in diameter and 70 mm in length.

Cells each contain lithium-ion electrodes, which can be composed of:

- Lithium Nickel Cobalt Aluminum Oxide (NCA material), LiNixCoyAlzO2;
- Lithium Nickel, Manganese, Cobalt Oxide (NMC material) LiNixMnyCozO2;
- Lithium Nickel, Manganese Oxide (NMO material), LiNixMnyO2
- Lithium Cobalt Oxide, LiCoO2;
- or a mixture of these compounds

THE CELLS AND BATTERIES DO NOT CONTAIN METALLIC LITHIUM. Individual cells have nominal voltages of approximately 3.6 V.

Tesla Energy Products also include sealed thermal management systems containing coolants and/or refrigerants. Safety Data Sheets (SDS) are available for these liquid materials. Scan the QR code below or go directly to *MSDSonline* and enter the Product Name or CAS# to find the appropriate datasheet.

Figure 1. MSDSonline - SDS Search

Table 2. Thermal Contents

Non-Cell Materials with SDS found in Tesla Energy Products	Approximate Quantity
Ethylene glycol 50/50 mixture with water	Powerwall 1: 1.6 L of 50/50 mixture Powerwall 2: 2.3 L of 50/50 mixture Powerpack 1: 22 L of 50/50 mixture Powerpack 2: 26 L of 50/50 mixture Powerpack Inverter: 11 L of 50/50 mixture Powerpack Pod module: none Megapack: 540 L of 50/50 mixture Megapack battery module: 20 L of 50/50 mixture
R-134a: 1,1,1,2-Tetrafluoroethane refrigerant	Powerwall 1, 2: none Powerpack 1, 2: 400 g Powerpack Pod module: none

Non-Cell Materials with SDS found in Tesla Energy Products	Approximate Quantity
	Megapack: 7.6 kg Megapack battery module: none

2.3 Product Descriptions

Individual lithium-ion cells are connected to form modules. Modules are battery sub-assemblies. These modules are installed in Tesla Energy Products. Approximate specifications of Tesla Energy Products are listed below.

2.3.1 Powerwall

Powerwall is Tesla's battery system for residential and light commercial use.

NOTE: Images below are indicative representations designed to assist with product identification. Existing product models may vary.

Figure 2. Example of a Powerwall Installed on a House

Table 3. Approximate Powerwall Specifications

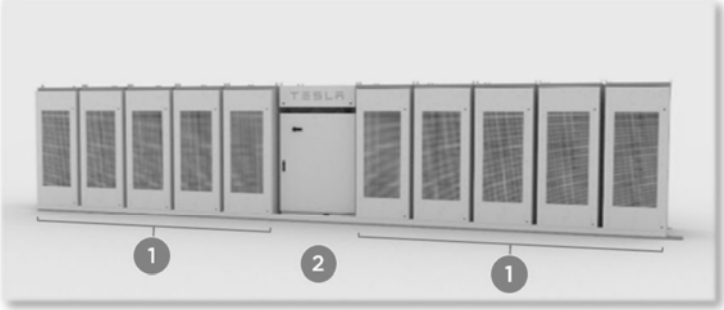
Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
Powerwall 1 Versions								
1050100-x*y*-z*	POWERWALL, 2KW, 7KWH	<30 (DC)	450 (DC)	-	95 kg (210 lb)	130 cm (51 in)	86 cm (34 in)	18 cm (7 in)
1067000- x*y*-z*	POWERWALL, 3.3KW, 7KWH	<30 (DC)	450 (DC)	-	95 kg (210 lb)	130 cm (51 in)	86 cm (34 in)	18 cm (7 in)
1068000-x*y*-z*	POWERWALL, 6.6KW, 10KWH	<30 (DC)	450 (DC)	-	101 kg (223 lb)	130 cm (51 in)	86 cm (34 in)	18 cm (7 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Powerwall 2 Versions								
1092170-x*y*-z*	AC POWERWALL	<30 (DC)	450 (DC)	300 (AC)	114 kg (251.3 lb)	115 cm (45.3 in)	75 cm (29.6 in)	14 cm (5.75 in)
1112170-x*y*-z*	DC POWERWALL	<30 (DC)	450 (DC)	-	115 kg (254 lb)	112 cm (44 in)	74 cm (29 in)	14 cm (5.5 in)
2012170-x*-y*-z*	AC POWERWALL	<30 (DC)	450 (DC)	300 (AC)	114 kg (251.3 lb)	115 cm (45.3 in)	75 cm (29.6 in)	14 cm (5.75 in)

Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
3012170-x*-y*-z*	AC POWERWALL	<30 (DC)	450 (DC)	300 (AC)	114 kg (251.3 lb)	115 cm (45.3 in)	75 cm (29.6 in)	14 cm (5.75 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								

2.3.2 Powerpack

Powerpack is Tesla's energy storage system for commercial and industrial use.

NOTE: Images below are indicative representations designed to assist with product identification. Existing product models may vary.



1. Powerpack Units (include lithium-ion cells)
2. Powerpack Inverter

Figure 3. Example of a Powerpack Site

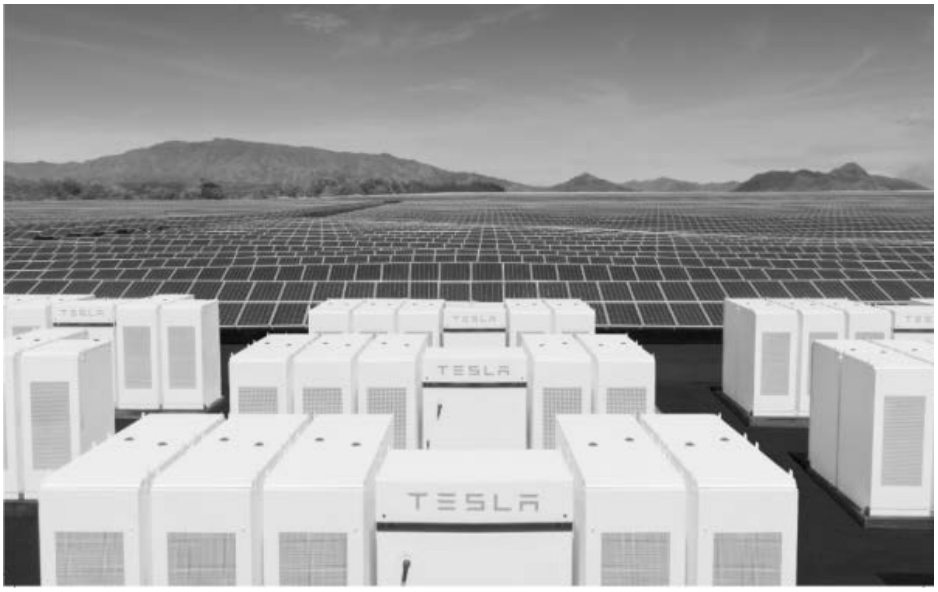


Table 4. Approximate Powerpack Specifications

Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
Powerpack 1 Versions								
1047404-x*y*-z*	POWERPACK (2hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	1680 kg (3700 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
1060119-x*y*-z*	POWERPACK (4hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	1665 kg (3670 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
1121229-x*y*-z*	POWERPACK (4hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Powerpack 1.5 Version								
1089288-x*y*-z*	POWERPACK 1.5 C/2 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	1622 kg (3575 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Powerpack 2 / 2.5 Versions								
1083931-x*y*-z* (1130518-x*y*-z*)	POWERPACK 2,C/4 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)

Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
1083932-x*y*-z*	POWERPACK 2,C/2 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)
1490025-x*y*-z*	POWERPACK 2.5,C/4 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)
1490026-x*y*-z*	POWERPACK 2.5,C/2 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)
1490027-x*y*-z*	POWERPACK 2.5,C/2 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51.5 in)	82 cm (32.5 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Spare Parts								
N/A	POWERPACK POD MODULE	<30 (DC)	960 (DC)	N/A	98 kg (215 lb)	12 cm (5 in)	100 cm (39 ½ in)	75 cm (29 ½ in)

2.3.3 Megapack

Megapack is Tesla's all-in-one utility-scale energy storage system.

NOTE: Images below are indicative representations designed to assist with product identification. Existing product models may vary.

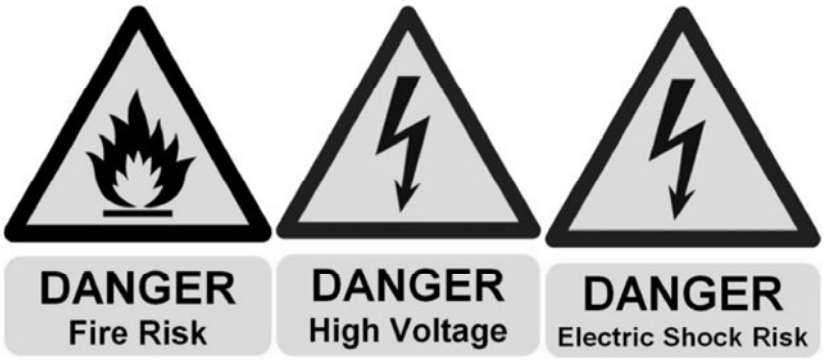
Figure 4. Example of a Megapack Site

Table 5. Approximate Megapack Specifications

Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
Megapack (all versions - dimensions as measured for enclosure envelope for 1462965-x*y*-z*)								
1462965-x*y*-z*	MEGAPACK	<450 (DC)	960 (DC)	518 (AC)	25,400 kg (56,000 lb) (max)	252.2 cm (99 ¼ in)	716.8 cm (282 ¼ in) (length)	165.9 cm (65 ¼ in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Spare Parts								
N/A	MEGAPACK BATTERY MODULE	<450 (DC)	960 (DC)	N/A	1,085 kg (2,400 lb)	66 cm (26 in)	81 cm (32 in)	149 cm (59 ½ in)

3 Handling, Use, & Hazard Precautions

3.1 General Precautions



The products described by this document are dangerous if mishandled. Injury to property or person, including loss of life is possible if mishandled.

Tesla Energy Products contain lithium-ion batteries. A battery is a source of energy. Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product. An internal or external short circuit can cause significant overheating and provide an ignition source resulting in fire, including surrounding materials or materials within the cell or battery. Under normal conditions of use, the electrode materials and electrolyte they contain are not exposed, provided the battery integrity is maintained and seals remain intact. Risk of exposure may occur only in cases of abuse (mechanical, thermal, electrical).

3.2 High-Voltage Hazards

Under normal conditions of use, provided that a Tesla Energy Product enclosure remains closed, handling the product does not pose an electrical hazard. Numerous safeguards have been designed into Tesla Energy Products to help ensure that the high voltage battery is kept safe and secure as a result of a number of expected abuse conditions. All of the constituent component battery cells are sealed within the product as sub-groups within enclosures (Pods for Powerpack or battery modules for Megapack).

In Powerpack and Megapack, the exterior of each Pod/battery module is isolated from internal components and connectors are touch-safe. Pods are then installed in a rigid metal enclosure, which is isolated from high voltage. Megapack battery modules are similarly sealed and cannot be accessed from the exterior. In the Powerwall, the module is contained within the unit and not accessible to non-Tesla personnel. Access to these components is limited to Tesla-authorized personnel only.

A Tesla Energy Product may pose a significant high voltage and electrocution risk if the outer enclosure, Pod / battery module enclosures and/or safety circuits have been compromised or have been significantly damaged. A battery pack, even in a normally discharged condition, is likely to contain substantial electrical charge and can cause injury or death if mishandled. If a Tesla Energy Product has been significantly visibly damaged or its enclosure compromised, practice appropriate high-voltage preventative measures until the danger has been assessed (and dissipated if necessary).

WARNING: NEVER CUT INTO A SEALED TESLA ENERGY PRODUCT ENCLOSURE due to the high voltage and electrocution risks.

For proper installation / removal instructions please contact the Tesla Service Support team (*Identification of Company and Contact Information* on page 3).

3.3 Hazards Associated with Mechanical Damage

Mechanical damage to Tesla Energy Products can result in a number of hazardous conditions (discussed below) including:

- Leaked battery pack coolant (see *Hazards Associated with Leaked Coolant* on page 16)
- Leaked refrigerant (Powerpack System and Megapack only, see *Hazards Associated with Leaked Refrigerant (Powerpack and Megapack Only)* on page 16)
- Leaked cell electrolyte (see *Hazards Associated with Leaked Electrolyte* on page 17)
- Rapid heating of individual cells due to exothermic reaction of constituent materials (cell thermal runaway), venting of cells, and propagation of self-heating and thermal runaway reactions to neighboring cells.
- Fire

To prevent mechanical damage to Tesla Energy Products, these items should be stored in their original packaging when not in use or prior to being installed (see *Storage Precautions* on page 25).

3.4 Hazards Associated with Elevated Temperature Exposure

Tesla Energy Products are designed to withstand operating ambient temperatures up to 50°C (122°F), with up to 100% operating humidity (condensing), and storage temperatures up to 60°C (140°F) and <95% relative humidity (non-condensing) for up to 24 hours without affecting the health of the unit.

Prolonged exposure of Tesla Energy Products to temperatures beyond that can drive battery cells into thermal runaway and result in a fire. Exposure of battery packs to localized heat sources such as flames could result in cell thermal runaway reactions and should be avoided.

3.5 Hazards Associated with Leaked Coolant

Thermal management of Tesla Energy Products is achieved via liquid cooling using a 50/50 mixture of ethylene glycol and water. A typical Powerpack battery unit includes about 26 L of coolant (Powerpack 2/2.5) or about 22 L of coolant (Powerpack 1). A typical Powerwall unit includes about 1.6 L of coolant (Powerwall 1) or about 2.3 L of coolant (Powerwall 2). The Powerpack Inverter (fully populated) includes about 11 L of coolant. A typical Megapack includes about 540 L of coolant. Mechanical damage of a Tesla Energy Product that has been installed could result in leakage of the coolant. The fluid is blue in color and does not emit a strong odor.

For information regarding the toxicological hazards associated with ethylene glycol, as well as ecological effects and disposal considerations, refer to the specific Safety Data Sheet (SDS) for battery coolant.

Extended exposure of a Tesla Energy Product to leaked coolant could cause additional damage to the product such as corrosion and compromise of protection electronics.

3.6 Hazards Associated with Leaked Refrigerant (Powerpack and Megapack Only)

The Powerpack and Megapack thermal management system includes 400 g and 7.6 kg respectively of R-134a: 1,1,1,2-Tetrafluoroethane refrigerant in a sealed system. Mechanical damage of a Powerpack or Megapack could result in a release of the refrigerant. Such a release would appear similar to the emission of smoke.

For information regarding the toxicological hazards associated with R-134a, as well as ecological effects and disposal considerations, refer to the specific Safety Data Sheet (SDS) for R-134a.

3.7 Hazards Associated with Leaked Electrolyte

The electrolyte within constituent cells includes a volatile hydrocarbon-based liquid and a dissolved lithium salt (which is a source of lithium ions) such as lithium hexafluorophosphate. The electrolyte in Tesla Energy Products' cells is largely absorbed in electrodes within individual sealed cells. The electrolyte reacts with those materials and is consumed during normal operation of the batteries. As such, the absence of free liquid electrolyte makes it impractical to report the volume of electrolyte within Tesla Energy Products.

The possibility of a spill of electrolyte from Tesla Energy Products is very remote. Electrolyte can be extracted from a single cell using a centrifuge, or under some extreme abuse conditions such as a severe crush. However, it is very difficult to mechanically damage cells in such a way as to cause leakage of electrolyte. Even if a single cell were damaged in a manner that could cause electrolyte leakage, it is extremely difficult to cause a leak from more than a few cells due to any incident. Furthermore, cells are connected into modules which are placed within a sealed steel compartmentalized enclosure. Each compartment has the capacity to contain liquid from a large number of individual cells. For the electrolyte liquid to come into contact with a user of a Tesla Energy Product, the external enclosure, the Pod/battery module enclosure, and the cell would have to be severely mechanically damaged. As such, Tesla Energy Products are deemed not to pose a liquid electrolyte release hazard.

Any released electrolyte liquid is likely to evaporate rapidly, leaving a white salt residue. Evaporated electrolyte is flammable and will contain alkyl-carbonate compounds. Leaked electrolyte is colorless and characterized by a sweet odor. If an odor is obvious, evacuate or clear the surrounding area and ventilate the area.

WARNING: AVOID CONTACT WITH ELECTROLYTE.

Leaked electrolyte solution is flammable and corrosive / irritating to the eyes and skin. If a liquid is observed that is suspected electrolyte, ventilate the area and avoid contact with the liquid until a positive identification can be made and sufficient protective equipment can be obtained (eye, skin, and respiratory protection). Chemical classifier strips can be used to identify the spilled liquid (electrolyte will contain petroleum/organic solvent and fluoride compounds).

In case of an electrolyte leak, the following protective equipment is recommended: an air purifying respirator with organic vapor/acid gas cartridges (e.g. P100 masks), safety goggles or a full-face respirator, and safety gloves (Butyl rubber or laminated film (e.g., Silver Shield)). Protective clothing should be worn. Use a dry absorbent material to clean up a spill.

NOTE: An acceptable exposure concentration of electrolyte has not been identified by the American Council of Governmental Industrial Hygienists (ACGIH). In case of electrolyte leakage from the battery, the oral (rat) LD50 is greater than 2 g/kg (estimated).

3.8 Hazards Associated with Vented Electrolyte

Lithium-ion cells are sealed units, and thus under normal usage conditions, venting of electrolyte should not occur. If subjected to abnormal heating or other abuse conditions, electrolyte and electrolyte decomposition products can vaporize and be vented from cells. Accumulation of liquid electrolyte is unlikely in the case of abnormal heating. Vented gases are a common early indicator of a thermal runaway reaction – an abnormal and hazardous condition.

If a suspicious odor is detected near a Tesla Energy Product, or, more generally, gases or smoke are observed escaping from a Tesla Energy Product, evacuate the area and notify a first responder team and/or the local fire department. Gases or smoke exiting a lithium-ion battery pack are likely flammable and could ignite unexpectedly as the condition that led to cell venting may also cause ignition of the vent gases. A venting Tesla Energy Product should only be approached with extreme caution by trained first responders equipped with appropriate personal protective equipment (PPE), as discussed in *Firefighter PPE* on page 22.

Cell vent gas composition will depend upon a number of factors, including cell composition, cell state of charge, and the cause of cell venting. Vent gases may include volatile organic compounds (VOCs) such as alkyl-carbonates, methane, ethylene, and ethane; hydrogen gas; carbon dioxide; carbon monoxide; soot; and particulates containing oxides of nickel, aluminum, lithium, copper, and cobalt. Additionally, phosphorus pentafluoride, POF3, and HF vapors may form.

WARNING: AVOID CONTACT WITH VENTED GASES.

Vented gases may irritate the eyes, skin, and throat. Cell vent gases are typically hot; upon exit from a cell, vent gas temperatures can exceed 600°C (1,110°F). Contact with hot gases can cause thermal burns. Vented electrolyte is flammable and may ignite on contact with a competent ignition source such as an open flame, spark, or a sufficiently heated surface. Vented electrolyte may also ignite on contact with cells undergoing a thermal runaway reaction.

4 In Case of Emergency

WARNING: In case of emergency, severe physical impact, or transportation accident, do not approach the product or open any of its doors.

WARNING: In case of severe physical impact or transportation accident, it may take time before any visible indication of an abnormal and hazardous condition (e.g. smoke or fire) can be observed. Contact Tesla Energy Technical Support for guidance (*Identification of Company and Contact Information* on page 3).

CAUTION: Response should only be performed by trained professionals.

4.1 During Storage or Operation

During storage or operation, cases of emergency include but are not limited to:

- Suspicious odor observed near a Tesla Energy Product
- Smoke or fire emanating from a Tesla Energy Product
- Severe physical impact on a Tesla Energy Product

In case of emergency, the following should be performed:

1. If possible, shut off the unit/system (see *Shutting Down in an Emergency* on page 23).
2. Evacuate the area.
3. If not already present, notify appropriately trained first responders, the local fire department, and any appointed subject matter expert (SME) if available.
4. Contact Tesla Energy Technical Support for guidance (*Identification of Company and Contact Information* on page 3).

4.2 During Transportation

During transportation, cases of emergency include but are not limited to:

- Suspicious odor observed near a Tesla Energy Product
- Smoke or fire emanating from a Tesla Energy Product
- Transportation accident causing a severe physical impact on a Tesla Energy Product
- Transportation accident leading to tipping over of a Tesla Energy Product

In case of emergency, the following should be performed:

1. If possible, move the unit/system to an open area and away from exposures (e.g. buildings, flammable material, or people).
2. Evacuate the area.
3. If signs of suspicious odor, smoke, or fire are detected, notify appropriately trained first responders, the local fire department, and any appointed subject matter expert (SME) if available.
4. Contact Tesla Energy Technical Support for guidance (*Identification of Company and Contact Information* on page 3).

5 Firefighting Measures

> **WARNING:** Response should only be performed by trained professionals. In the event of a response to a Tesla product fire or hazardous event, contact Tesla Energy Technical Support for guidance (*Identification of Company and Contact Information* on page 3).

5.1 Responding to a Venting Tesla Energy Product

Smoke or suspicious odor emanating from a Tesla Energy Product can be an indication of an abnormal and hazardous condition. Battery thermal runaway fires are preceded by a period of smoke. The smoke is likely flammable and may ignite at any time. If fire, smoke, or suspicious odor is observed emanating from a Tesla Energy Product at any time, the following should be performed:

1. If possible, **shut off the unit/system** (see *Shutting Down in an Emergency* on page 23).
2. **Evacuate the area.**

   > **WARNING:** When responding to a fire event with the **Powerpack System**, do not approach the Powerpack units from the front (door-side) or the rear. Perform all incident response from the sides of the units. Do not attempt to open the enclosure doors or come in contact with the units.

   > **WARNING:** When responding to a fire event with **Megapack**, do not approach the unit and attempt to open any doors. The doors are designed to remain shut, and built-in deflagration vents in the roof of the unit will vent any smoke and flame out of the top of the unit and front thermal system intake louvers.

3. If not already done, **contact Tesla Energy Technical Support** for assistance (*Identification of Company and Contact Information* on page 3).
4. **Maintain a safe distance from the unit and monitor** (*Defensive Firefighting* on page 22) for evidence of continued smoke venting or fire.

   > **WARNING:** There may be periods of up to three hours at a time during which the thermal runaway propagates from battery modules to battery modules. During such time, the battery may not generate visible signs of thermal event although the event can still be active and the battery can flare up.

   a. **If a fire has not developed** and only smoke is visible, take a defensive stance toward the system and be prepared to apply water spray.
   b. **If a fire develops**, take a defensive stance toward the burning unit and apply water spray to neighboring battery enclosures and exposures to further mitigate the spread of the hazard.

5. **Allow the battery pack to cool down** for a minimum of 12 hours after all fire and smoke has visibly subsided.
6. **Monitor the temperature** of the battery pack using a thermal imaging camera to determine if it is safe to interact with the unit.
7. Contact Tesla Energy Technical Support for next steps (*Identification of Company and Contact Information* on page 3).

5.2 Defensive Firefighting

Tesla's recommendation is to fight a Tesla Energy Product fire defensively. The fire crew should maintain a safe distance in any direction of at least:

- 5 m from Powerwall
- 10 m from Powerpack
- 20 m from Megapack

WARNING: Depending on the conditions of the event (such as location of the burning battery, wind speed and direction) a safe distance may be higher than those prescribed above.

The fire crew should allow the battery to burn itself out, during which it is recommended to apply water spray to neighboring battery enclosures and exposures to further mitigate the spread of the hazards rather than directly onto the burning unit. Applying water directly to the affected enclosure will not stop the thermal runaway event, as the fire will be located behind several layers of steel material, and direct application of water has shown to only delay the eventual combustion of the entire unit.

WARNING: In confined spaces, if water is used directly on the enclosure that is burning, electrolysis of water (splitting of water into hydrogen and oxygen) may contribute to the flammable gas mixture formed by venting cells, burning plastic, and burning of other combustibles.

Water spray has been deemed safe as an agent for use on exposed Tesla Energy Products. Water is considered the preferred agent for managing lithium-ion battery fires. Gaseous agents such as CO2, Halon, or dry chemical suppressants may temporarily suppress flaming of lithium-ion battery packs, but they will not cool lithium-ion batteries and will not limit the propagation of cell thermal runaway reactions. Metal fire suppressants such as LITH-X, graphite powder, or copper powder are not appropriate agents for suppressing fires involving lithium-ion battery packs as they are unlikely to be effective.

A battery fire may continue for several hours and it may take 24 hours or longer for the battery pack to cool after it has been fully consumed by a thermal runaway event. After all fire and smoke has visibly subsided for at least 12 hours, a thermal imaging camera can be used to actively measure the temperature of the unit and determine if it is safe to interact with.

5.3 Firefighter PPE

Firefighters should wear self-contained breathing apparatus (SCBA) and fire-protective turnout gear. Cells or batteries may flame or leak potentially hazardous organic vapors if exposed to excessive heat, fire, or overvoltage conditions. These vapors may include volatile organic compounds (VOCs), hydrogen gas, carbon dioxide, carbon monoxide, soot, and particulates containing oxides of nickel, aluminum, lithium, copper, and cobalt. Additionally, phosphorus pentafluoride, POF3, and HF vapors may form.

6 Shutting Down in an Emergency

WARNING: Shutting off power to a Tesla Energy Product does not de-energize the battery, and a shock hazard may still be present.

WARNING: If smoke or fire is visible, do not approach the product or open any of its doors.

WARNING: In case of flooding, stay out of the water if any part of the Tesla Energy Product or wiring is submerged.

To shut off the Powerpack System, Megapack, or Powerwall in an emergency, perform the appropriate steps and then contact Tesla (*Identification of Company and Contact Information* on page 3**):**

6.1 Powerpack System

1. If an external emergency stop (E-Stop) button or remote shutdown contact to the Powerpack is present, engage it.
2. If the Powerpack is serviced upstream by an external AC breaker or disconnect, open the breaker or disconnect.

6.2 Megapack

1. If an external E-Stop button or remote shutdown contact to the Megapack is present, engage it.
2. If the Megapack is serviced upstream by an external AC breaker or disconnect, open the breaker or disconnect.

6.3 Powerwall

1. If there is solar generation on-site, turn off each solar inverter, then turn off the AC breaker of each inverter.
2. If an E-Stop button or remote shutdown contact to the Powerwall is present, engage it.
3. Only if safe to do so, turn off each Powerwall using the on/off switch.
4. Turn off the AC breaker of each Powerwall.
5. If the emergency affects the rest of the site, turn off the entire site by opening the main service disconnect(s).

7 First Aid Measures

7.1 Electric Shock / Electrocution

Seek immediate medical assistance if an electrical shock or electrocution has occurred (or is suspected).

7.2 Contact with Leaked Electrolyte

The constituent battery cells are sealed. Contents of an open (broken) constituent battery cell can cause skin irritation and/or chemical burns. If materials from a ruptured or otherwise damaged cell or battery contact skin, flush immediately with water and wash affected area with soap and water. If a chemical burn occurs or if irritation persists, seek medical assistance.

For eye contact, flush with significant amounts of water for 15 minutes without rubbing and see a physician at once.

7.3 Inhalation of Electrolyte Vapors

If inhalation of electrolyte vapors occurs, move person into fresh air. If not breathing give artificial respiration and seek immediate medical assistance.

7.4 Vent Gas Inhalation

The constituent battery cells are sealed and venting of cells should not occur during normal use. If inhalation of vent gases occurs, move person into fresh air. If not breathing give artificial respiration. Seek immediate medical assistance.

8 Storage Precautions

Powerpack systems, Powerwalls, and sub-assemblies should be stored in approved packaging prior to installation. Megapack does not include packaging and can be stored as-shipped with a tarp.

Do not store Tesla Energy Products in a manner that allows terminals to short circuit (do not allow the formation of an electrically-conductive path).

Elevated temperatures can result in reduced battery service life. Tesla Energy Products can withstand ambient temperatures of -40°C to 60°C for up to 24 hours. However, Tesla Energy Products stored for longer than one month should be stored at ambient temperatures between -20°C and 30°C (-4°F and 86°F), at humidity <95%, and protected from condensation. Storing at temperatures outside the recommended range can result in degradation of product lifetime. Do not store Tesla Energy Products near heating equipment.

Ideally, a Tesla Energy Product should be stored at 50% state of charge (SOC) or less. Tesla Energy Products should not be stored for extended periods either at a full SOC or completely discharged since both conditions adversely impact battery life. Tesla Energy Products should not be stored untended for longer than twelve months since battery service life likely will be adversely impacted.

The storage area should be protected from flooding.

Long-term storage areas should be compliant with the appropriate local fire code requirements.

Acceptable storage density of battery packs and storage height of battery packs will be defined by the local authority having jurisdiction (AHJ). Requirements and limits will be based upon a number of factors including the structural and fire protection characteristics of the storage area and recommendations for fire protection promulgated by the National Fire Protection Association (NFPA) and similar organizations. At the time of this writing, no standard Commodity Classification has been defined for lithium-ion cells or battery packs (see 2016 NFPA 13: Standard for the Installation of Sprinkler Systems). Tesla products only have a 30-40 % state of charge (SOC) while in storage which reduces the energy impact on fire occurrences. As an example of the reduced energy, the 30% level has been determined to be acceptable for air flight shipping based upon extensive testing and analysis in conjunction with the FAA. Tesla recommends treating lithium-ion cells and batteries in packaging as equivalent to a Group A Plastic Commodity.

9 Damaged Product Handling

This section describes the handling, storage, and transportation of damaged Tesla Energy Products

If the event of damage to a Tesla Energy Product, contact Tesla immediately (*Identification of Company and Contact Information* on page 3**).**

If a Tesla Energy Product has been damaged (battery enclosure has been dented or compromised), it is possible that heating is occurring that may eventually lead to a fire. Damaged or opened cells/batteries can result in rapid heating (due to exothermic reaction of constituent materials), the release of flammable vapors, and propagation of self-heating and thermal runaway reactions to neighboring cells.

Before handling or transporting a damaged Tesla Energy Product, wait at least 24 hours. Smoke may be an indication that a thermal reaction is in progress. If no smoke, flame, sign of coolant leakage, or signs of heat has been observed for 24 hours, the Tesla Energy Product may be disconnected and moved to a safe location. To obtain specific instructions for evaluating, disconnecting, and preparing a damaged Tesla Energy Product for transport, please contact the Tesla Service team (*Identification of Company and Contact Information* on page 3).

A damaged Tesla Energy Product should be monitored during storage for evidence of smoke, flame, sign of coolant leakage, or signs of heat. If full-time monitoring of the Product is not possible (for example during extended storage), the Product should be moved to a safe storage location.

A safe storage location for a damaged battery will be free of flammable materials, accessible only by trained professionals, and 50 feet (15m) downwind of occupied structures. For example, a fenced, open yard may be an appropriate safe location. DO NOT STORE DAMAGED TESLA ENERGY PRODUCTS ADJACENT TO UNDAMAGED TESLA ENERGY PRODUCTS. It is possible that a damaged battery may sustain further damage during transportation and may lead to a fire. To further reduce this risk, handle the damaged battery with extreme caution.

10 Disposal Procedures

Tesla Energy lithium-ion batteries do not contain heavy metals such as lead, cadmium, or mercury.

The procedures below apply to Tesla Energy Products at the end of their life (EOL). For disposal after a fire or thermal event, please contact Tesla for guidance (*Identification of Company and Contact Information* on page 3).

Tesla Energy Products should be disposed of or recycled in accordance with local, state, and federal regulations. Note that regulations regarding disposal of batteries vary by jurisdiction. In the United States, batteries are classified as Universal Waste, and in addition, many individual states have specific regulations regarding disposal of battery packs. For example, in California, all batteries must be taken to a Universal Waste handler or authorized recycling facility.

Tesla Energy Products contain recyclable materials. Tesla strongly encourages recycling. At this time, when a Tesla product must be decommissioned, we request that it be returned to a Tesla facility for disassembly and further processing.

If disposing without return to Tesla, please consult with local, state and/or federal authorities on the appropriate methods for disposal and recycling. Tesla has confirmed that at least two recycling processors are capable of recycling Tesla battery products in North America and three in the Europe, the Middle East and Africa (EMEA) region.

11 Maintenance or Repair

Tesla requests all maintenance, service, and repairs of Tesla Energy Products be performed by Tesla-approved service personnel or Tesla authorized repair facilities. This includes all proactive and corrective maintenance over the lifetime of a Tesla Energy Product. Improper service or repair by personnel not approved nor authorized by Tesla could void the product's Limited Warranty, lead to failure of the Tesla Energy product, and potentially result in development of an unsafe condition and unexpected electrical events.

12 Transportation

Lithium-ion batteries are regulated as Class 9 Miscellaneous dangerous goods (also known as “hazardous materials”) pursuant to the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, International Air Transport Association (IATA) Dangerous Goods Regulations, the International Maritime Dangerous Goods (IMDG) Code, European Agreements concerning the International Carriage of Dangerous Goods by Rail (RID) and Road (ADR), and applicable national regulations such as the USA’s hazardous materials regulations (see 49 CFR 173.185). These regulations contain very specific packaging, labeling, marking, and documentation requirements. The regulations also require that individuals involved in the preparation of dangerous goods for transport be trained on how to properly package, label, mark and prepare shipping documents.

NOTE: Transportation regulations vary by region. To ensure compliant transportation, always refer to local regulations as applicable.

UN Number	3480
Proper Shipping Name	Lithium-Ion Batteries
Hazard Classification	Class 9 Miscellaneous
Packing Group	N/A

NOTE: The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. TESLA, INC. makes no warranty, expressed or implied, with respect to this information.

Revision History

Revision #	Date	Description
01	14-July-2015	ERG for Tesla Powerpack systems, Powerwalls, and Sub-assemblies
02	3-Sept-2015	Added part numbers, updated weights, voltages, and temperatures, clarified hazards associated with spilled electrolyte, updated storage requirements, updated warning label icons, updated packing group.
03	3-Oct-2016	Added part numbers, minor edits
04	30-June-2017	Added fire ground operations response for Powerpack 2, including approach; exhaust gases; and safety. Updated general product information and contacts, as well as part numbers and reman numbers
05	22-Oct 2018	Reformatted for ease of use and translation; removed Confidential status; corrected phone number for CHEMTREC
06	27-Feb-2019	Updated storage conditions and firefighting measures section to provide further context on response tactics to Tesla Energy Product fires. Adjusted formatting, included graphics for warnings and notices.
07	17-Dec-2019	Updates to contact information (Tesla contact), product specs section, leaked electrolyte section, and inclusion of Megapack throughout the document.
1.8	March 11, 2020	Fixed footer; fixed styles.
2.0	July 8, 2020	• Updated formatting • Updated product specs • Updated contact info • Corrected elevated temperature topic to include Megapack • Corrected name of Tesla Inverter to Powerpack Inverter • Separated information on shutting down into its own topic for visibility • Reorganized the Firefighting section for clarity • Updated language on re-ignition risks
2.1	August 28, 2020	Added spare parts specifications: • Megapack battery module • Powerpack Pod module
2.2	June 23, 2021	• Updated contact information in *Identification of Company and Contact Information* on page 3 • Updated specs according to updated products in *SDS Information* on page 4 • Added Powerwall part numbers to *SDS Information* on page 4 • Enhanced firefighting guidance: *Firefighting Measures* on page 21 • Added guidance in case of emergency: *In Case of Emergency* on page 19 • Added additional early signs of thermal runaway: *Hazards Associated with Vented Electrolyte* on page 17

Revision #	Date	Description
		• Updated Powerwall instructions in *Shutting Down in an Emergency* on page 23
2.3	July 28, 2021	• Added coolant volume for separately shipped Megapack battery modules (*SDS Information* on page 4) • Clarified firefighting guidance (*Firefighting Measures* on page 21) • Enhanced product identification information (*Product Descriptions* on page 7) • Simplified emergency shut-down procedures for Megapack and Powerpack (*Shutting Down in an Emergency* on page 23)

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Appendix B
Biological Resources Assessment

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SACRAMENTO, CALIFORNIA 95811
T 916.443.8335 F 916.443.5113

April 12, 2022 13267.05

Keleigh Wright
Vesper Energy
906 W McDermott Drive, Suite 116-366
Allen, Texas 75013

Subject: Biological Resources Assessment, Sunridge Energy Storage Project, Sacramento County, CA

Dear Ms. Wright,

Dudek is pleased to present Vesper Energy with this Biological Resources Assessment (BRA) letter report for the proposed Sunridge Energy Storage Project (Project). The purpose of this BRA is to describe the existing conditions and identify potential biological resource constraints within the Project site and vicinity. As part of BRA, Dudek biologists performed a reconnaissance-level field survey to identify and characterize resources within the Project area, with particular focus on the potential for occurrence of known special-status plant and wildlife species and other sensitive resources. This BRA includes a literature review and database search specific to biological resources; and a compilation of results as they apply to the Project and general vicinity (i.e., within five miles of the Project boundary) (Attachment A, Figures 1 and 2).

Sincerely,

Keith Carwana
Environmental Compliance Manager

Att.: *Attachment A- Figures 1-8*
Attachment B- Photo Record
Attachment C- Database Search Results
Attachment D- Observed Plant and Wildlife Species Compendium
Attachment E- Special-Status Species Potential to Occur in the Project Study Area
cc: *Morgan Kennedy- Dudek*
Anna (Godinho) Touchstone- Dudek

1 Introduction

1.1 Project Description

Sunridge Energy is proposing to construct an approximately 200-megawatt Battery Energy Storage System (BESS) within the 6-acre Project Study Area (PSA), which encompasses the entirety of the proposed Project boundary. The proposed Project will be composed of lithium-ion batteries installed in racks, inverters, medium-voltage (MV) transformers, a collector substation, and other associated equipment to interconnect with the existing and adjacent Sacramento Municipal Utility District (SMUD) Cordova Substation (Point of Interconnection [POI]). The batteries will be installed either in containers or in purpose-built enclosures. The containers or enclosures will have battery storage racks, with relay and communications systems for automated monitoring and managing of the batteries to ensure performance and safety. A battery management system will be provided to control the charging/discharging of the batteries, along with temperature monitoring and control of the individual battery cell temperature with an integrated cooling system. Batteries operate with direct current (DC) electricity, which must be converted to alternating current (AC) for compatibility with the existing electric grid. Power inverters to convert between AC and DC, along with transformers to step up the voltage, will be included as part of the Project.

1.2 Project Location

The PSA is comprised of approximately 5.69 acres consisting of Assessor's Parcel Number (APN) 067-0780-011-0000 within the incorporated City of Rancho Cordova, California. The PSA is currently undeveloped and is situated east of the Sunridge Park Village residential community and northeast of the SMUD Cordova Substation. The remainder of the surrounding area to the northeast, east, and southeast is undeveloped land (Attachment A, Figures 1- Project Location and Figure 2- Project Site). Photographs of the PSA and vicinity have been compiled in Attachment B, Photo Record.

Existing overhead high-voltage transmission lines connecting to the SMUD Cordova Substation are located to the north and northeast of the PSA. Canyonlands Drive, a two-lane paved road that provides access to the SMUD Cordova Substation, is located north of the PSA. A summary of details pertaining to the PSA and location are provided below:

- County: Sacramento
- City: Rancho Cordova
- Public Land Survey System: Township 8N, Range 7E, Sections 9, 10, 15, 16,
- U.S. Geological Survey (USGS) 7.5-Minute Quadrangle: Buffalo Creek
- Latitude, Longitude (decimal degrees): 38.554502°, -121.206732° (centroid)
- Assessor Parcel Numbers: 067-0780-011-0000
- Elevation Range (feet): 200 to 207 above mean sea level (amsl)
- PSA: Approximately 5.69 acres

2 Regulatory Overview

2.1 South Sacramento Habitat Conservation Plan

The South Sacramento Habitat Conservation Plan (SSHCP) ensures preservation of species, natural communities, and aquatic resources in the Plan Area; while providing an improved environmental permitting process for "Covered Activity" projects that impact listed special-status species, listed species habitats, or aquatic resources. The City of Rancho Cordova is one of the Land Use Authority Permittees under the SSHCP. The PSA falls within the SSHCP Plan Area. SSHCP does not expressly include utility-scale battery energy storage, however urban solar energy projects and other energy-generating projects within the UDA may be 'Covered Activities', provided they meet all SSHCP criteria.

Federal and State Permitting

The SSHCP, and its associated Aquatic Resources Program (ARP), provides local jurisdictions an abbreviated and streamlined process for federal and state permitting by agencies such as the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), and the U.S. Fish and Wildlife Service (USFWS). Specifically, the SSHCP is designed to comply with the following (Sacramento County 2018):

- Federal Endangered Species Act (FESA)
- California Endangered Species Act (CESA)
- Clean Water Act (CWA)
- California Porter-Cologne Water Quality Control Act
- California Fish and Game Code (FGC) Sections 1600–1616

The Plan is also consistent with other federal and state wildlife and natural resource–related laws and regulations, including

- Migratory Bird Treaty Act (MBTA)
- Bald and Golden Eagle Protection Act (BGEPA)
- California FGC Sections 3511, 4700, 5050, and 5515 (fully protected species)
- California FGC, Section 3503 (bird nests)
- California FGC, Section 3503.5 (birds of prey)
- National Environmental Policy Act (NEPA)
- California Environmental Quality Act (CEQA)
- National Historic Preservation Act (NHPA)

Covered Activities

"Covered Activities" are projects or activities that are allowable under SSHCP and can use the SSHCP to mitigate for impacts that result from implementation of the Covered Activity. Covered Activities within the Urban Development Area of the Plan Area include activities and projects related to urban development and associated infrastructure. Covered Activities also include actions within the proposed SSHCP Preserve System that are required to manage, monitor, enhance, and re-establish or establish habitat. The Project falls within the Covered Activity Category "Covered Activities in Preserve Setback in the UDA". The SSHCP also includes Avoidance and Minimization Measures (AMMs) as conditions on Covered Activities. Each condition contains several AMMs that are intended to eliminate or reduce direct or indirect effects to special-status species that could result from implementation of a Covered Activity. In addition, the SSHCP provides species-specific take and avoidance measures to avoid or minimize effects of Covered Activities on specific SSHCP Covered Species (Sacramento County 2018).

For Covered Activities in Preserve Setback in the UDA (i.e., EDGE-3), any Urban Development Covered Activities constructed adjacent to existing or planned Preserves must establish a minimum 50-foot-wide setback outward from the boundary of any existing Preserve or planned SSHCP Preserve. This minimum 50-foot-wide setback will function as a transition between Urban Development and the Preserve and must be managed to maintain the natural community of vegetation present in the adjacent Preserve. As much of the setback as possible should remain in the same natural habitat as the Preserve. Note that the area within a preserve setback will not be counted when calculating SSHCP fees for Project impacts, except where allowed Preserve Setback Covered Activities (e.g., bike paths) occur. Preserve Setbacks will not be used to mitigate impacts to SSHCP Covered Species modeled habitat (Sacramento County 2018).

Permit Process

Prior to submitting an SSHCP permit application package, a third-party entity (i.e., the Project) is encouraged to have a pre-application meeting with their appropriate Land Use Authority Permittee (i.e., City or Rancho Cordova). The purpose of the pre-submittal meeting is to allow the Land Use Authority Permittees to explain what information must be assembled for a specific project in support of the SSHCP permit application. Pre-application meetings are recommended early in the process to discuss SSCHP criteria and to avoid delays in project approvals. A Land Use Authority Permittee may require a fee for these pre-application meetings and/or pre-submitted project proposal review (Sacramento County 2018).

Next, the third-party entity should submit their SSHCP permit application package to the Land Use Authority Permittee that has land use jurisdiction over their proposed project. Only the Land Use Authority Permittee with land use jurisdiction over a proposed project may extend coverage under the SSHCP permits. The Land Use Authority Permittee will then review the SSHCP permit application for consistency with all the SSHCP requirements. Based on this review and a determination of SSHCP requirements, the Land Use Authority Permittee can establish conditions of approval specifying SSHCP conditions and SSHCP development fee requirements. Each Land Use Authority Permittee is responsible for ensuring that Covered Activities fully comply with the terms of the Plan (Sacramento County 2018).

Lastly, note that many private Third-Party Project Proponent Covered Activities will require a land use approval and be subject to the CEQA. For such Covered Activities, review of SSHCP permit applications should generally be undertaken concurrently with the CEQA environmental review. To facilitate this approach, the Land Use Authority

Permittee should generally request that Third-Party Project Proponents submit an SSHCP permit application package as part of the land use approval application and CEQA process (Sacramento County 2018).

3 Methods

3.1 Literature Review and Database Search

Dudek completed a database and literature evaluation of special-status biological and aquatic resources that have the potential PSA. The database and literature evaluation assessed the "PSA vicinity", which specifically includes the general and nearby areas adjacent to the PSA, not to exceed up to five miles. Resources and search parameters used during the desktop-level review include are detailed below. Outputs of database results have been compiled in Attachment C, Database Results.

- CDFW California Natural Diversity Database (CNDDB) nine USGS 7.5-minute Quad search of *Buffalo Creek, Carbondale, Carmichael, Citrus Heights, Clarksville, Elk Grove, Folsom, Folsom SE,* and *Sloughhouse*; and within a five-mile buffer search for special-status species (CDFW 2021a).
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants nine USGS 7.5-minute Quad search of *Buffalo Creek, Carmichael, Citrus Heights, Elk Grove, Florin, Folsom, Rio Linda, Sacramento East, and Sloughhouse* (CNPS 2021a).
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer geospatial database (FEMA 2021).
- Google Earth current and historical aerial imagery (Google Earth 2021).
- National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat (EFH) West Coast Data Inventory via ArcGIS (NOAA 2021).
- Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2021).
- The SSHCP (Sacramento County 2018).
- USFWS Environmental Conservation Online System Threatened and Endangered Species Active Critical Habitat Report data via ArcGIS (USFWS 2021a).
- USFWS Information for Planning and Consultation (IPaC) Trust Resource Report for the PSA (USFWS 2021c).
- USFWS National Wetlands Inventory (NWI) Mapper of historical wetland data (USFWS 2021c).
- USGS National Hydrography Dataset (NHD) to assess potential surface water features occurring in the PSA vicinity (USGS 2021b).

In Addition, Dudek reviewed secondary resources such as the Calflora database, the Jepson Herbarium online for vegetation and specialty soil resources occurring in Sacramento County, and the CNPS Manual of California Vegetation Online for vegetation community descriptions and classification attributes (Calflora 2021; Jepson eFlora 2021; CNPS 2021b).

3.2 Reconnaissance-Level Field Survey

Dudek biologist Anna Godinho conducted a reconnaissance-level biological field survey of the PSA on December 6, 2021. The survey was conducted from 1053 to 1330 with the following conditions present: 50°Farhenit (F) to 59°Farhenit (F), no wind, and 100% cloud cover. The purpose of the field survey was to determine baseline and site status by map existing vegetation communities and land covers (i.e., specifically those modeled within the SSHCP), identify special-status plant or wildlife species, to determine the likelihood of special-status plant or wildlife species to occur on the PSA based on present habitat and condition/suitability of the habitat (Attachment C, Table of Special-Status Species with Potential to Occur), and identify commonly occurring plant or wildlife species within the PSA (Attachment D, Observed Plant and Wildlife Species Compendium). No protocol-level surveys were conducted as part of this preliminary field evaluation.

Concurrent with the reconnaissance-level biological field surveys, Dudek performed a preliminary aquatic resources field assessment to visually identify and map potential aquatic resources within or adjacent to the PSA that would potentially be subject to regulation under federal CWA Sections 401 and 404, California FGC Section 1600, or under the provisions of the Porter-Cologne Water Quality Act.

4 Results

4.1 Regional Setting and Land Use

The PSA is in the eastern portion of the City of Rancho Cordova, CA, approximately 16 aerial miles east of the City of Sacramento, CA. Residential development and the SMUD Cordova Substation are located to the west and south of the PSA, respectively. Sunridge Park is to the north of the PSA. The area immediately east of the PSA, and the vicinity surrounding the PSA is generally flat, undeveloped land, composed of annual grassland and agricultural fields.

4.2 Climate and Rainfall

The PSA is in a semi-arid climate where average annual temperatures range from approximately 53°F to 92°F, and the average annual precipitation is 18.15 inches. On average, the months with the highest rainfall are January and February, and July has the least precipitation (WRCC 2021). According to data from the Prairie City Weather Station, the total precipitation recorded from April 2020 through August 2020, was between 12.84 and 13.63 inches, approximately 70 to 75% of normal (CDEC 2021). Therefore, the PSA region had below normal hydrological conditions in the year preceding the biological resource surveys.

4.3 Soil and Terrain

The PSA is in the eastern Central Valley. The PSA is generally flat with elevations ranging from approximately 200 feet amsl in the western portion of the PSA, to 210 feet amsl in the eastern portion of the PSA.

According to the NRCS, one soil unit was mapped within the PSA: Redding Gravelly Loam, 0 to 8 percent slopes. The Redding Soil Series consists of moderately deep to ‘duripan’, well or moderately well drained soils that formed in alluvium derived from mixed sources. They are on nearly level or dissected fan remnants with

slopes that are 0 to 30 percent. These soils are well or moderately well drained, have very low to high runoff, and very slow to slow permeability. Natural vegetation within Redding soils are typically composed of annual grasses and forbs. Vernal pools are common in Redding soils where slopes are 0 to 3 percent. (Attachment A, Figure 3- Soils) (USDA 2021a).

4.4 Hydrology and Watershed

The PSA occurs within the Valley-American Hydrologic Unit, in the Morrison Creek Area, and the Florin Subarea watershed (USGS 2021) (Attachment A, Figure 4- Hydrologic Setting). The Morrison Creek area drains approximately 27,586 acres of Sacramento County in a westerly direction, through a mix of urban and undeveloped areas (UC Davis 2022). Specifically, Morrison Creek flows generally west and southwest from Sierra Nevada Foothills, before flowing into Laguna Creek, west of the PSA. Laguna Creek is a tributary to the Sacramento River, which flows into San Francisco Bay, approximately 47 miles southwest of the PSA.

NWI has not mapped any aquatic resources within the PSA. NWI has mapped one riverine feature immediately west of the PSA (i.e., R4SBC: 'R'- riverine, '4'- intermittent, 'SB'- streambed, 'C'- seasonally flooded). In addition, NWI has mapped numerous other aquatic resources in the vicinity of the PSA, including Freshwater Emergent Wetland, Freshwater Forested/Shrub Wetland, Freshwater Pond, and Riverine (USFWS 2021c) (Attachment A, Figure 4- Hydrologic Setting).

Furthermore, The SSHCP shows one vernal pool mapped within the PSA, in the eastern vicinity adjacent to the Sacramento Valley Conservancy open space preserve (Sacramento County 2018) (Attachment A, Figure 5- SSHCP Modeled Land Covers).

The PSA is in the FEMA National Flood Hazard Layer "Zone X- Area of Minimal Flood Hazard" (FEMA 2021).

4.5 Vegetation Communities and Land Cover Types

Several vegetation communities and land cover types, including aquatic environments, were mapped within the PSA. Dudek mapped vegetation communities and land covers, including aquatic environments, within the PSA while conducting the reconnaissance-level biological field surveys, and classified them using CDFW's California Natural Community List (CDFW 2021b), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2021b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types). Vegetation communities and land covers mapped in the field by Dudek include disturbed habitat, non-native grassland, and urban/developed land (Attachment A, Figures 6- Vegetation Communities and Land Cover Types). Vegetation communities and land covers mapped in the PSA are discussed in more detail below.

4.5.1 Disturbed

During the reconnaissance-level biological field survey Dudek mapped 0.34 acre of disturbed land cover. This land cover type is located along the southern and eastern boundaries of the PSA (Attachment A, Figure 6- Vegetation Communities and Land Cover Types). The disturbed land cover type is defined as open-space area that have been subject to previous or on-going disturbances such as along roadsides, trails, and parking lots. Scraped or graded land is included in this land cover type. The disturbed land cover type is vegetated with diverse weedy flora. These

areas are of special concern as they tend to harbor and facilitate the spread of invasive plant species. Some of the vascular plant species associated with the disturbed land cover and that were observed within the PSA Italian plumeless thistle (*Carduus pycnocephalus*), stinkwort (*Dittrichia graveolons*), burclover (*Medicago polymorpha*), and stork's bill species (*Erodium* ssp.).

4.5.2 Non-Native Grassland

During the reconnaissance-level biological field survey Dudek mapped 5.18 acres of non-native grassland vegetation community. This vegetation community is located throughout the extent of the PSA (Attachment A, Figure 6- Vegetation Communities and Land Cover Types). Non-native grassland is an annual herbaceous vegetation community characterized mostly by naturalized annual grass and forb species. Its composition varies with geographic and land use factors, such as rainfall, temperature, elevation, slope, aspect, grazing and other herbivory, and fire frequency and duration. In this region, non-native grassland is associated with several other naturally occurring communities and land cover types, including vernal pools. Some of the plant species associate with this non-native grassland that were observed within the PSA include pappose tarweed (*Centromadia parryi*) and Owyhee mudwort (*Limosella acaulis*).

Non-native grasslands also provide suitable foraging habitat for species such as Swainson's hawk (*Buteo swainsonii*), and white-tailed kite (*Elanus leucurus*), as discussed in Section 4.7.4, Other Sensitive Resources below.

4.5.3 Urban/Developed

During the reconnaissance-level biological field survey Dudek mapped 0.17 acre of urban/developed land cover. This land cover type is concentrated in the northern vicinity of the PSA, along the PSA boundary at Canyonlands Drive (Attachment A, Figure 6- Vegetation Communities and Land Cover Types). This land cover type refers to areas that have been constructed on or otherwise physically altered to the point where vegetation is no longer present.

4.5.4 Aquatic Environments

A formal aquatic resources delineation was conducted within the PSA concurrently with the reconnaissance-level biological filed survey (Vesper 2022). The field delineation mapped three aquatic environment types (i.e., aquatic resources), including vernal pools and a stormwater control ditch (Attachment A, Figure 7- Aquatic Resources Delineation Overview). Each resource is discussed more specifically below.

Stormwater Control Ditch

There are two ditches, totaling approximately 0.039 acres (569.3 linear feet), within the PSA. One ditch is located along the northern boundary of the PSA, paralleling Canyonlands Road; the other ditch is located along the southwestern boundary of the PSA, adjacent to the SMUD Cordova Substation (Figure 5, Aquatic Resources). The earthen ditches are human-made features with intermittent hydrology intended for stormwater control. The ditch features both exhibited a break in slope, yet no Ordinary High Water Mark (OHWM) was observable. The ditches were dry at the time of the field delineation, and there is no associated continuous riparian corridor within or adjacent to the PSA (Vesper 2022).

Vernal Pools

There are three vernal pools, totaling approximately 0.066 acre, within the PSA (Vesper 2022). Vernal pools are seasonal ephemeral wetlands that typically fill and dry each year. In the Sacramento Valley region, they form in shallow depressions, within grassland communities, that are underlain with a soil or a soil layer impermeable to water. In California's Mediterranean climate (rainy winter months followed by a hot, dry season), vernal pool soils typically become wetted in November. Water collects in the depressions and stands during late winter and early spring, then recedes as temperatures rise and rainfall diminishes. The soil, however, remains moist through April and May, then it desiccates and stays dry until the cycle begins again (Sacramento County 2018).

Vernal pools provide habitat for rare and endangered animals such as vernal pool tadpole shrimp (*Lepidurus packardi*), vernal pool fairy shrimp (*Branchinecta lynchi),* and several amphibians species (e.g., western spadefoot toad [*Spea hammondii*] and California tiger salamander [*Ambystoma californiense*]). Vernal pools also support several migratory birds in the winter. A specific group of plant taxa occupies vernal pools, most of which are annuals capable of slow underwater growth in winter and rapid development and reproduction in spring after the water is gone but before soils dry (Sacramento County 2018).

4.6 Observed Plant and Wildlife Species

A total of 19 plant species, consisting of 4 (21%) native species and 15 (79%) non-native species, were observed within the PSA during reconnaissance-level biological field surveys.

A total of eight native wildlife species were recorded within the PSA during reconnaissance-level biological field surveys. A full list of plant and wildlife species observed within the PSA is compiled in Attachment E, Observed Plant and Wildlife Species Compendium. No special-status plant or wildlife species were detected during the reconnaissance-level biological field surveys conducted within the PSA.

Note that the reconnaissance-level biological field surveys were conducted during the winter season, which resulted in detection and identification of most perennial plant species that may occur in the PSA. Due to the timing of the surveys, annual species that bloom in spring, summer, and early fall, as well as cryptic perennials, may not have been detectable. Additional potential limitations of the field surveys include a diurnal bias for most wildlife species. Surveys were conducted during the daytime to maximize visibility and detection of plants and most animals. As such, birds represent the largest component of vertebrate fauna recorded during the surveys, as they are usually most active during daytime hours. In contrast, daytime surveys usually result in few observations of mammals, many of which may only be active at night, particularly rodent and bat species. Therefore, identification of mammals primarily relied on detection of surface sign such as scat, burrows, and tracks. Many species of reptiles and amphibians are similarly nocturnal and/or secretive in their habits and are difficult to observe using standard meandering transects. However, despite these limitations, the survey performed, in conjunction with the literature review and database search, were adequate to determine the habitat types and suitability for potential common and special-status species occurrences with the PSA.

4.7 Sensitive Communities

4.7.1 Aquatic Environments

Aquatic resources are considered a sensitive community/habitat. Aquatic resources were identified within the PSA and are described in Section 4.5.4 above.

4.7.2 Designated Critical Habitat / Essential Fish Habitat

No Designated Critical Habitat (DCH) was identified with the PSA (USFWS 2021a).

No EFH was identified within the PSA (NOAA 2021).

4.7.3 Sensitive Natural Communities

Northern Hardpan Vernal Pool

During the desktop and literature evaluation, Northern Hardpan Vernal Pool, a sensitive natural community, was identified as occurring within and adjacent to the PSA (Attachment A, Figure 9- CNDDB Occurrences) (CDFW 2021a). Northern Hardpan Vernal Pool is California state listed sensitive natural community. A vernal pool complex is a set of naturally occurring pools in proximity to one another. Intervening non-pool terrain within a vernal pool complex is commonly referred to as upland, and often includes wetland or partially wetland swales that can interconnect pools within the complex. Vernal pool complexes of low, medium, and high density occur within the PSA and adjacent vicinity, as described in Section 4.5.4 above. Vernal pools in this region have the potential to provide habitat to a variety of federally listed plant and wildlife species, as discussed below in Section 4.7.4 Special Status Species Habitat, and Section 4.8 Special Status Plants and Wildlife. No other sensitive natural communities were identified within the PSA.

4.7.4 Other Sensitive Resources

Special-Status Species Habitat

The Project site provides suitable habitat for special-status plant and wildlife species, as well as commonly known species to the region. Development within or adjacent to special-status species habitat, if present, would require regulatory compliance. Further information pertaining to Project specific special-status species and habitat within or adjacent to the PSA is discussed below in Section 4.8 Special-Status Plants and Wildlife, and Section 5 Conclusions.

Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats), and provide non-migrant wildlife the opportunity to move within their home range for food, cover, reproduction, and refuge. Given the existing vegetation within the PSA (i.e., dominant non-native grassland) and the adjacency to Sacramento Valley Conservancy open space preserve bordering to the east and others in the surrounding vicinity,

the PSA does provide wildlife corridor and habitat linkage value. The Sacramento Valley Conservancy open space preserve and surrounding preserve systems is discussed further below.

4.8 Special-Status Plants and Wildlife

Special-status plant and wildlife species are defined as those that are (1) listed, proposed for listing, or candidates for listing as “threatened” or “endangered” under FESA; (2) listed or candidates for listing as "threatened” or “endangered” under the California Endangered Species Act (CESA); (3) state fully protected species; (4) CDFW Species of Special Concern (SSC); or (5) species listed on the CNPS Inventory of Rare and Endangered Plants with a California Rare Plant Rank (CRPR) of 1 or 2.

Dudek biologists determined the potential for special-status plant and wildlife species to occur within the PSA based on a review of habitat types, soils, and elevation preferences, as well as the known geographic range and nearest occurrence records of each species. No protocol-level surveys for special-status species were conducted within the PSA. Based on the literature review, database searches, and the field surveys, a total of 19 special-status plant species, and 24 special-status wildlife species were identified as potentially occurring within five miles of the PSA. Of these, a total of two are known to occur within the PSA and are discussed further below. (Attachment C, Table of Special-Status Species with Potential to Occur).

4.8.1 Special-Status Plants

Based on the literature review and database search, a total of 19 special-status plant species have known occurrences within five miles of the PSA. Of these, a total of eight special-status plant species were determined to have a low, moderate, or high potential to occur within the PSA including dwarf downingia (*Downingia pusilla*), Tuolumne button-celery (*Eryngium pinnatisectum),* Boggs Lake hedge-hyssop (*Gratiola heterosepala),* Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii),* legenere (*Legenere limosa),* pincushion navarretia (*Navarretia myersii* ssp. *myersii),* slender Orcutt grass (*Orcuttia tenuis),* Sacramento Orcutt grass (*Orcuttia viscida).* The remaining 11 special-status plant species were removed from further consideration due to lack of suitable habitat within or adjacent to the PSA, no known occurrences within five miles of the PSA, and/or because the PSA is outside of the species’ known geographic or elevation range. Special-status plant species, their potential to occur in the PSA, and associated regulatory status can be referenced in Attachment E, table E1. Special-Status Species Potential to Occur in the Project Study Area. No special-status plant species were observed during the reconnaissance-level biological field survey.

4.8.2 Special-Status Wildlife

Based on the literature review and database search, a total of 24 special-status wildlife species have known occurrences within the PSA and/or within the five miles of the PSA. Of these, a total of 13 special-status wildlife species were determined to have a low, moderate, or high potential for occurrence and/or known occurrences within the PSA including California tiger salamander (*Ambystoma californiense),* western spadefoot (*Spea hammondii),* tricolored blackbird (*Agelaius tricolor),* grasshopper sparrow (*Ammodramus savannarum),* golden eagle (*Aquila chrysaetos),* burrowing owl (*Athene cunicularia),* Swainson's hawk*,* white-tailed kite*,* pallid bat (*Antrozous pallidus),* American badger (*Taxidea taxus),* Conservancy fairy shrimp (*Branchinecta conservation),* vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi).* The remaining 11 special-status wildlife species were removed from further consideration due to lack of suitable habitat within or

adjacent to the PSA, no known occurrences within five miles of the PSA, and/or because the PSA is outside of the species' known geographic or elevation range. Special-status wildlife species, their potential to occur in the PSA, and associated regulatory status can be referenced in Attachment E, table E1. Special-Status Species Potential to Occur in the Project Study Area. No special-status wildlife species were observed during the reconnaissance-level biological field survey.

5 Conclusions

Aquatic environments, specifically three vernal pools (0.066 acre), are present within the PSA. The vernal pools within the PSA are located on the eastern edge of the PSA boundary, adjacent to the Sacramento Valley Conservancy open space preserve. As such, the Project would be required to implement a minimum of a 50-foot-wide setback. This 50-foot-wide setback would provide the required avoidance from direct impacts of the preserve, as well as the vernal pool resources.

The following state and/or federally listed special-status plant species have a moderate to high potential to occur within the PSA: Boggs Lake hedge-hyssop, Slender Orcutt grass, and Sacramento Orcutt grass. Habitat for these species includes vernal pools and seasonal wetlands, that are often present within the non-native annual grasslands (i.e., valley grasslands) in the region. Impacts to these special-status plants would require compliance with CESA and FESA, as well as with other related laws and regulations, through the SSHCP. Boggs Lake hedge-hyssop, Slender Orcutt grass, and Sacramento Orcutt grass are all Covered Species under the SSHCP. For the remaining special-status plant species with a low potential to occur, each is noted as having a CRPR rarity ranking, and no federal or state rank. As such, Project impacts would be required through the AMMs implemented through the CEQA process.

The following state and/or federally listed special-status wildlife species have known occurrences within the PSA: western spadefoot toad and vernal pool tadpole shrimp. Listed special-status species with a low, moderate, and high potential to occur in the PSA: California tiger salamander, tricolored blackbird, golden eagle, grasshopper sparrow, burrowing owl, Swainson's hawk, white-tailed kite, pallid bat, American badger, Conservancy fairy shrimp, and vernal pool fairy shrimp. Impacts to these special-status wildlife and/or their habitat would require compliance with CESA and FESA, as well as with other related laws and regulations, through the SSHCP.

To obtain coverage through the SSHCP, it is recommended that the third-party entity (i.e., the Project) first initiate a pre-application meeting with the Land Use Authority Permittee (i.e., City of Rancho Cordova). Assuming the third-party entity meets all criteria specific to the SSHCP, then the third-party entity should proceed with completing and submitting a SSHCP permit application package to the Land Use Authority Permittee. There are various requirements detailed in the SSHCP permit application, including but not limited to a completed USACE-level Aquatic Resources Delineation Report and other technical studies and reporting specific to listed species that are known to occur and/or have the potential to occur within a project area. It is recommended that review of SSHCP permit applications should generally be undertaken concurrently with the CEQA environmental review (Sacramento County 2018). Based on this review and a determination of SSHCP requirements, the Land Use Authority Permittee can establish conditions of approval specifying SSHCP conditions and SSHCP development fee requirements. Fees are land cover specific (not species specific). For example, for vegetation communities and land covers occurring within the PSA, currently under the SSHCP, valley grassland mitigates at $19,394 per acre, direct impacts to vernal pools mitigates at $209,567 per acre, and indirect impacts to vernal pools mitigates at $35,603 per acre. Lastly, each Land Use Authority Permittee is responsible for ensuring that Covered Activities fully comply with the terms of

the Plan. As such, each third-party entity is required to comply with all best management practices and AMMs as detailed in the SSHCP (Sacramento County 2018).

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USFWS. 2021c. *National Wetlands Inventory (NWI)*. Accessed December 2021. fws.gov/wetlands/NWI/index.html.

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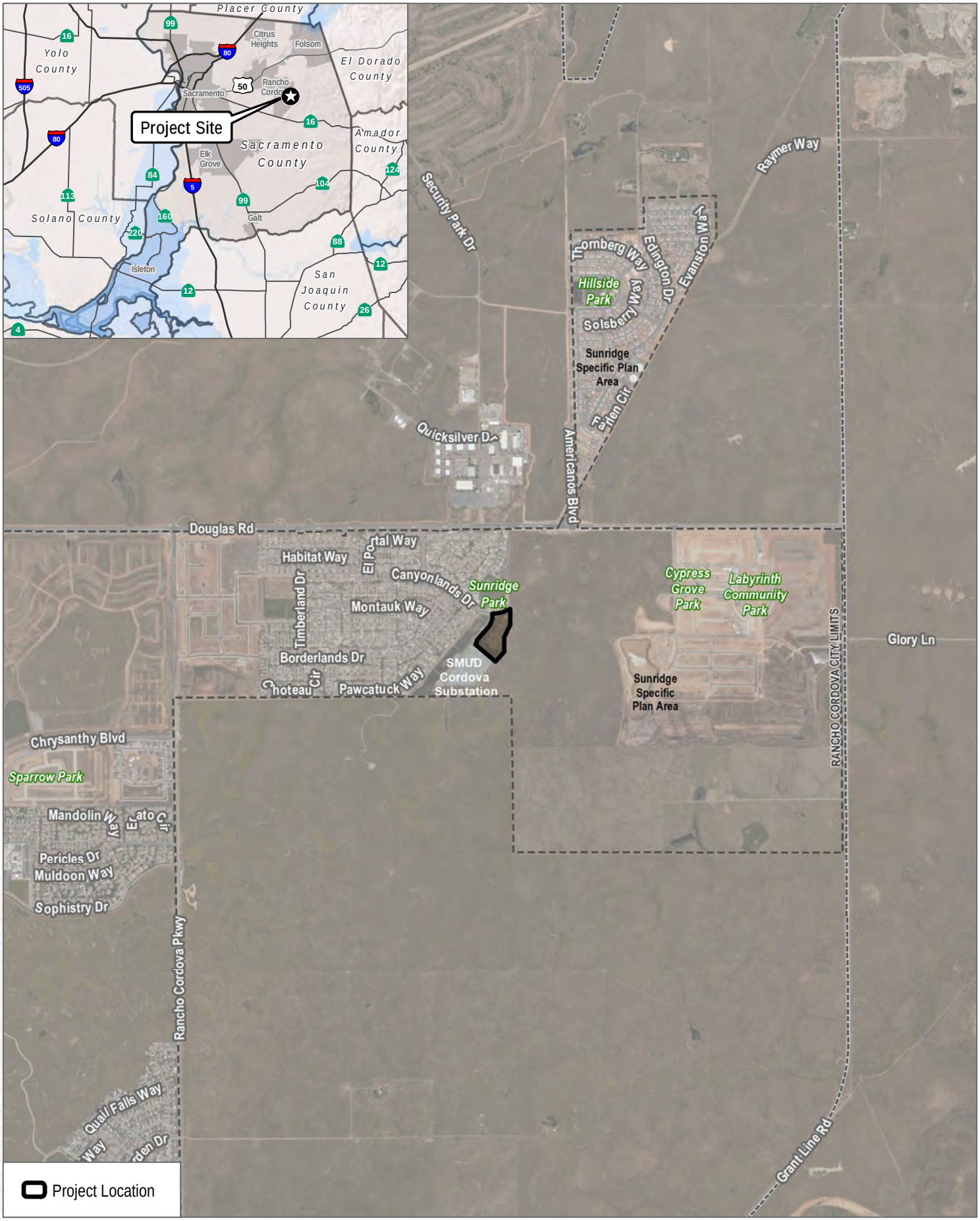
Attachment A
Figures 1-8



SOURCE: Bing Imagery 2021; County of Sacramento 2021; Open Street Maps 2019

FIGURE 1

Project Location

Biological Resources Assessment for the Sunridge Energy Storage Project

DUDEK

0 1,000 2,000 Feet

SOURCE: Bing imagery 2021; Sacramento County 2021; Open Street Maps 2019

DUDEK

0 250 500 Feet

FIGURE 2

Project Site

Biological Resources Assessment for the Sunridge Energy Storage Project

SOURCE: Bing imagery 2021; Open Street Maps 2019; USDA SSURGO 2009

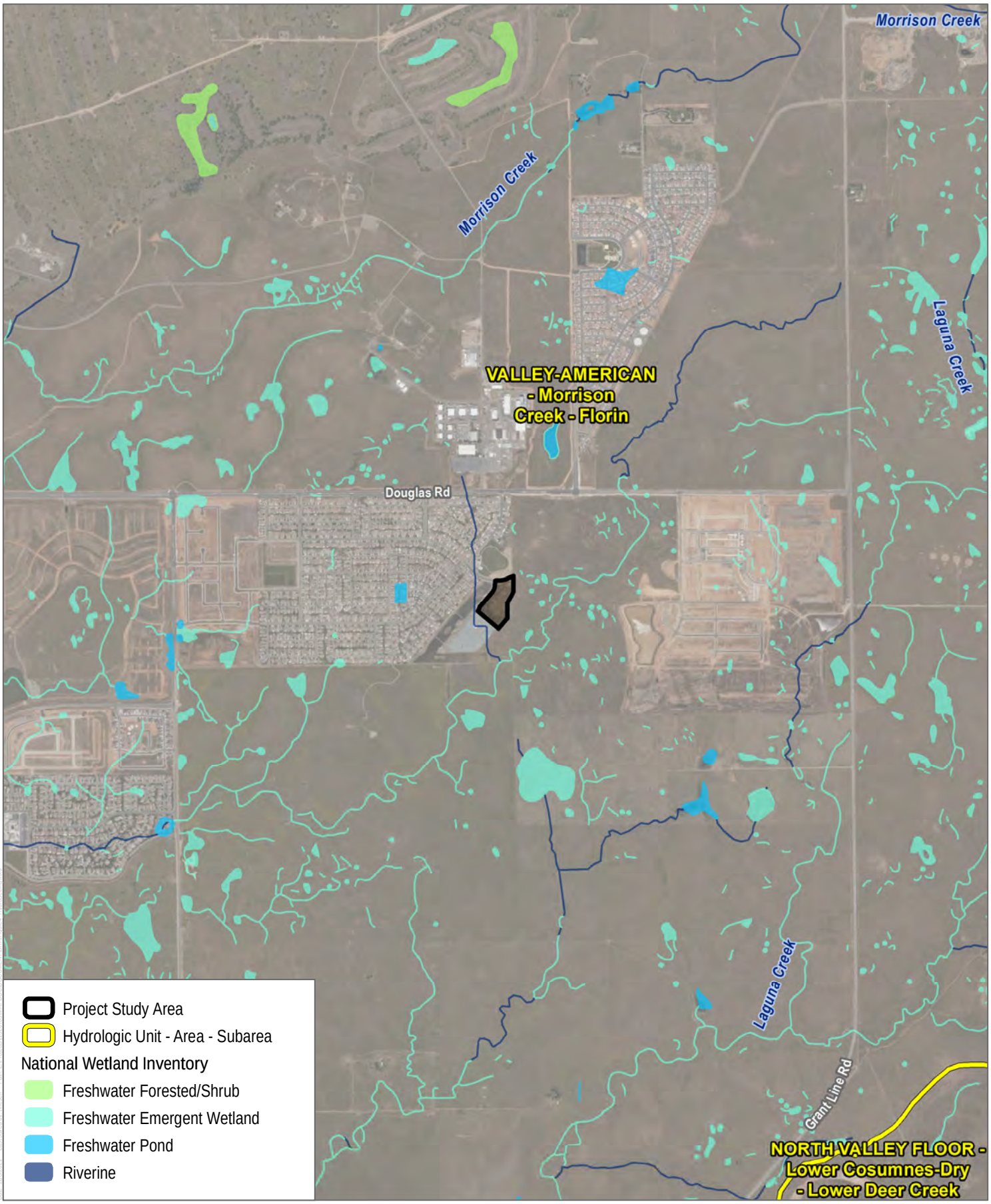
DUDEK

0 100 200 Feet

FIGURE 3

Soils

Biological Resources Assessment for the Sunridge Energy Storage Project



SOURCE: Bing Imagery 2021, USFWS 2019, USGS 2019

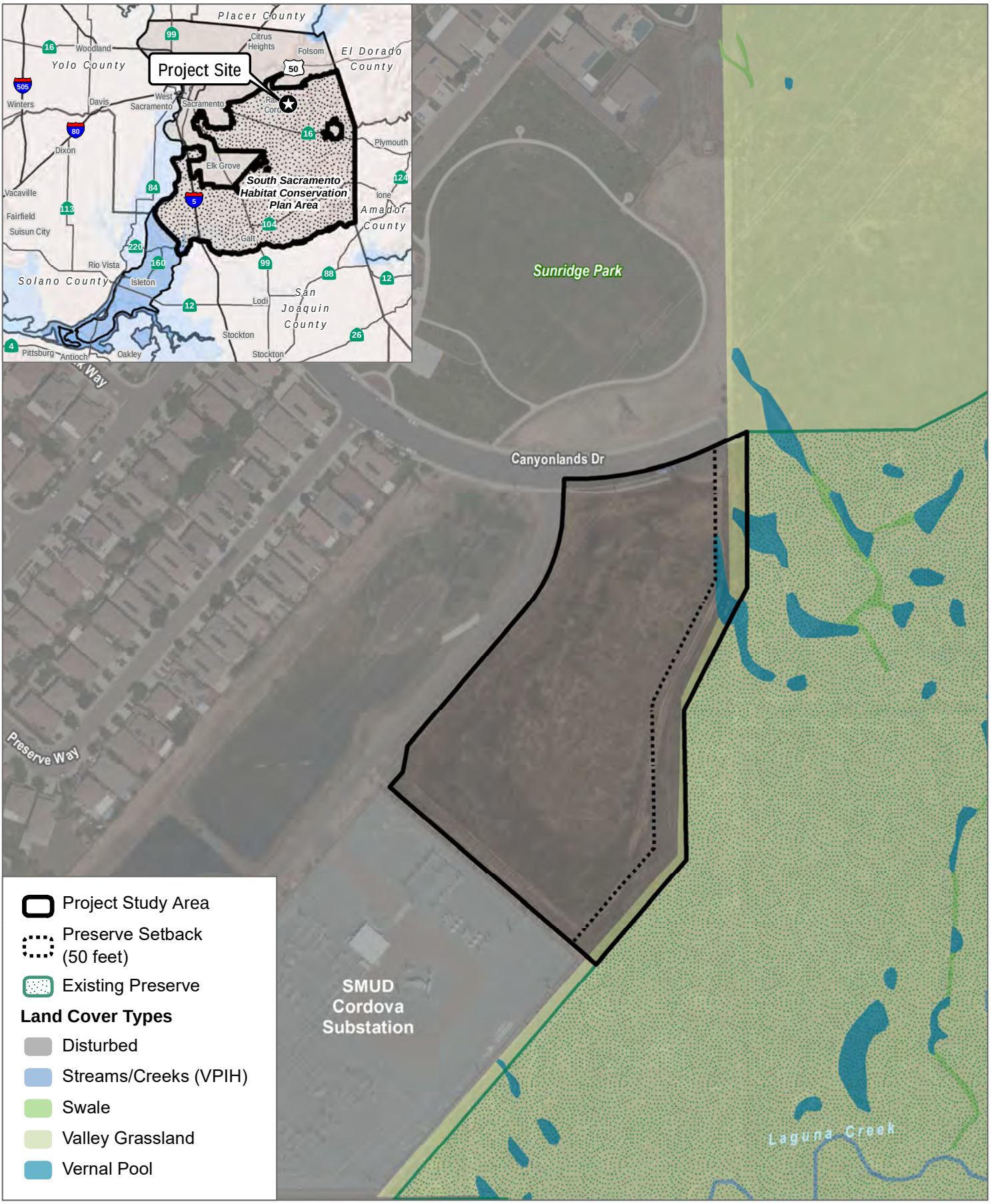
DUDEK

0 1,000 2,000 Feet

FIGURE 4

Hydrologic Setting

Biological Resources Assessment for the Sunridge Energy Storage Project



SOURCE: Bing Imagery 2021; County of Sacramento 2015

DUDEK

0 100 200 Feet

FIGURE 5

South Sacramento Habitat Conservation Plan (SSHCP)- Modeled Land Covers

Biological Resources Assessment for the Sunridge Energy Storage Project

SOURCE: Bing Imagery 2021; Open Street Maps 2019

DUDEK

0 50 100 Feet

FIGURE 6

Vegetation Communities and Land Cover Types

Biological Resources Evaluation for the Sunridge Energy Storage Project

SOURCE: Bing Imagery 2021; Open Street Maps 2019

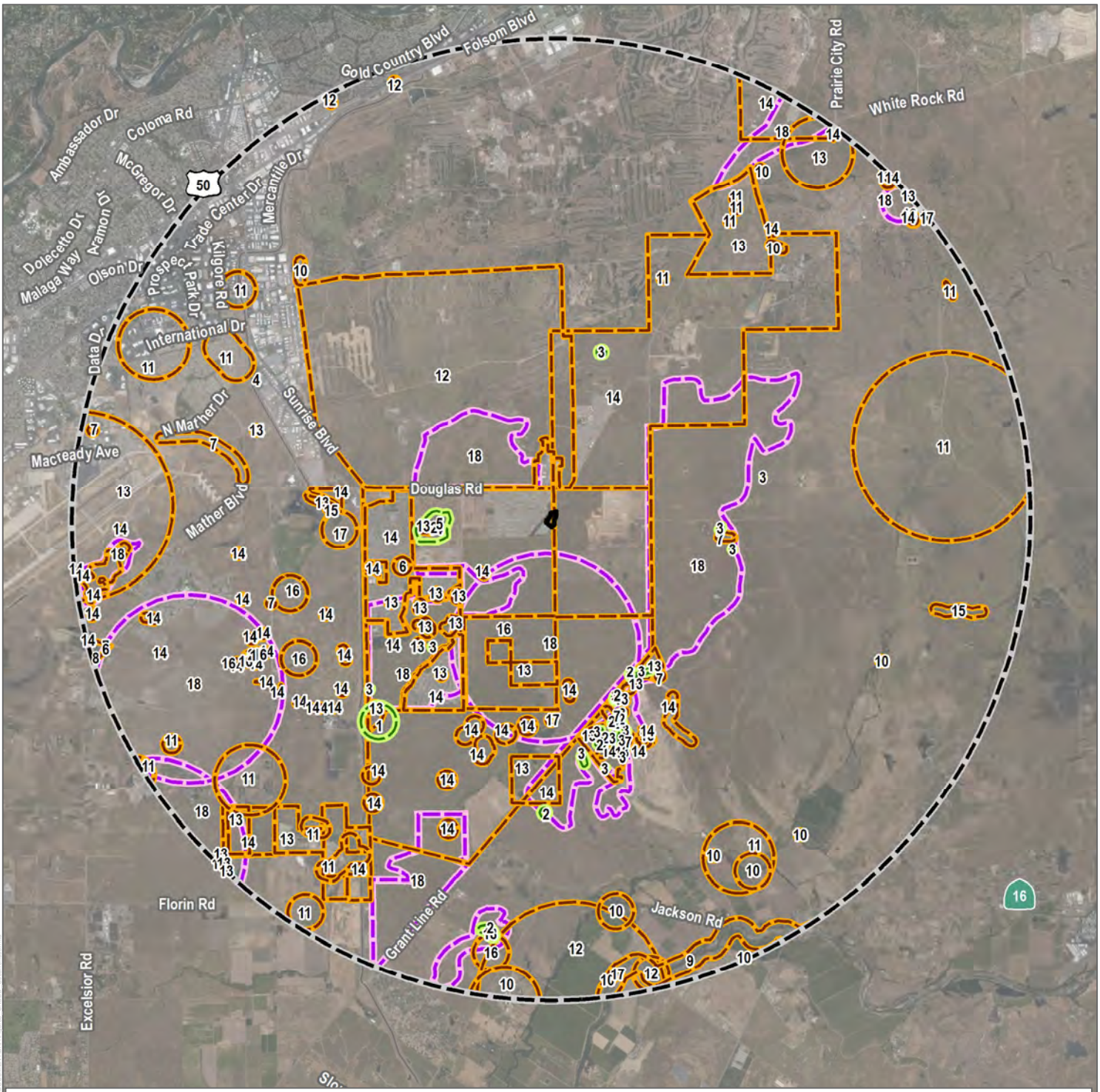
DUDEK

0 50 100 Feet

FIGURE 7

Aquatic Resources Delineation Overview

Biological Resources Assessment for the Sunridge Energy Storage Project



Project Study Area

Buffer - 5 miles

CNDDB Plant Occurrences

1, Ahart's dwarf rush *(Juncus leiospermus var. ahartii)*

2, Boggs Lake hedge-hyssop *(Gratiola heterosepala)*

3, Sacramento Orcutt grass *(Orcuttia viscida)*

CNDDB Wildlife Occurrences

6, American badger *(Taxidea taxus)*

7, burrowing owl *(Athene cunicularia)*

8, golden eagle *(Aquila chrysaetos)*

9, steelhead - Central Valley DPS *(Oncorhynchus mykiss irideus pop. 11)*

10, Swainson's hawk *(Buteo swainsoni)*

11, tricolored blackbird *(Agelaius tricolor)*

12, valley elderberry longhorn beetle *(Desmocerus californicus dimorphus)*

13, vernal pool fairy shrimp *(Branchinecta lynchi)*

14, vernal pool tadpole shrimp *(Lepidurus packardi)*

15, western pond turtle *(Emys marmorata)*

16, western spadefoot *(Spea hammondii)*

17, white-tailed kite *(Elanus leucurus)*

CNDDB Communities

18, Northern Hardpan Vernal Pool

SOURCE: Bing Imagery 2021; CDFW 2021; Open Street Map 2019

DUDEK

0 0.75 1.5 Miles

FIGURE 8

CNDDB Occurrences

Biological Resources Assessment for the Sunridge Energy Storage Project

Attachment B
Photo Record

Photo 1. Sample Point (SP)-01 within Vernal Pool 1.

Photo 2. SP-02, upland point to SP-01

Photo 3. SP-03 within Vernal Pool 2.

Photo 4. SP-04, upland point to SP-03.

Photo 5. SP-05 within Vernal Pool 3.

Photo 6. SP-06, upland point to SP-05.

Photo 7. SP-07 within an upland micro-depression.

Photo 8. A freshwater emergent wetland adjoins the PSA to the west.

Photo 9. A Sacramento Valley Conservancy Open Space Preserve adjoins the PSA to the east.

Photo 10. An unvegetated access road within the PSA and adjoining substation to the south.

Photo 11. Non-native grassland of the PSA.

Photo 12. Additional upland micro-depressions within non-native grassland of the PSA.

Photo 13. Road rut within PSA.

Photo 14. Stormwater control feature along the northern boundary of the PSA.

Photo 15. Stormwater control feature along the southern boundary of the PSA.

Photo 16. Stormwater control feature along the western boundary of the PSA.

Photo 17. Vernal Pool 1.

Photo 18. Vernal Pool 2

Photo 19. Vernal Pool 3.

Photo 20. Vernal pool 3 (Photo 2).

Photo 21. Vernal pool 3 (Photo 3).

Attachment C

Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Buffalo Creek (3812152) OR Carmichael (3812153) OR Citrus Heights (3812163) OR Folsom (3812162) OR Clarksville (3812161) OR Folsom SE (3812151) OR Elk Grove (3812143) OR Sloughhouse (3812142) OR Carbondale (3812141))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii	ABNKC12040	None	None	G5	S4	WL
Cooper's hawk						
Agelaius tricolor	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
tricolored blackbird						
Ambystoma californiense pop. 1	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
California tiger salamander - central California DPS						
Ammodramus savannarum	ABPBXA0020	None	None	G5	S3	SSC
grasshopper sparrow						
Andrena blennospermatis	IIHYM35030	None	None	G2	S2	
Blennosperma vernal pool andrenid bee						
Andrena subapasta	IIHYM35210	None	None	G1G2	S1S2	
An andrenid bee						
Antrozous pallidus	AMACC10010	None	None	G4	S3	SSC
pallid bat						
Aquila chrysaetos	ABNKC22010	None	None	G5	S3	FP
golden eagle						
Arctostaphylos myrtifolia	PDERI04240	Threatened	None	G1	S1	1B.2
Ione manzanita						
Ardea alba	ABNGA04040	None	None	G5	S4	
great egret						
Ardea herodias	ABNGA04010	None	None	G5	S4	
great blue heron						
Athene cunicularia	ABNSB10010	None	None	G4	S3	SSC
burrowing owl						
Bombus crotchii	IIHYM24480	None	None	G3G4	S1S2	
Crotch bumble bee						
Branchinecta lynchi	ICBRA03030	Threatened	None	G3	S3	
vernal pool fairy shrimp						
Branchinecta mesovallensis	ICBRA03150	None	None	G2	S2S3	
midvalley fairy shrimp						
Buteo regalis	ABNKC19120	None	None	G4	S3S4	WL
ferruginous hawk						
Buteo swainsoni	ABNKC19070	None	Threatened	G5	S3	
Swainson's hawk						
Ceanothus roderickii	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Pine Hill ceanothus						
Chlorogalum grandiflorum	PMLIL0G020	None	None	G3	S3	1B.2
Red Hills soaproot						

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Dumontia oregonensis hairy water flea	ICBRA23010	None	None	G1G3	S1	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eriogonum apricum var. apricum Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
Eriogonum apricum var. prostratum Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Ione Chaparral Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Juncus leiospermus var. ahartii	PMJUN011L1	None	None	G2T1	S1	1B.2
Ahart's dwarf rush						
Lasionycteris noctivagans	AMACC02010	None	None	G3G4	S3S4	
silver-haired bat						
Laterallus jamaicensis coturniculus	ABNME03041	None	Threatened	G3G4T1	S1	FP
California black rail						
Legenere limosa	PDCAM0C010	None	None	G2	S2	1B.1
legenere						
Lepidurus packardi	ICBRA10010	Endangered	None	G4	S3S4	
vernal pool tadpole shrimp						
Linderiella occidentalis	ICBRA06010	None	None	G2G3	S2S3	
California linderiella						
Navarretia myersii ssp. myersii	PDPLM0C0X1	None	None	G2T2	S2	1B.1
pincushion navarretia						
Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Hardpan Vernal Pool						
Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Northern Volcanic Mud Flow Vernal Pool						
Oncorhynchus mykiss irideus pop. 11	AFCHA0209K	Threatened	None	G5T2Q	S2	
steelhead - Central Valley DPS						
Orcuttia tenuis	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
slender Orcutt grass						
Orcuttia viscida	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Sacramento Orcutt grass						
Packera layneae	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Layne's ragwort						
Phalacrocorax auritus	ABNFD01020	None	None	G5	S4	WL
double-crested cormorant						
Rana boylii	AAABH01050	None	Endangered	G3	S3	SSC
foothill yellow-legged frog						
Rana draytonii	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California red-legged frog						
Riparia riparia	ABPAU08010	None	Threatened	G5	S2	
bank swallow						
Sagittaria sanfordii	PMALI040Q0	None	None	G3	S3	1B.2
Sanford's arrowhead						
Spea hammondii	AAABF02020	None	None	G2G3	S3	SSC
western spadefoot						
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Thamnophis gigas	ARADB36150	Threatened	Threatened	G2	S2	
giant gartersnake						

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Valley Needlegrass Grassland						
Wyethia reticulata	PDAST9X0D0	None	None	G2	S2	1B.2
El Dorado County mule ears						

Record Count: 63

Search Results

28 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3812141:3812151:3812162:3812161:3812163:3812153:3812143:3812142:3812152**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	No Photo Available
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2	No Photo Available
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	G3	S3	1B.2	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	None	None	G4G5T4	S4	4.2	No Photo Available
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	No Photo Available
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	No Photo Available
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	No Photo Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	No Photo Available
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	No Photo Available

Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	No Photo Available
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2	©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	No Photo Available
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	No Photo Available
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	No Photo Available
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	No Photo Available
Navarretia eriocephala	hoary navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4?	S4?	4.3	No Photo Available
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	No Photo Available
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	No Photo Available
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	No Photo Available
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 28 of 28 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 7 December 2021].

CONTACT US

Send questions and comments to rareplants@cnps.org.

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CONTRIBUTORS

The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Developed by
Rincon Consultants, Inc.

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IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Sacramento County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

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 from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NOT FOR CONSULTATION

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NOT FOR CONSULTATION

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Sacramento Orcutt Grass Orcuttia viscida Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5507	Endangered
Slender Orcutt Grass Orcuttia tenuis Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1063	Threatened

NOT FOR CONSULTATION

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

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
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES

NOT FOR CONSULTATION

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus* — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Clark's Grebe *Aechmophorus clarkii* — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat *Geothlypis trichas sinuosa* — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle *Aquila chrysaetos* — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Nuttall's Woodpecker *Picoides nuttallii* — Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse *Baeolophus inornatus* — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Tricolored Blackbird *Agelaius tricolor* — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Wrentit *Chamaea fasciata* — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

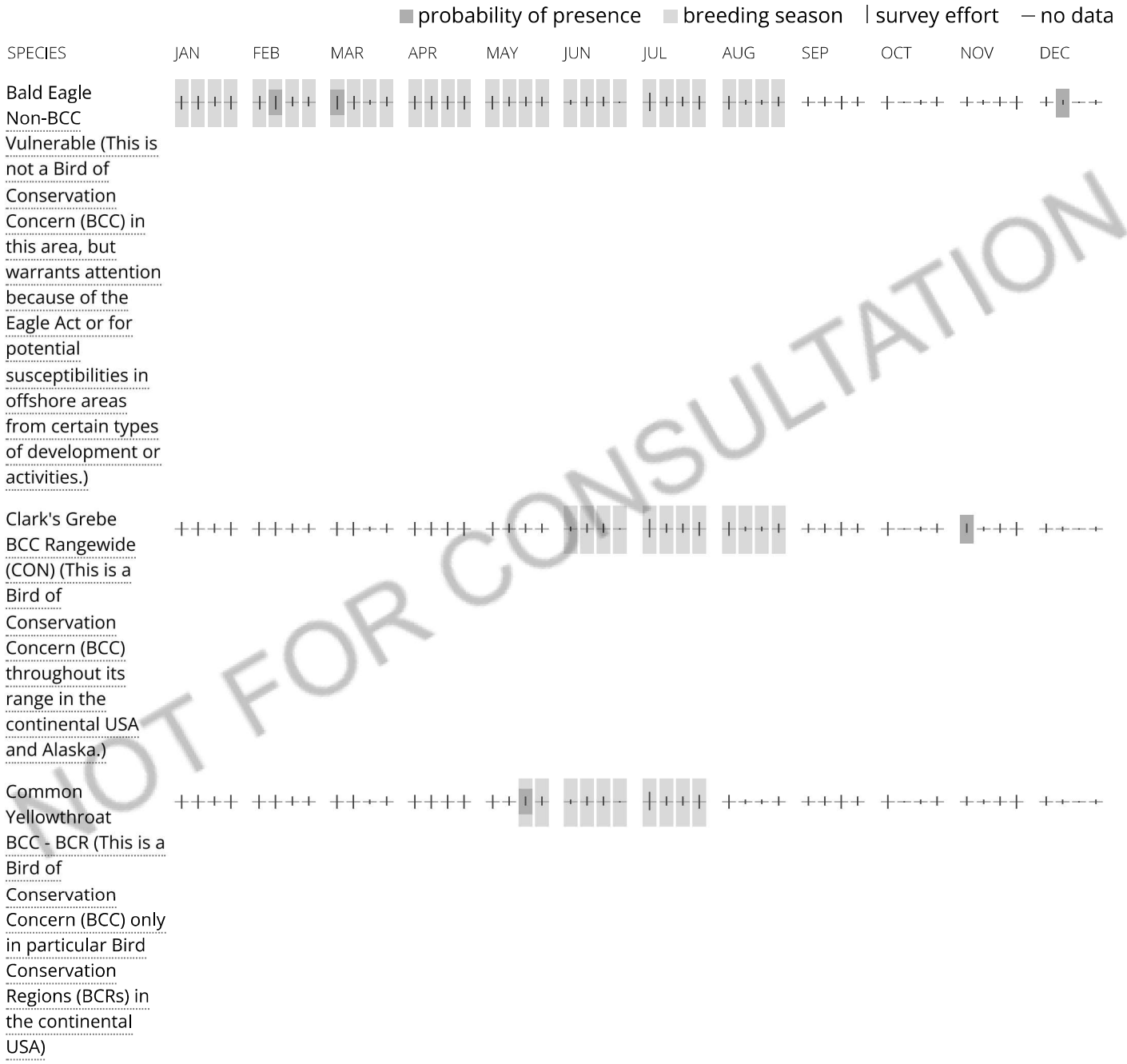
NOT FOR CONSULTATION

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

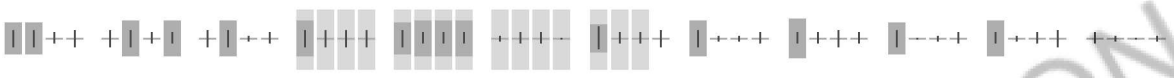
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



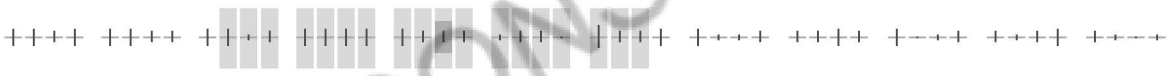
NOT FOR CONSULTATION

Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

NOT FOR CONSULTATION

Wrentit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring

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in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

NOT FOR CONSULTATION

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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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.

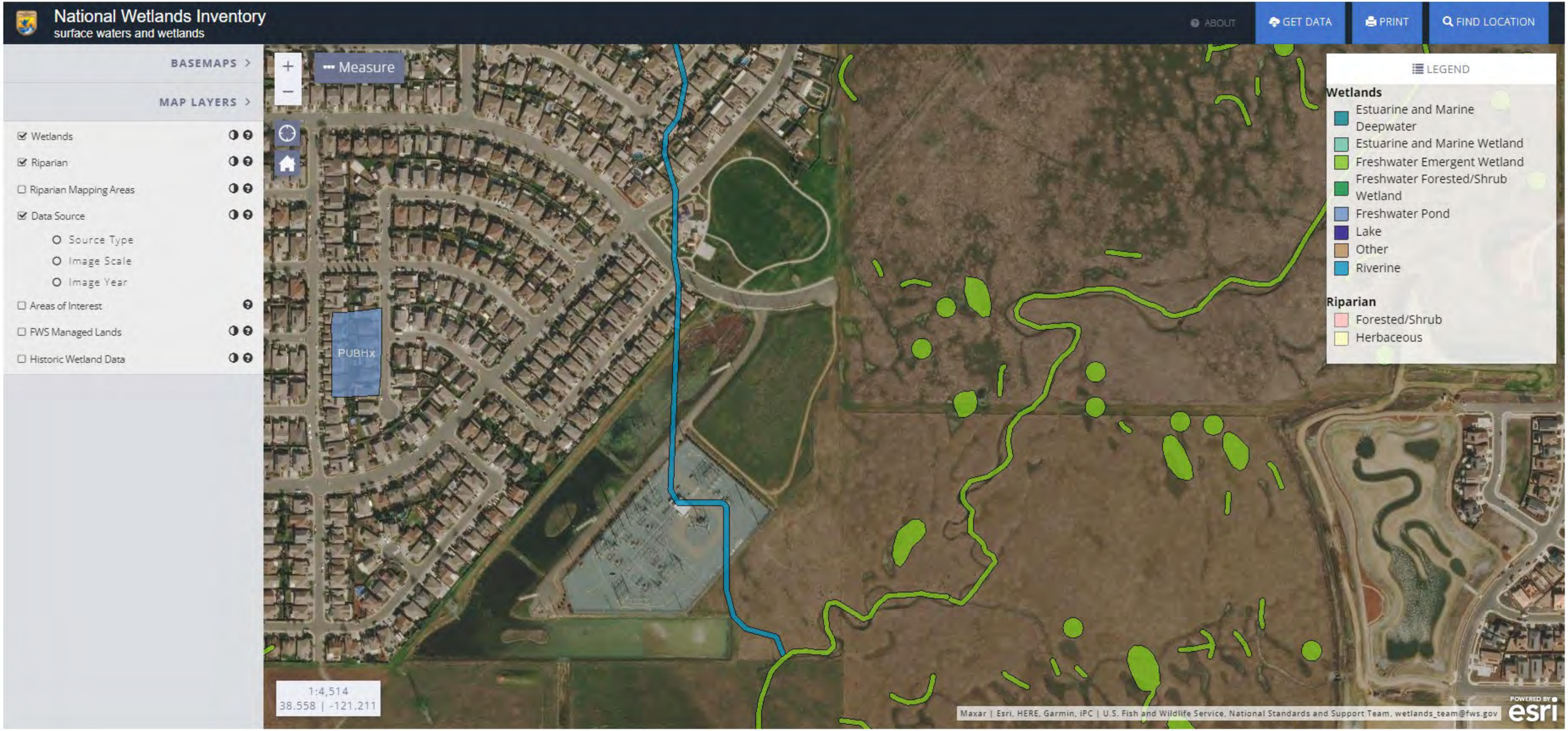
Data exclusions

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.

NOT FOR CONSULTATION


National Wetlands Inventory
surface waters and wetlands
ABOUT
GET DATA
PRINT
FIND LOCATION
BASEMAPS
MAP LAYERS
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Managed Lands
Historic Wetland Data
Measure
PUBHx
LEGEND
Wetlands
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Riparian
Forested/Shrub
Herbaceous
1:4,514
38.558 | -121.211
Maxar | Esri, HERE, Garmin, iPC | U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov
POWERED BY esri

Attachment D

Observed Plant and Wildlife Species Compendium

VASCULAR SPECIES

EUDICOTS

ASTERACEAE—SUNFLOWER FAMILY

Carduus pycnocephalus—Italian plumeless thistle*
Centromadia parryi—pappose tarweed
Dittrichia graveolens—stinkwort*
Holocarpha virgata—yellowflower tarweed
Hypochaeris radicata—hairy cat's ear*
Silybum marianum—blessed milkthistle*

FABACEAE—LEGUME FAMILY

Medicago polymorpha—burclover*
Vicia villosa—winter vetch*

GERANIACEAE—GERANIUM FAMILY

Erodium botrys—longbeak stork's bill*
Erodium cicutarium—redstem stork's bill*
Geranium dissectum—cutleaf geranium*

POLYGONACEAE—BUCKWHEAT FAMILY

Rumex crispus—curly dock*

SCROPHULARIACEAE—FIGWORT FAMILY

Limosella acaulis—Owyhee mudwort

MONOCOTS

CYPERACEAE—SEDGE FAMILY

Eleocharis macrostachya—pale spike rush

POACEAE—GRASS FAMILY

*Avena barbata—slender oat**
Bromus diandrus—ripgut brome*
Bromus hordeaceus—soft brome*
Elymus caput-medusae—medusahead*
Hordeum marinum—seaside barley**
Dipterostemon capitatus—bluedicks

** Indicates non-native, invasive, or noxious plant species*

WILDLIFE

AMPHIBIANS

FROGS

HYLIDAE—TREEFROGS

Pseudacris cadaverina—California treefrog

BIRDS

BLACKBIRDS, ORIOLES & ALLIES

ICTERIDAE—BLACKBIRDS

Sturnella neglecta—western meadowlark

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Corvus corax—common raven

SHOREBIRDS

CHARADRIIDAE—LAPWINGS & PLOVERS

Charadrius vociferus—killdeer

SCOLOPACIDAE—SANDPIPERS, PHALAROPES, & ALLIES

Gallinago delicata—Wilson's snipe

WATERFOWL

ANATIDAE—DUCKS, GEESE, & SWANS

Branta canadensis—Canada goose

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Zonotrichia leucophrys—white-crowned sparrow

Attachment E

Special-Status Species Potential to Occur in the Project Study Area

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Plants				
Arctostaphylos myrtifolia	Ione manzanita	FT/None/1B.2	Chaparral, Cismontane woodland; acidic, Ione soil, clay or sandy/perennial evergreen shrub/Nov–Mar/197–1,900	**Not expected to occur.** No suitable vegetation present.
Ceanothus roderickii	Pine Hill ceanothus	FE/SR/1B.1	Chaparral, Cismontane woodland; Serpentinite or gabbroic (nutrient-deficient forms of gabbro-derived soils characterized by low concentrations of available K, P, S, Fe, and Zn)./perennial evergreen shrub/Apr–June/804–3,575	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Chlorogalum grandiflorum	Red Hills soaproot	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite, gabbroic and other soils/perennial bulbiferous herb/May–June/804–5,540	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Downingia pusilla	dwarf downingia	None/None/2B.2	Valley and foothill grassland (mesic), Vernal pools/annual herb/Mar–May/3–1,455	**Moderate potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is in Phoenix Park approximately 6 miles north of the Project Study Area (PSA) from 1976 (CDFW 2021).
Eriogonum apricum var. apricum	Ione buckwheat	FE/SE/1B.1	Chaparral (openings, Ione soil)/perennial herb/July–Oct/197–475	**Not expected to occur.** No suitable vegetation present.
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	FE/SE/1B.1	Chaparral (openings, Ione soil)/perennial herb/June–July/295–395	**Not expected to occur.** No suitable vegetation present.
Eryngium pinnatisectum	Tuolumne button-celery	None/None/1B.2	Cismontane woodland, Lower montane coniferous forest, Vernal pools; mesic/annual / perennial herb/May–Aug/230–3,000	**Low potential to occur.** Suitable habitat is present, but the PSA is located at the lower elevational limits of this species' range. The closest CNDDB occurrence is in the vicinity of Michigan Bar of the Cosumnes River approximately 8 miles

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				east of the PSA from 1942 (CDFW 2021).
Fremontodendron decumbens	Pine Hill flannelbush	FE/SR/1B.2	Chaparral, Cismontane woodland; gabbroic or serpentinite, rocky/perennial evergreen shrub/Apr–July/1,390–2,490	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Galium californicum ssp. *sierrae*	El Dorado bedstraw	FE/SR/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; gabbroic/perennial herb/May–June/328–1,915	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Gratiola heterosepala	Boggs Lake hedge-hyssop	None/SE/1B.2	Marshes and swamps (lake margins), Vernal pools; clay/annual herb/Apr–Aug/33–7,790	**High potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is in the Montelena Wetland Preserve approximately 1 mile west of the PSA from 2010 (CDFW 2021).
Horkelia parryi	Parry's horkelia	None/None/1B.2	Chaparral, Cismontane woodland; Ione formation and other soils/perennial herb/Apr–Sep/262–3,510	**Not expected to occur.** No suitable vegetation or soils present.
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	None/None/1B.2	Valley and foothill grassland (mesic)/annual herb/Mar–May/98–750	**Moderate potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is located southeast of the intersection of Sunrise Boulevard and Kiefer Boulevard approximately 2.5 miles southwest of the PSA from an unknown date (CDFW 2021).
Legenere limosa	legenere	None/None/1B.1	Vernal pools/annual herb/Apr–June/3–2,885	**High potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is in the Montelena Wetland Preserve approximately 1 mile west of the PSA from 2010 (CDFW 2021).

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Navarretia myersii ssp. *myersii*	pincushion navarretia	None/None/1B.1	Vernal pools; often acidic/annual herb/Apr–May/66–1,080	**Low potential to occur.** Suitable habitat is present, although acidic soils often required by this species are absent. The closest CNDDB occurrence is in Phoenix Park approximately 7 miles north of the PSA from 2016 (CDFW 2021).
Orcuttia tenuis	slender Orcutt grass	FT/SE/1B.1	Vernal pools; Often gravelly/annual herb/May–Sep (Oct)/115–5,770	**High potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is in the Montelena Wetland Preserve approximately 1 mile west of the PSA from 2012 (CDFW 2021).
Orcuttia viscida	Sacramento Orcutt grass	FE/SE/1B.1	Vernal pools/annual herb/Apr–July (Sep)/98–330	**Moderate potential to occur.** Suitable habitat is present. The closest CNDDB occurrence is in a vernal pool complex approximately 1.7 miles west of the PSA from 2010 (CDFW 2021).
Packera layneae	Layne's ragwort	FT/SR/1B.2	Chaparral, Cismontane woodland; serpentinite or gabbroic, rocky/perennial herb/Apr–Aug/656–3,555	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Sagittaria sanfordii	Sanford's arrowhead	None/None/1B.2	Marshes and swamps (assorted shallow freshwater)/perennial rhizomatous herb (emergent)/May–Oct (Nov)/0–2,130	**Not expected to occur.** No suitable vegetation present.
Wyethia reticulata	El Dorado County mule ears	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; clay or gabbroic/perennial herb/Apr–Aug/607–2,065	**Not expected to occur.** The site is outside of the species' known elevation range and there is no suitable vegetation or soils present.
Wildlife				
Amphibians				
Ambystoma californiense pop. 1	California tiger salamander -	FT/ST, WL	Annual grassland, valley–foothill hardwood, and valley–foothill riparian habitats; vernal	**Low potential to occur.** This species has not been documented in the PSA,

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
	central California DPS		pools, other ephemeral pools, and (uncommonly) along stream courses and man-made pools if predatory fishes are absent	however this species is known to occur in the Project vicinity, and some suitable grassland and vernal pool habitat is present. However, there are no known occurrences of this species within 10 miles of the PSA (CDFW 2021). Moreover, no small mammal burrows were observed during the December 2021 survey.
Rana boylii	foothill yellow-legged frog	None/SSC, SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	**Not expected to occur.** No suitable aquatic habitat present.
Rana draytonii	California red-legged frog	FT, BCC/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	**Not expected to occur.** No suitable aquatic habitat present.
Spea hammondii	western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	**Known to occur.** This species has been documented within the PSA, which contains suitable vernal pool habitat. The CNDDB record refers to a general area containing vernal pools along Kiefer Boulevard between Grant Line Road and Sunrise Road approximately 2 miles south of the PSA where tadpoles of this species were collected in 1972 and 1978 (CDFW 2021).
Reptiles				
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	**Not expected to occur.** No suitable aquatic habitat present.

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Thamnophis gigas	giant garter snake	FT/ST	Freshwater marsh habitat and low-gradient streams; also uses canals and irrigation ditches	**Not expected to occur.** No suitable aquatic habitat present.
Birds				
Agelaius tricolor (nesting colony)	tricolored blackbird	None/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	**Moderate potential to occur.** Suitable nesting habitat is present in the freshwater emergent wetland that adjoins the PSA to the west, although this species would not be expected to nest within the PSA itself. Suitable foraging habitat is present. The closest CNDDB record is a nesting colony located in a blackberry patch approximately 2.5 miles north of the PSA from 2012 (CDFW 2021).
Ammodramus savannarum (nesting)	grasshopper sparrow	BCC/SSC	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	**Low potential to occur.** Marginally suitable habitat is present within the PSA, although coverage generally preferred by this species is scarce. The CNDDB only lists 2 records of this species within the 9-quad search area, the closest of which is located in Deer Creek Hills approximately 7 miles east of the PSA from 2007 (CDFW 2021).
Aquila chrysaetos (nesting & wintering)	golden eagle	None/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	**Moderate potential to occur.** This species would not nest on or adjacent to the PSA, but the PSA provides suitable foraging habitat. The closest CNDDB occurrence is located approximately 5 miles to the west from 1991 (CDFW 2021).

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	None/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	**Moderate potential to occur.** This species has not been documented in the PSA. However, this species is known to occur in the Project vicinity and suitable grassland habitat is present. No burrows or sign of this species were observed during the December 2021 survey. The closest CNDDB occurrence is located in rolling grassland habitat with vernal pool approximately 1.7 miles east of the PSA from 1989 (CDFW 2021).
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	**Moderate potential to occur.** This species would not nest on or adjacent to the PSA, but the PSA provides suitable foraging habitat. The closest CNDDB occurrence is located approximately 3.5 miles to the northwest from 2007 (CDFW 2021).
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	**Moderate potential to occur.** This species would not nest on or adjacent to the PSA, but the PSA provides suitable foraging habitat. The closest CNDDB occurrence is located approximately 2 miles to the west from 1990 (CDFW 2021).
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FPD/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	**Not expected to occur.** No suitable habitat present.
Laterallus jamaicensis coturniculus	California black rail	None/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy	**Not expected to occur.** No suitable habitat present.

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	
Riparia riparia (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	**Not expected to occur.** No suitable habitat present.
Fishes				
Hypomesus transpacificus	Delta smelt	FT/SE	Sacramento–San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay	**Not expected to occur.** No suitable aquatic habitat present.
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	FT/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	**Not expected to occur.** No suitable aquatic habitat present.
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	**Low potential to occur.** This species would not roost on or adjacent to the PSA but could forage over the PSA. The only CNDDB occurrence is located approximately 9 miles to the north from 1941 (CDFW 2021).
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	**Low potential to occur.** This species has not been documented in the PSA. However, this species is known to occur in the Project vicinity and suitable grassland habitat is present. No burrows were observed during the December 2021 survey. An active den was recorded approximately 1.5 miles west of the PSA from 1990, but this location has since been converted into

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				a residential development (CDFW 2021).
Invertebrates				
Branchinecta conservatio	Conservancy fairy shrimp	FE/None	Larger, more turbid vernal pools, playa pools	**High potential to occur.** The PSA contains suitable vernal pool habitat to support this species.
Branchinecta lynchi	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	**High potential to occur.** The PSA contains suitable vernal pool habitat to support this species. Occurrences of this species have been recorded along the western portion of the gen-tie alignment route in the northwest vicinity of the PSA (CDFW 2021, USFWS 2021). Additionally, there are several known occurrences of this species within five miles of the PSA, the closest of which are in occupied pools approximately 1.2 miles southwest of the PSA documented in 1996 (CDFW 2021).
Danaus plexippus pop. 1	monarch	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	**Not expected to occur.** No suitable habitat present.
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry (Sambucus nigra ssp. caerulea)	**Not expected to occur.** No elderberry shrubs present during the December 2021 survey.
Lepidurus packardi	vernal pool tadpole shrimp	FE/None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales	**Known to occur.** This species has been documented within the PSA, which contains suitable vernal pool habitat. The CNDDB record refers to a general area east of Sunrise Boulevard, north of Kiefer Boulevard, and south of White

Table E1. Special-Status Species Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				Rock Road where specimens were collected in the 1990's (CDFW 2021).

Sources: CDFW 2021; USFWS 2021b.

Status:

Federal

BCC: Bird of conservation concern

FC: Federally listed as a candidate species

FE: Federally listed as endangered

FPD: Ferally delisted protected species

FP: Federally listed as protected

FT: Federally listed as threatened

State

SE: State listed as endangered

SSC: Species of special concern

SR: State listed as recovered

ST: State listed as threatened

WL: State watch list

California Rare Plant Rank (CRPR) Status and Threat Rank

1B: plants rare, threatened, or endangered in California and elsewhere

2B: plants rare, threatened, or endangered in California but more common elsewhere

3: Plants about which more information is needed – A Review List

4: Plants of limited distribution – A Watch List

0.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2: Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)

0 .3: Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

None = No conservation status.

Potential for Occurrence Ranks:

Known to Occur:

High Potential to Occur:

Moderate Potential to Occur: The PSA within the known range of the species, and habitat for the species is present.

Low Potential to Occur: The PSA is within the known range of the species, but habitat for the species is marginal and of low quality.
Not Expected to Occur: The PSA is outside the known range of the species, and habitat for the species is either absent or of low quality.

Appendix C
Cultural Resources Letter Report

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April 11, 2022

Keleigh Wright
Vesper Energy
906 W McDermott Drive, Suite 116-366
Allen, Texas 75013

Subject: ***Cultural Resources Letter Report for the Sunridge Energy Storage Project, City of Rancho Cordova, Sacramento County, California***

Dear Ms. Wright:

This letter report documents the cultural resources study conducted by Dudek for the proposed Sunridge Energy Storage Project (Project), located in the City of Rancho Cordova, California. The City of Rancho Cordova (City) is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA). This cultural resources study included a North Central Information Center (NCIC) records search, Native American Heritage Commission (NAHC) Sacred Lands File search, and an intensive pedestrian survey for cultural resources. The cultural resources study was conducted by Dudek in accordance with the standards and guidelines defined by the California Office of Historic Preservation and CEQA.

PROJECT LOCATION AND DESCRIPTION

The Project site is located in Sections 9 and 16 of Township 8 North, Range 7 East, of the Buffalo Creek 7.5' USGS Quadrangle map (Figure 1). The Project site is located on an undeveloped lot in the eastern portion of the City of Rancho Cordova, at the east end of Canyonlands Drive, southeast of the intersection of Canyonlands Drive and Poopenaut Court.

The Project will be composed of lithium-ion batteries installed in racks, inverters, medium-voltage (MV) transformers, a collector substation, and other associated equipment to interconnect with the existing and adjacent Sacramento Municipal Utility District (SMUD) Cordova Substation (point of interconnection). The batteries will be installed either in containers or in purpose-built enclosures. The containers or enclosures will have battery storage racks, with relay and communications systems for automated monitoring and managing of the batteries to ensure performance and safety. The project consists of an approximately 200-megawatt battery energy storage system (BESS).

A battery management system will be provided to control the charging/discharging of the batteries, along with temperature monitoring and control of the individual battery cell temperature with an integrated cooling system. Batteries operate with direct current (DC) electricity, which must be converted to alternating current (AC) for compatibility with the existing electric grid. Power inverters to convert between AC and DC, along with transformers to step up the voltage, will be included as part of the Project.

REGULATORY FRAMEWORK

State Regulations

The California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code [PRC] Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP), enumerated below. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

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

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource

less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see California Code Regulations, Title 14, Section 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) defines "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource;" it also defines the circumstances when a project would materially impair the significance of an historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e): Set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4: Provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of

CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project:

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA (CEQA Guidelines Section 15064.5(b)(2)).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b], and [c]).

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (PRC Sections 21074(c); 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

Native American Historic Cultural Sites

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Heritage Commission to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (Section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe

the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. Recommendations by the MLD must be provided within 48 hours of being provided access. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

BACKGROUND RESEARCH

Cultural Records Search Results

A records search was completed for the current proposed Project site and a 1/2-mile radius by NCIC staff at the NCIC at Sacramento State University on December 3, 2021 (Confidential Appendix A). This search included a review of their collection of mapped prehistoric, historical, and built-environment resources, Department of Parks and Recreation Site Records, technical reports, historical maps, and local inventories. Additional consulted sources included the NRHP, California Inventory of Historical Resources/CRHR and listed Office of Historic Preservation Archaeological Determinations of Eligibility, California Points of Historical Interest, and California Historical Landmarks.

Previously Conducted Studies

NCIC records indicate that twenty-two (22) previous cultural resources technical investigations have been conducted within 1/2-mile of the proposed Project site (Table 1). Of these studies, one included the entirety of the proposed Project site.

Table 1.
Previous Technical Studies

Report Number	Date	Title	Author
Reports within the Project Site			
005850	2004	Determination of Eligibility and Effect for the Sunridge Park Project Area	Peak, Melinda A.
Reports within ½-mile of the Project Site			
000019	1982	Cultural Resource Assessment of the Undredged Areas of the McDonnell Douglas Properties, Sacramento Co. CA.	Peak & Associates, Inc.
001724	1997	Cultural Resources Assessment of the Sunrise Douglas Specific Plan and Community Plan Area	Robert Gerry
005843	2005	Determination of Eligibility and Effect for the Sunbridge Park Project Area.	Peak, Melinda A.
005844	2004	Determination of Eligibility and Effect for the Douglas Road 98 Project Area	Peak, Melinda A.

Table 1.
Previous Technical Studies

Report Number	Date	Title	Author
005848	2004	Determination of Eligibility and Effect for the Arista Del Sol Project Area	Peak, Melinda A.
005851	2005	Cultural Resources Inventory Gold Flake Sacramento .	ECORP Consulting
005852	2004	Determination of Eligibility and Effect for the Sunrise Douglas Road Improvements Three Project Area	Peak, Melinda A.
005853	2004	Determination of Eligibility and Effect for the Douglas Road 103 Project Area	Peak, Melinda A.
005855	2005	Determination of Eligibility and Effect for the Grantline 208 Project Area	Peak, Melinda
005869	1999	Cultural Resource Assessment for the Proposed Rio Del Oro Project Area	Peak & Associates
005877	2004	Cultural Resources Inventory North Douglas	ECORP Consulting Inc.
006165	2005	Determination of Eligibility and Effect for the Proposed Rio Del Oro Project Area, City of Rancho Cordova, Sacramento County, California	Peak & Associates, Inc.
010198	2005	Draft: Historic Buildings and Structures Inventory Douglas Missile Test Facility Rio del Oro Specific Plan Project	Weitze, Karen and EDAW, Inc
010495	2010	Cultural Resources Inventory and Evaluation Report Rio Del Oro	Stephen Pappas, Lisa Westwood, and Susan Lindstrom
010769	2011	NATIONAL REGISTER OF HISTORIC PLACES EVALUATION OF STRUCTURES ASSOCIATED WITH THE DOUGLAS MISSILE TEST FACILIITY (P-34-4137) RIO DEL ORO, RANCHO CORDOVA, CALIFORNIA	Allen, Rebecca
010817	2010	Verizon Cellular Communications Tower Site-Sunridge LTE 12525 Quicksilver Drive (APN: 072-0440-013) Rancho Cordova, CA 95742	Hatoff, Brian
011536	2014	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate SC90136M (Security Park), 12525 Quicksilver Drive, Rancho Cordova, Sacramento County, California	Dana D. DePietro and Kathleen A. Crawford
011734	2013	CA3182-CUPPLANE-PHASE 1A / SF72XC539	Alexis Godat, Tara Cubie, and Sonnier Francisco
012191	2016	Cultural Resources Inventory Report. Douglas Road Widening Project, Sacramento County, California	Wendy Blumel, Lowell Thomas, and Jeremy Adams
012532	2018	The Ranch Updated Cultural Resources Inventory and Evaluation Rancho Cordova, Sacramento County, California	Ric Windmiller

Previously Identified Cultural Resources

NCIC records indicate that no archaeological or built-environment resources are on file within or adjacent to the Project site. One resource is on file within the ½-mile records search area (Table

2). The resource consists of a historic industrial building that has been found ineligible for the NRHP and CRHR through survey evaluation.

Table 2.
Previously Recorded Cultural Resources

Primary Number	Trinomial	Period	Name	Type	NRHP/CRHR Status
Resources within the Project Site					
None					
Resources within the 1/2-Mile Search Site					
P-34-004318		Historic-era	Modification Hangar	Industrial building	6Z – Found ineligible through survey evaluation

Archival and Building Development Research

Dudek consulted historic maps and aerial photographs to understand development of the proposed Project site and surrounding properties. Historic aerial photographs were available from 1952 to 2018, and historic maps were available from 1909 to 2018 (NETR 2021). Aerial images indicate the vicinity of the Project site was undeveloped agricultural land until the early 2000s. Initial development of the area is visible on the 2002 and 2005 aerial images, with the construction of a housing development and associated infrastructure to the west of the Project site. Between 2005 and 2009 additional infrastructure development occurred to the west and south of the Project site with extensive grading for a power substation and reservoir. By 2014 development appears as it does presently. Topographic mapping from 1968 depicts the power lines to the west of the Project site. No other built environment features are depicted on the available topographic maps of the area.

NAHC and Tribal Correspondence

Dudek requested a NAHC search of their Sacred Lands File (SLF) on December 1, 2021 for the Project site. On February 23, 2022, the NAHC responded that the result of the SLF check was negative. Follow-up communication and formal consultation with Native American tribes pursuant to Assembly Bill (AB) 52 will be completed by City staff.

The proposed Project is subject to compliance with Assembly Bill 52 (PRC Section 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process and requires the CEQA lead agency to notify any groups (who have requested notification) of the Project who are traditionally or culturally affiliated with the geographic area of the Project. Because AB 52 is

a government-to government process, all records of correspondence related to AB 52 notification and any subsequent consultation are on file with the City.

Intensive Pedestrian Survey

Dudek archaeologist Ross Owen inspected all portions of the approximately 5.7-acre Project site on December 16, 2021, using standard archaeological procedures and techniques that meet the Secretary of Interior's Standards and Guidelines for cultural resources inventory. The entirety of the proposed 5.7-acre development area was covered with non-native annual grasses. Surface visibility was very low (less than 5%) due to dense grasses. Exposed ground surfaces were observed for surface artifacts, undisturbed areas, archaeological deposits, and historic structures. Evidence of artifacts and archaeological deposits were also opportunistically sought after in animal burrows and along an unpaved access road. No historic structures were observed. No archaeological resources were identified within the Project site during the field survey.

Photo 1. Overview of Project Site taken from NE corner, facing SW

Geomorphology

Potential for yet identified cultural resources in the vicinity was reviewed against geologic and topographic GIS data for the area and information from other nearby projects. The "archaeological sensitivity," or potential to support the presence of a buried prehistoric archaeological deposits, is generally interpreted based on geologic landform and environmental parameters (i.e., distance to water and landform slope).

The Project site is located within the Great Valley Geomorphic Province of California, a large basin comprised of the Sacramento and San Joaquin Valleys, bounded by the Serra Nevada and Coast Ranges to the east and west respectively. Specifically, the Project site is north of an unnamed tributary to Morrison Creek which feeds into the Sacramento River.

Soils within the site are entirely characterized as Redding gravelly loam soil series, which consists of loamy alluvium deposited on alluvial fan remnants. These soils are moderately well drained, and derived from igneous, metamorphic and sedimentary rock. Slopes within the Project site are between 0-2 percent. Based on review of this information the Project site would be moderately-well suited to support the formation or continued presence of buried cultural deposits or surface manifestations.

SUMMARY AND MANAGEMENT RECOMMENDATIONS

Archaeological Resources

A NCIC records search did not identify the presence of archaeological resources (including both prehistoric resources of Native American origin and historic-era archaeological resources) within the proposed Project site or the surrounding vicinity. One historic-era built environment resource, consisting of an industrial building previously assessed to be not CRHR eligible, was identified by the NCIC to be within the half-mile area surrounding the Project site. An NAHC Sacred Lands File search was negative. No newly identified archaeological resources were recorded during the pedestrian survey of the proposed Project site. Observation of the present conditions and archival imagery within the proposed Project indicate surface conditions are disturbed from previous agricultural activities. The proposed Project, as currently designed, appears to have a very low potential for encountering intact cultural deposits during ground-disturbing activities and would have no impact to known cultural resources. Based on these negative findings and the observed conditions of the present proposed Project site, no additional cultural resources efforts, including archaeological monitoring, are recommended to be necessary beyond standard protection measures for unanticipated discoveries of cultural resources and human remains, outlined below.

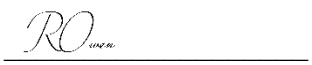
Unanticipated Discovery of Archaeological Resources

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Unanticipated Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the potential remains are human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. The MLD shall provide recommendations within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Respectfully submitted,



Ross Owen, M.A., R.P.A.

cc: Adam Giacinto, MA, RPA, Dudek
Nicholas Hanten, MA, Dudek
Keith Carwana, Dudek

Att: NADB Information
Figure 1. Project Location
Figure 2. Project Site
Appendix A: NCIC Records Search Results - Confidential
Appendix B: NAHC SLF Search

REFERENCES CITED

NETR (Nationwide Environmental Title Research). *Historical Aerials.* Accessed December 30, 2021. www.historicaerials.com.

UC Davis (University of California, Davis). 2021. *California Soil Resource Lab: SoilWeb.* Accessed December 30, 2021. https://casoilresource.lawr.ucdavis.edu/gmap/.

USDA (United States Department of Agricultural). 2021. *Natural Resources Conservation Service: Web Soil Survey.* Accessed December 30, 2021. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

48 FR 44716–44740.Secretary of the Interior's Standards and Guidelines for Archaeology and HistoricPreservation.

NATIONAL ARCHAEOLOGICAL DATABASE (NADB) INFORMATION

Authors:	Ross Owen MA, RPA, Nicholas Hanten, MA, and Adam Giacinto, MA, RPA
Firm:	Dudek
Project Proponent:	Vesper Energy
Report Date:	January 2022
Report Title:	Cultural Resources Letter Report for the Sunridge Energy Storage Project, Sacramento County, California
Type of Study:	Archaeological Inventory, Intensive Pedestrian Survey
Acreage:	Approximately 5.7 acres
Resources:	None
USGS Quads:	Sections 9 and 16, Township 8 North, Range 7 East, Buffalo Creek Quadrangle USGS map
Keywords:	Rancho Cordova, Archaeological Inventory, Intensive Pedestrian Survey, Sacramento Municipal Utility District

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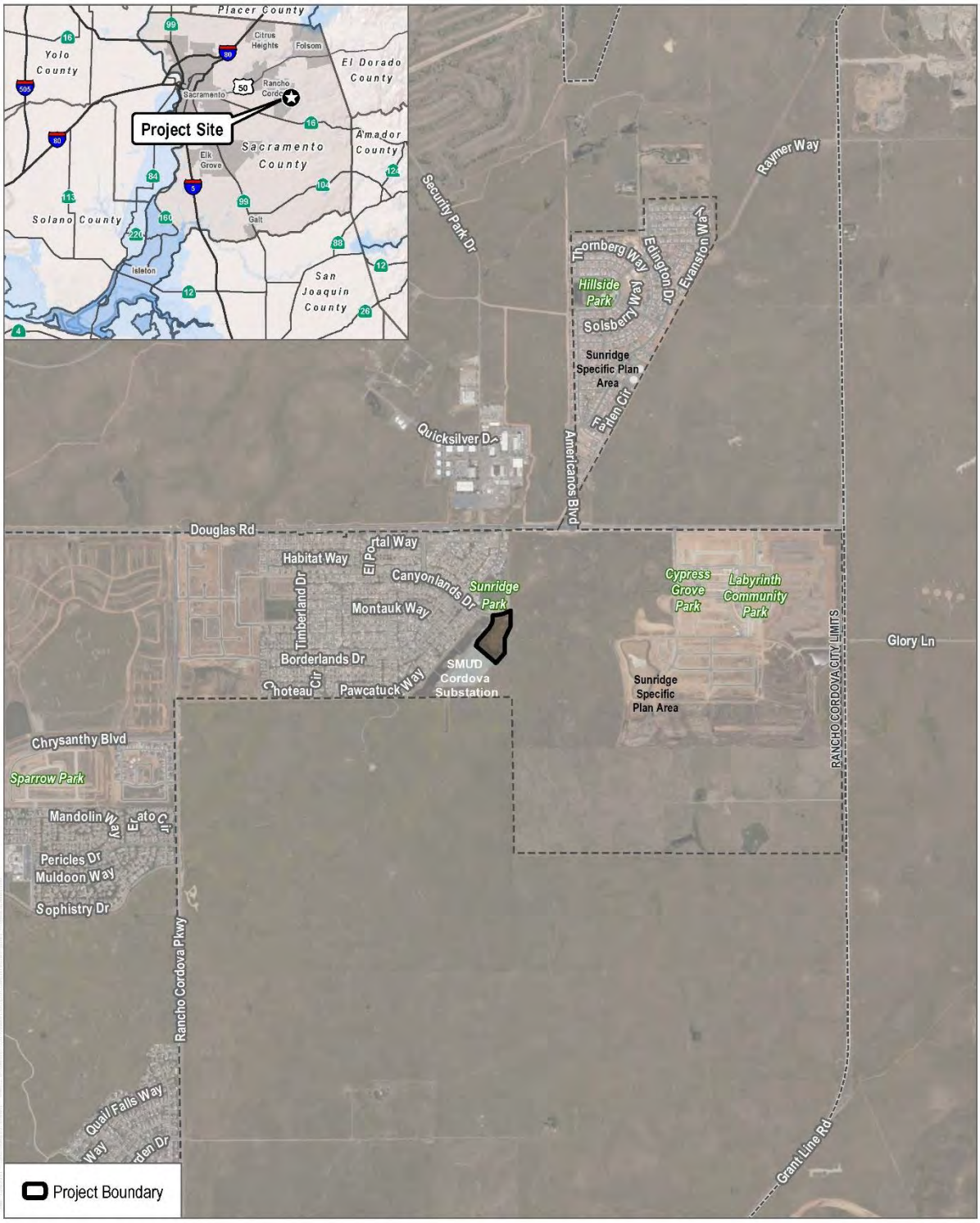

SOURCE: Bing Imagery 2021; County of Sacramento 2021; Open Street Maps 2019

DUDEK 0 1,000 2,000 Feet

FIGURE 1

Project Location

Habitat Evaluation Report for the Sunridge Energy Storage Project

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Tailings Dr
Security Park Dr
Americanos Blvd
Douglas Rd
El Portal Way
Kibbie Lake Way
Cuyamaca Cir
Katahdin Dr
Quarter Dome Cir
Canyonlands Dr
Pinoche Peak Way
Sunridge Park
Montauk Way
Muir Trail Way
Preserve Way
Tenaja Way
Borderlands Dr
Etoway Way
Big Meadow Way
Pawcatuck Way
SMUD
Cordova
Substation
Project Boundary
Sunridge Specific Plan Area
Existing Preserve
SOURCE: Bing imagery 2021; Sacramento County 2021; Open Street Maps 2019
DUDEK
0
250
500
Feet
FIGURE 2
Project Site
Habitat Evaluation Report for the Sunridge Energy Storage Project

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APPENDIX A

CONFIDENTIAL

NCIC Records Search Results

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: 10.00 **IC FILE NO.:** _____

To: North Central Information Center

Print Name: Nicholas Hanten Date: 12/01/2021

Affiliation: Dudek

Address: 853 Lincoln Way #208

City: Auburn State: CA Zip: 95603

Phone: (760) 840-7599 Fax: _____ Email: nhanten@dudek.com

Billing Address (if different than above): _____

Billing Email: _____ Billing Phone: _____

Project Name / Reference: Sunridge Energy Storage Project / 13267.05

Project Street Address: Canyonlands Dr, Rancho Cordova, CA 95742

County or Counties: Sacramento

Township/Range/UTMs: T 8N; R 7E; Sec. 9, 10, 15, 16

USGS 7.5' Quad(s): Buffalo Creek

PRIORITY RESPONSE (Additional Fee): yes ☐ / no ■

TOTAL FEE NOT TO EXCEED: $_____
(If blank, the Information Center will contact you if the fee is expected to exceed $1,000.00)

Special Instructions:

Information Center Use Only

Date of CHRIS Data Provided for this Request: _____

Confidential Data Included in Response: yes ☐ / no ☐

Notes: _____

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate IC for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.
- In addition to the $150/hr. staff time fee, client will be charged the Custom Map fee when GIS is required to complete the request [e.g., a map printout or map image/PDF is requested and no GIS Data is requested, or an electronic product is requested (derived from GIS data) but no mapping is requested].

For product fees, see the CHRIS IC Fee Structure on the OHP website.

1. Map Format Choice:

Select One: Custom GIS Maps ☐ GIS Data ☐ Custom GIS Maps **and** GIS Data ☒ No Maps ☐

Any selection below left unmarked will be considered a "no. "

Location Information:

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Locations	yes ☒ / no ☐	yes ☒ / no ☐
Report Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Report Locations[2]	yes ☐ / no ☒	yes ☐ / no ☒

3. Database Information:
(contact the IC for product examples, or visit the SSJVIC website for examples)

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Database		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☒ / no ☐	yes ☒ / no ☐
Report Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☒ / no ☐	yes ☒ / no ☐
Include "Other" Reports [2]	yes ☐ / no ☒	yes ☐ / no ☒

4. Document PDFs (paper copy only upon request)**:**

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Records[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Records	yes ☒ / no ☐	yes ☒ / no ☐
Reports[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Reports[2]	yes ☐ / no ☒	yes ☐ / no ☒

CHRIS Data Request Form

5. Eligibility Listings and Documentation:

	Within project area	Within 1/2 mi. radius
OHP Built Environment Resources Directory[3]:		
Directory listing only (Excel format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐
OHP Archaeological Resources Directory[1,5]:		
Directory listing only (Excel format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐
***California Inventory of Historic Resources* (1976):**		
Directory listing only (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐

6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the OHP website and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes ☒ / no ☐
Ethnographic Information	yes ☒ / no ☐
Historical Literature	yes ☒ / no ☐
Historical Maps	yes ☒ / no ☐
Local Inventories	yes ☒ / no ☐
GLO and/or Rancho Plat Maps	yes ☒ / no ☐
Shipwreck Inventory	yes ☐ / no ☒
Soil Survey Maps	yes ☐ / no ☒

---

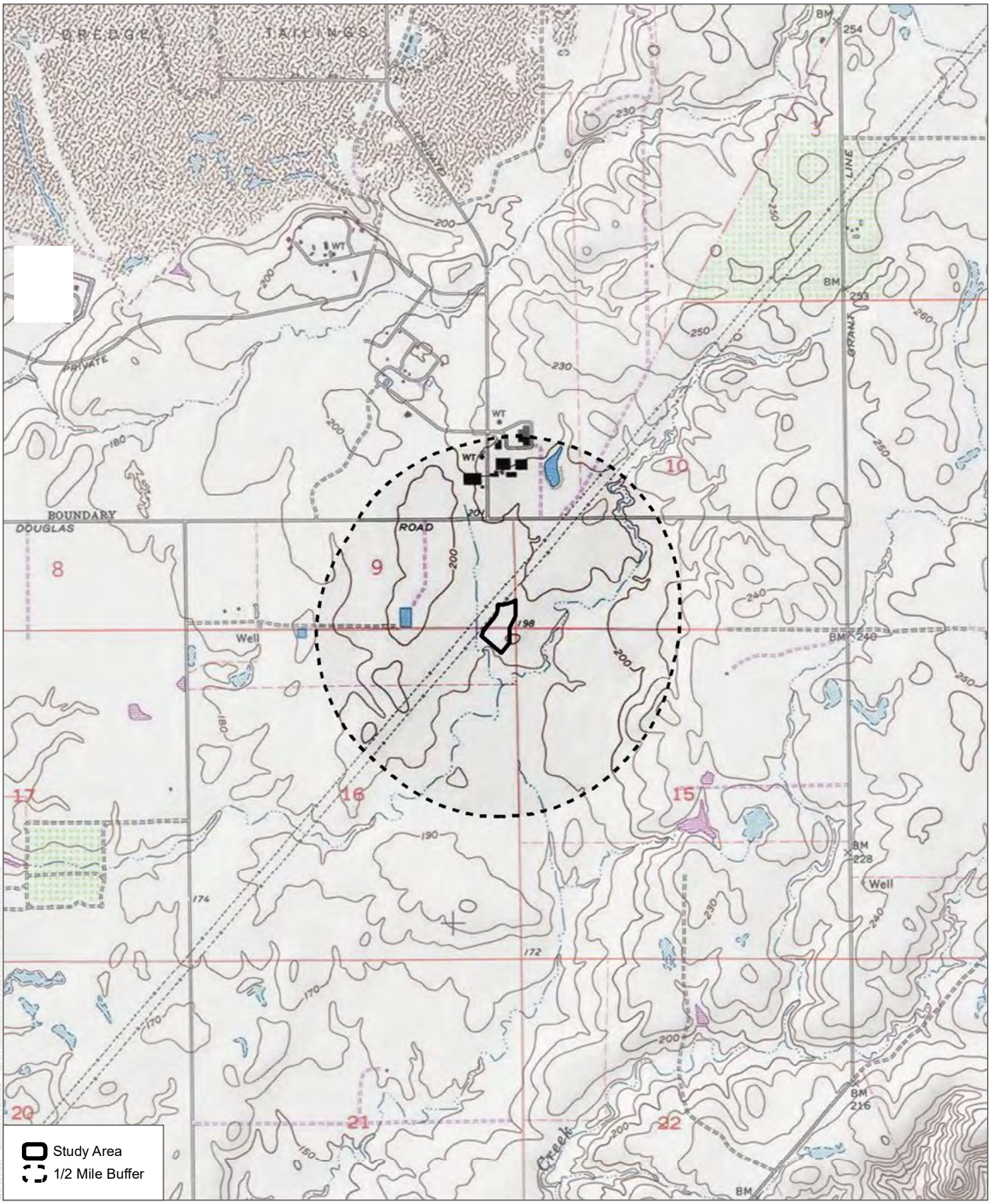
[1] In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

[2] "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

[3] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Includes, but not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI and then as the HPD, it is now known as the Built Environment Resources Directory (BERD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.

[4] Associated documentation will vary by resource. Contact the IC for further details.

[5] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Previously known as the Archaeological Determinations of Eligibility, now it is known as the Archaeological Resources Directory (ARD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.



SOURCE: USGS 7.5 Series

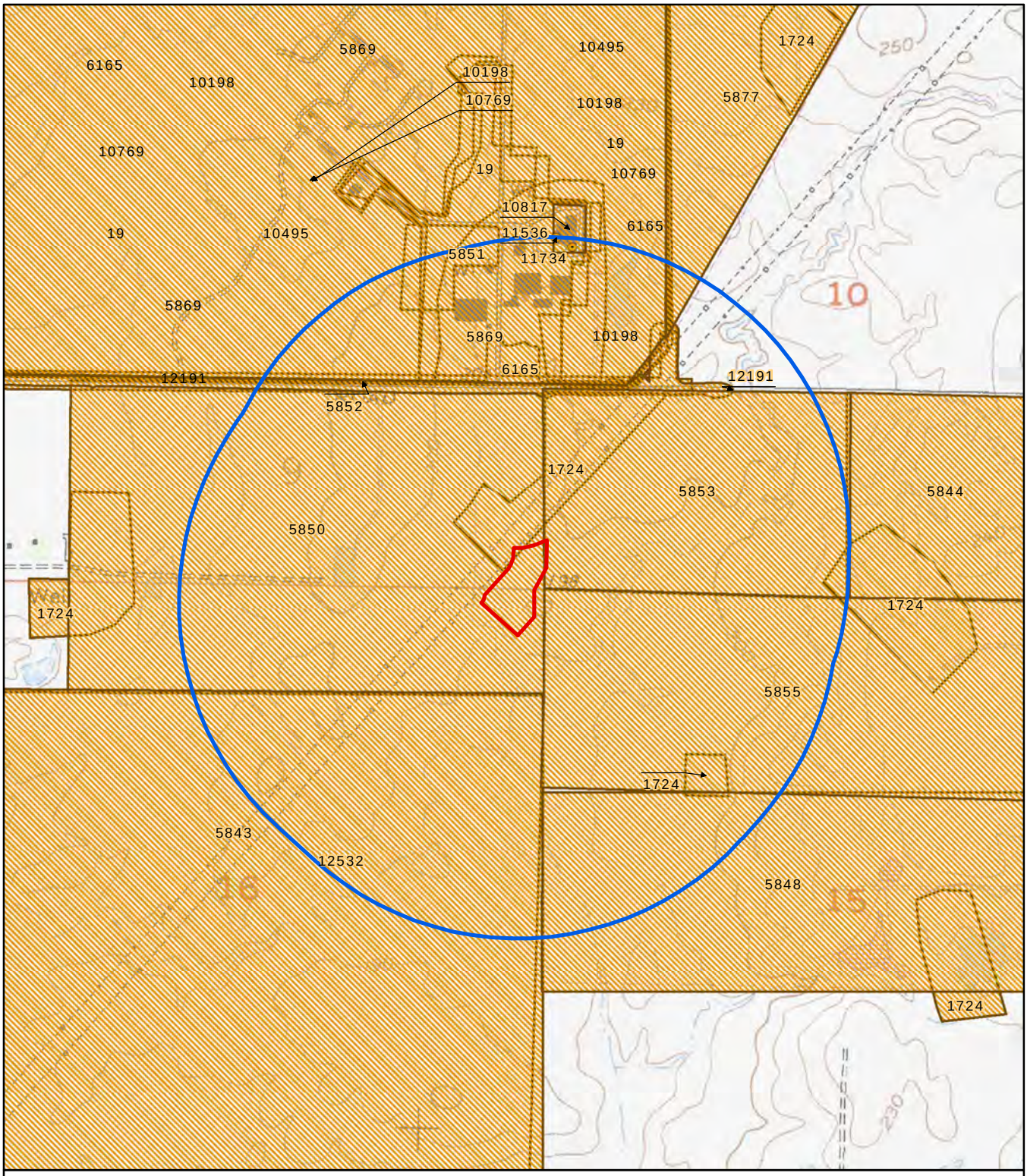
DUDEK

0 1,000 2,000 Feet
0 295 590 Meters
1:24,680

Records Search

Sunridge Energy Storage Project

Sunridge Energy Storage Project / 13267.05



North Central Information Center
Records Search Results

Buffalo Creek 7.5' Quadrangle

May depict confidential cultural resource locations.
Do not redistribute.

N

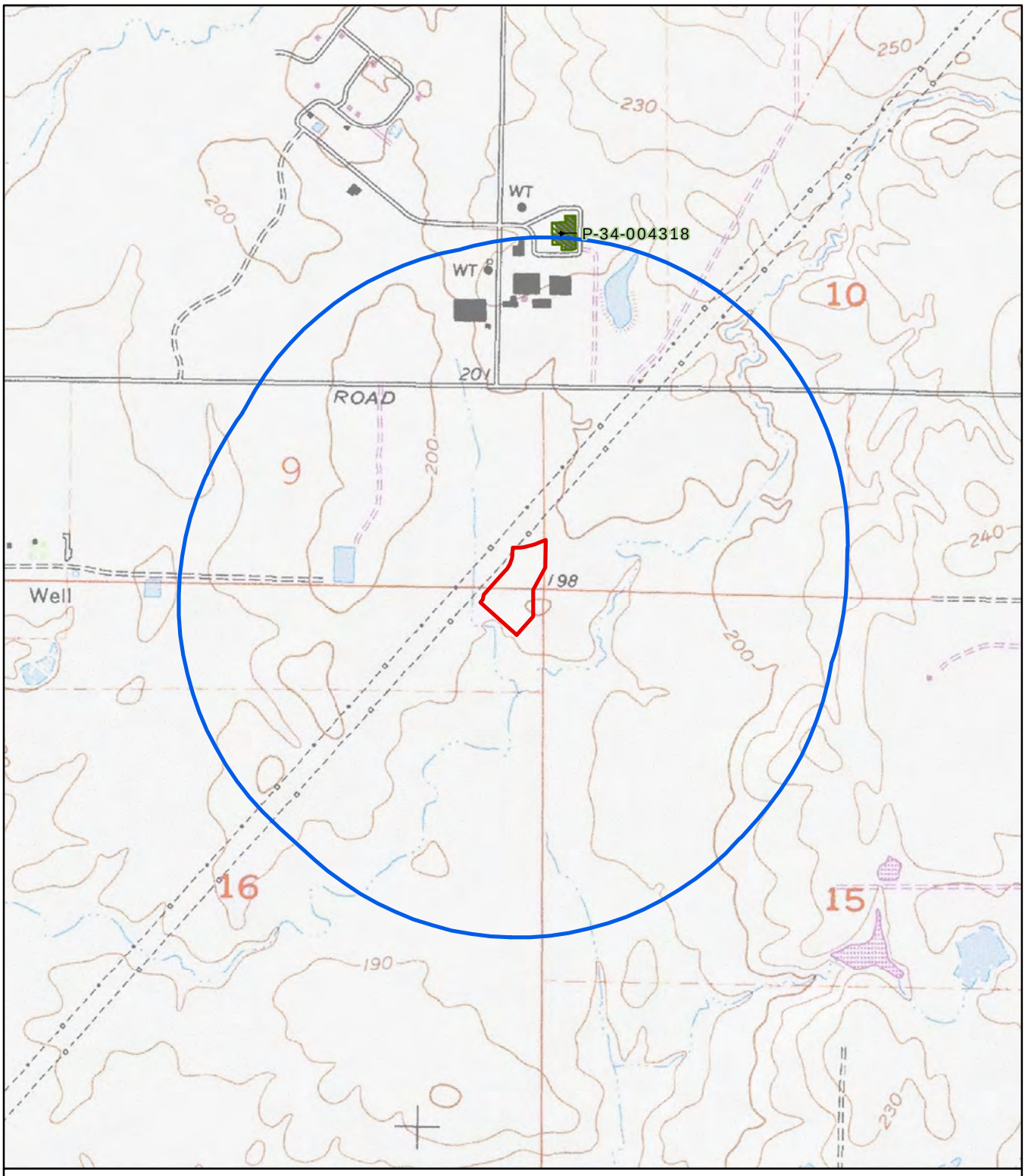
0 240 480

Meters

Findings:

1 resource
21 survey reports

Sunridge Energy Storage Project / 13267.05



N

0 240 480

Meters

North Central Information Center
Records Search Results

Buffalo Creek 7.5' Quadrangle

May depict confidential cultural resource locations.
Do not redistribute.

Findings:

1 resource
21 survey reports

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-34-004318
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 of 5 *Resource Name or #: 12525 Quicksilver Drive

P1. Other Identifier: N/A

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County: Sacramento

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Buffalo Creek, CA Date: 1980 T ; R ; ¼ of ¼ of Sec ; M.D. B.M.

c. Address: 12525 Quicksilver Drive City: Rancho Cordova, CA Zip: 95742

d. UTM: Zone: 10 ; mE/ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The Subject Property consists of a 116-foot industrial structure built in 1966. The building is located in the north-east corner of the Security Park industrial complex, which was developed beginning in 1956. The complex is located off of Douglas Road, east of the Rancho Cordova city center. The topography is flat with no vegetation.

12525 Quicksilver Drive is a modern industrial building defined by its simple geometric form. The rectangular shaped building is comprised of a taller and shorter section. The lower section is less than half the height of the tallest portion of the building, and comprises the western half of the structure's footprint. Both sections have a flat roof and no windows. The building is concrete and pressed metal. The openings on the south façade consist of a large industrial door on the lower section. The taller eastern section has large industrial doors located at each end of the building, on the north and south facades. The west façade has three industrial cargo door openings. The east façade has no openings. It is a simple utilitarian structure.

*P3b. Resource Attributes: (List attributes and codes) HP8. Industrial Building

*P4. Resources Present: ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #)
View northeast toward Subject Property; June 18, 2013; Photo accession #1.

*P6. Date Constructed/Age and Sources: ☒Historic
☐Prehistoric ☐Both
1966. Sources:
http://assessorparcelviewer.saccounty.net/GISViewer/Default.aspx
Sacramento County Assesment Records
Historic Aerials
http://www.historicaerials.com/

*P7. Owner and Address:
PSL Enterprises LLC
3920 Security Park Drive
Rancho Cordova, CA 95742

*P8. Recorded by: (Name, affiliation, and address) Tara Cubie, Architectural Historian, EBI Consulting, 11445 East Via Linda, Suite 2, #472, Scottsdale, AZ 85259

*P9. Date Recorded:
July 10, 2013

*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Proposed FCC Telecommunications Collocation Project for SF72XC539/CA3182-CUPPLANE-PHASE 1A, Sprint, 2013.

*Attachments: ☐NONE ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-34-004318
HRI#
Trinomial

*Resource Name or #: 12525 Quicksilver Drive

*Map Name: Buffalo Creek, CA *Scale: 1:24,000 *Date of Map: 1980

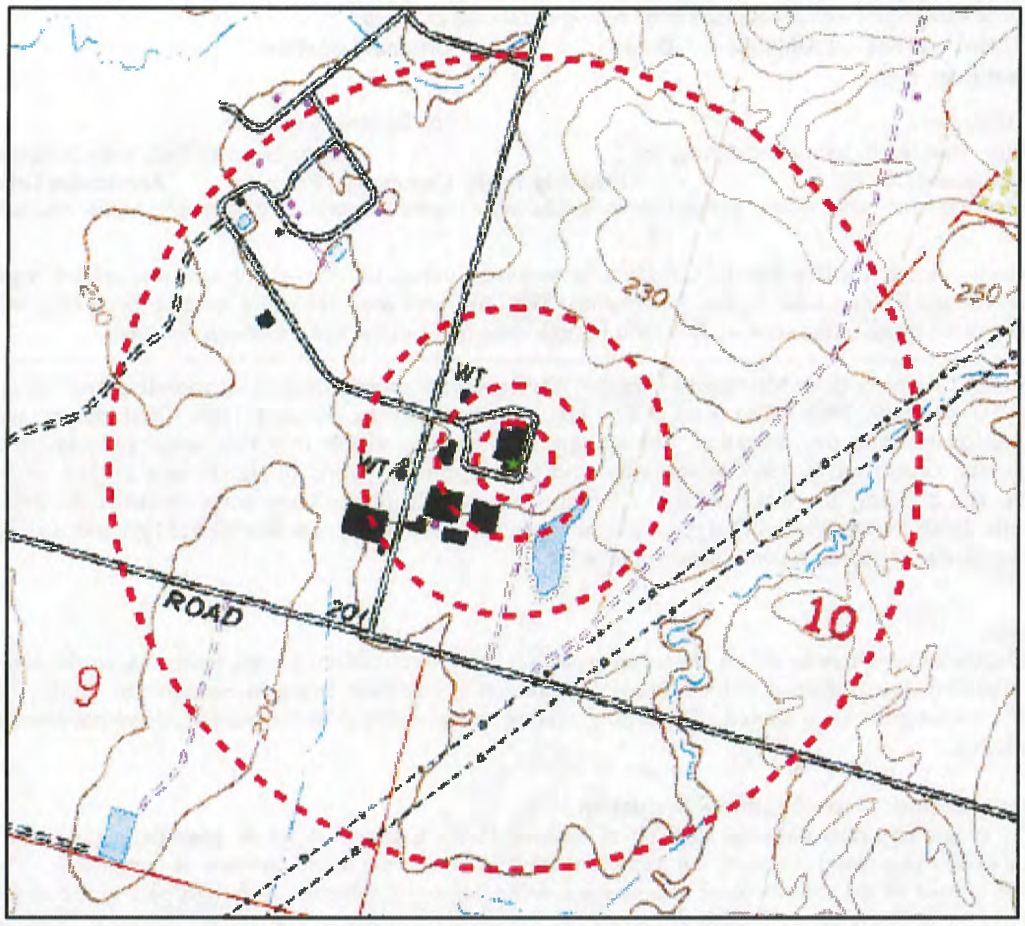


Figure 2 - USGS Quad Location Map

SF72XC539/CA3182-CUPPLANE-PHASE 1A
12525 Quicksilver Drive
Rancho Cordova, CA 95742

*Required information

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 12525 Quicksilver Drive

B1. Historic Name: Unknown
B2. Common Name: 12525 Quicksilver Drive
B3. Original Use: Industrial B4. Present Use: Industrial
*B5. Architectural Style: Modern
*B6. Construction History: (Construction date, alterations, and date of alterations)
The building was constructed c.1966 and appears to have few significant changes.
*B7. Moved? ☒No ☐Yes ☐Unknown Date: Original Location:
*B8. Related Features: none

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme: Industry and Aerospace Area: Security Park Area, Rancho Cordova, CA
Period of Significance: c.1958 Property Type: Commercial Property Applicable Criteria: C
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Subject Property is located within Rancho Cordova, Sacramento County, California. The area was originally part of the 35,500 acre Mexican land grant Rancho Rios de los Americanos. The land was used for cattle grazing beginning in the 1800s. The Natomas Company used much of the surrounding land for gold mining from the 1920s through the 1960s.

The Douglas Aircraft Company (later McDonnell Douglas) developed the project site and surrounding area for aerospace testing programs from 1956 through 1969. The Subject Property and surrounding Security Park development, was used as the administrative headquarters for this operation. The administrative area is visible in a 1957 aerial photograph of the site. The Subject Property was constructed in 1966, towards the end of the primary period of significance for the aerospace testing in Rancho Cordova. The building is a large industrial building that would fit the large scale construction needs for aerospace development. In the 1980s the McDonnell Douglas Company sold Security Park to commercial and light industrial companies. It is currently in use by Union Mine Iron, a construction contractor.

Integrity Statement
Evaluating 12525 Quicksilver Drive based on the seven aspects of integrity: location, design, materials, workmanship, feeling and association, the building has remained in its original location on Quicksilver Drive in Sacramento County. The design and materials have not been significantly altered. The setting, feeling and association of the property have not changed significantly since it was developed.

National Register of Historic Places Eligibility Evaluation
The building was evaluated under National Register of Historic Places Criterion A for its potential significance as part of any historic trends or events that may have made an important contribution to the broad patterns of our history. The building was constructed c.1966 as part of the development of aerospace technology in California. Although part of the development of the aerospace industry, the building has no significant aerospace events identified with the Subject Property. There is no significant trend or event associated with the building that merits National Register eligibility. Therefore, the building does not appear to meet the criteria for significance under Criterion A: Event.

The building was evaluated under National Register of Historic Places Criterion B for its potential significance and association with a person of importance in national history. There does not seem to be any person associated with the building that is historically significant to the level necessary for meeting the criteria for National Register of Historic Places. Therefore, the building does not appear to meet the criteria for significance under Criterion B: Person.

The building was evaluated under National Register of Historic Places Criterion C for its potential significance as a property which embodies the distinctive characteristics of a type, period, method of construction or style of Modern Industrial architecture; represents the work of a master architect, builder or craftsman; possesses high artistic values, or represents a significant or distinguishable entity whose components have individual distinction. The building is utilitarian, and a modest industrial structure constructed from standard plans. The building's style does not meet the level of significance to qualify for the National Register of Historic Places. None of the individuals responsible for the design or construction of the building have been identified, therefore, it cannot be considered to represent

(This space reserved for official comments.)

the work of a master architect, builder or craftsman. Therefore, the building does not appear to meet the criteria for significance under Criterion C: Architecture as a good example of Modern Industrial architecture.

The building was evaluated under National Register of Historic Places Criterion D for its potential significance and its ability to convey information. The building does not and is not likely to convey information important to history. In order for buildings, structures or objects to be considered significant under Criterion D, they need to "be, or must have been, the principal source of information." This is not the case for the building. Therefore, the building does not appear to meet the criteria for significance under Criterion D: Information Potential.

In summary, the building does not appear to qualify for the National Register of Historic Places under Criteria A, B, C or D. Therefore, the building is not considered to be an historic resource under the National Historic Preservation Act. The building was not evaluated for eligibility under the California Register or the local Register.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

Google Maps, www.maps.google.com/, accessed July 10, 2013

Historic Aerials, http://www.historicaerials.com/, Accessed July 10, 2013

City of Rancho Cordova, Rio del Oro Specific Plan n http://www.cityofranchocordova.org/Index.aspx?page=128 Accessed July 10, 2013

B13. Remarks: none

***B14. Evaluator:** Tara Cubie, EBI Consulting

***Date of Evaluation:** July 10, 2013

(Sketch Map with north arrow required.)
Subject Property building outlined in red. no scale

Source: 2013 Google Maps, www.maps.google.com/, accessed July 9, 2013

Continued from Primary Record, p. 1 of 4, Section P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

Photo 2. View east of 12525 Quicksilver , June 18, 2013

Photo 3. View south of 12525 Quicksilver , June 18, 2013

Photo 4. View southeast of 12525 Quicksilver , June 18, 2013

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary# 34-4318
HRI#
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

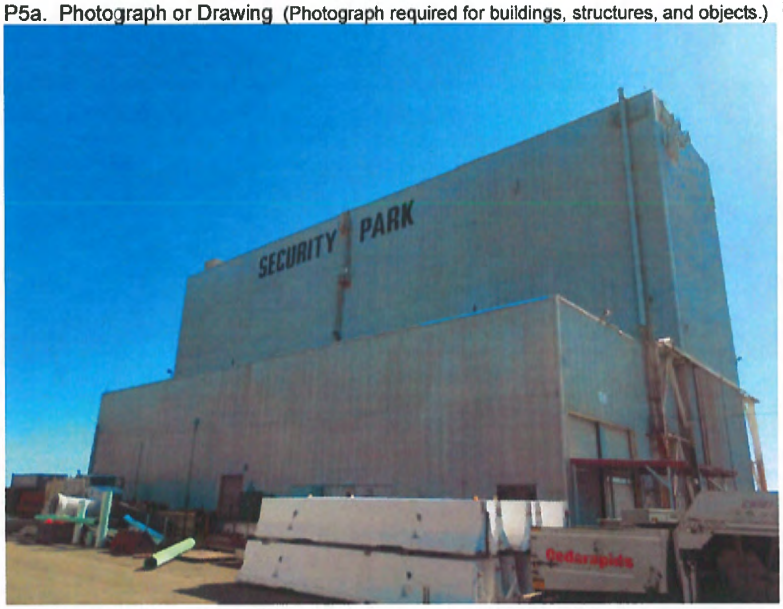
Page 1 of 7 *Resource Name or #: (Assigned by recorder) 12525 Quicksilver Drive

P1. Other Identifier: Modification Hanger (Inactive Rancho Cordova Test Site)
*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County: Sacramento and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Buffalo Creek Date 1995 T 8N; R 7E; N/A ¼ of N/A ¼ of Sec 4; B.M. MD
c. Address 12525 Quicksilver Drive City Rancho Cordova Zip 95742
d. UTM: (Give more than one for large and/or linear resources) Zone 10, 656381 mE/ 4269819 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
APN: 072-0440-013. Located on the north side of the eastern terminus of Quicksilver Drive.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
12525 Quicksilver Drive, located on the center of the parcel, was built in 1956 (per California Environmental Protection Agency, Department of Toxic Substances Control 2005) and is a vernacular style industrial building, which original served as a hanger. It occupies the center of the lot and has a south-facing orientation. It is approximately five stories with a two story portion on the west elevation. The building has a narrow rectangular plan. The building features a flat roof. Numerous panel antennas and large security lights are mounted near the top of the south, north, east, and west elevations. Two small penthouses are located on the north and south ends of the rooftop. The words "SECURITY PARK" are painted near the top of the west elevation. The walls are clad with aluminum v-beam siding.
SEE CONTINUATION SHEET

P3b. Resource Attributes: (List attributes and codes) Industrial Building – HP8

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



*P4. Resources Present: ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #) West Elevation, July 2010

*P6. Date Constructed/Age and Source: ☒Historic ☐Prehistoric ☐Both
1956 (Peak & Associates, Inc. 2005; California Environmental Protection Agency, Department of Toxic Substances Control 2005)

*P7. Owner and Address:
Private

*P8. Recorded by: (Name, affiliation, and address)
URS Corp.
1615 Murray Canyon Road, Suite 1000
San Diego, CA, 92108-4314

*P9. Date Recorded: July 2010

*P10. Survey Type: (Describe) Intensive Survey

*P11. Report Citation:
(Cite survey report and other sources, or enter "none.") Verizon Cellular Communications Tower Site – Sunridge LTE, 12525 Quicksilver Drive LTE (APN: 072-0440-013) Rancho Cordova, CA 95742, August 2010.

10817

*Attachments: ☐NONE ☐Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

*P3a. (Continued)

Only one window was observed, which is on the ground story near the south end of the west elevation. The window is multi-lite aluminum frame with vents. There are two main entries, one on the south elevation and the other on the north, which are massive two-story double doors composed of steel and aluminum v-beam siding, which slide to either side on an exterior steel frame. To the left of the south elevation main entry and near the center of the west elevation are one-story garage entries with rolling metal doors. A flat-roofed, corrugated-metal covered, steel frame overhang projects from the one-story garage entry on the south elevation. Smaller entries that are filled with single metal doors are located on the southwest corner and the northwest corner. An exterior vertical caged metal letter is mounted near the center of the west elevation that reaches from the roof of the two-story portion to the roof of the five-story portion. A square stairway or elevator shaft, which is clad in aluminum v-beam siding, protrudes from the center of the east elevation from the ground story to the roof of the fifth story. No major alterations or additions were observed. Based on observation, the building materials appear to be of historic-age. The steel frame covered area on the south elevation appears to be a later addition. It is also possible that the two-story portion is an addition, but no evidence was available to confirm it.

The lot is completely paved, surrounded by non-historic age chain link fence topped with barb wire. There is a non-historic age electric metal gate entrance on the south side. Stacks of non-historic age wood and metal items, machinery, and vehicles surround the building.

South Elevation

South and East Elevations

North and West Elevations

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # 34-4318
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 3 of 7 *NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) 12525 Quicksilver Drive

B1. Historic Name: Modification Hanger (Inactive Rancho Cordova Test Site)

B2. Common Name: Security Park

B3. Original Use: Industrial Building

B4. Present Use: Industrial Building

*B5. Architectural Style: Vernacular Industrial

*B6. Construction History: (Construction date, alterations, and date of alterations)

The building was constructed in 1956 (per California Environmental Protection Agency, Department of Toxic Substances Control 2005). Based on observation, the building materials appear to be of historic-age. The steel frame covered area on the south elevation appears to be a later addition. It is also possible that the two-story portion is an addition, but no evidence was found to confirm it.

*B7. Moved? X No ____Yes ____Unknown Date: _____ Original Location: _____

*B8. Related Features:

N/A

B9a. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme N/A Area San Francisco, CA

Period of Significance N/A Property Type Industrial Building

Applicable Criteria N/A (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The historical significance of 12525 Quicksilver Drive was determined by applying the procedure and criteria for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR).

Based on site investigations and historic research, 12525 Quicksilver Drive does not appear to possess the requisite significance to be eligible for listing on the NRHP and CRHR.

SEE CONTINUATION SHEET

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

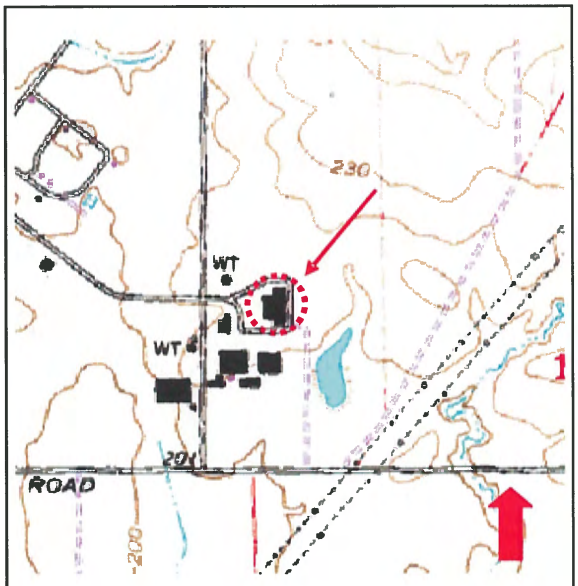
SEE CONTINUATION SHEET

B13. Remarks: None

*B14. Evaluator: URS Corporation

*Date of Evaluation: August 2010

(This space reserved for official comments.)



Buffalo Creek (1995) USGS Map

*Required information

***B10. (Continued)**

Inactive Rancho Cordova Test Site (IRCTS)

The project was historically part of the Administration and Support Area of the IRCTS, a large aerospace testing site that was bordered by Douglas Road to the south, Sunset Boulevard to the west, White Rock Road to the north, and approximately Nimbus Road to the east. The IRCTS was used for testing of various aerospace components for private industry and the U.S. government's NASA program between the mid-1950s and 1969. The following history of the IRCTS is extracted from *Final Environmental Impact Report/ Environmental Impact Statement, Volume I, Rio del Oro Specific Plan Project* prepared by AECOM (2010), unless otherwise noted.

Historical use of the IRCTS includes grazing, gold mining, and activities associated with the aerospace industry. The project site forms a part of the historic 35,500-acre Mexican land grant Rancho Rio de los Americanos—lands that were used historically for grazing since the early 1800s. A large portion of the IRCTS is still being used today as pastureland for cattle grazing. Beginning in the 1920s, most of the land in the IRCTS was acquired by the Natomas Company for bucket-line dredging of gold-bearing gravel deposits, which continued in the project vicinity through the early 1960s. The mining activities consisted of hydraulic dredging of ancient alluvial deposits to a depth of up to 120 feet. Evidence of mining activities, including the piles of dredge tailings, covers approximately 70% of the surface area of the IRCTS. Currently, a portion of the tailings is being processed for sand and gravel.

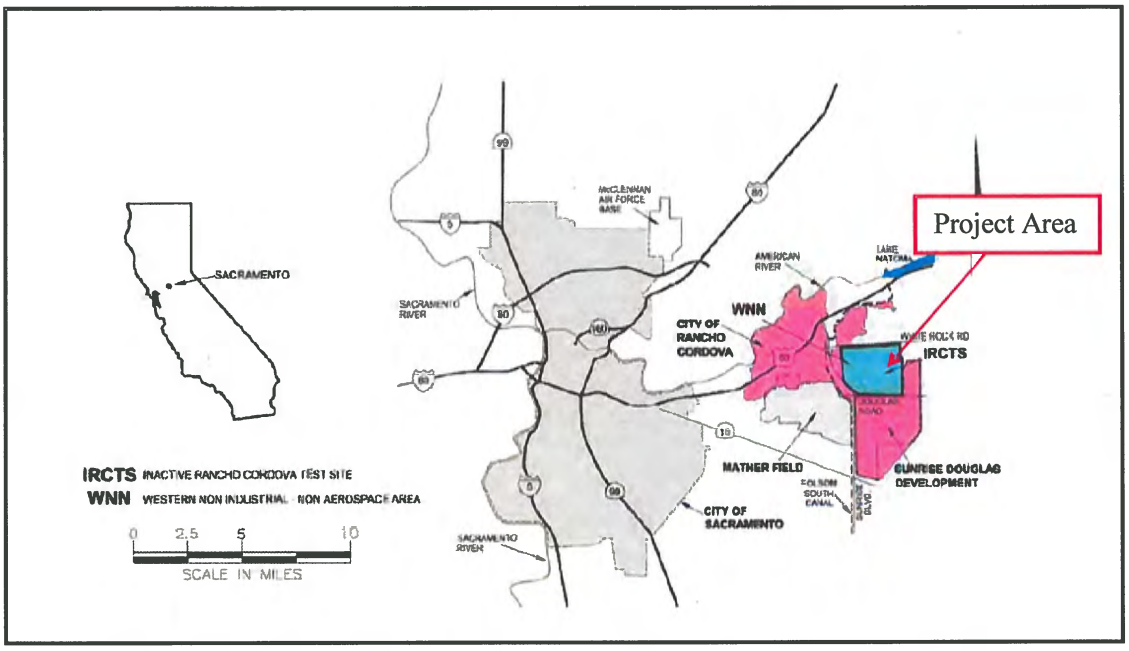
The property was sold to Aerojet in 1956 for use in development and testing of missile propulsion systems. Douglas Aircraft (later, McDonnell Douglas Corporation [MDC]) initially leased the land from Aerojet for its rocket testing activities, and then bought it outright in 1961. During this period McDonnell Douglas constructed various buildings and facilities for the Thor missile system and Saturn rocket testing program (California Environmental Protection Agency 2007). The site contained many complexes, including the Alpha Complex (1956/57, Thor missile and Titan engine testing), Beta Complex (1963/64, NASA Saturn S-IVB testing), the Kappa Complex (1961, component and subsystem development and testing), Gamma Complex (1964, NASA hypergolic engine testing), Sigma Complex (c. 1960, solid propellant missile engine static firing), DM-14/Solid Propellant Missile Assemble Area (c. 1960, Genie missiles assembly), Administration and Support Area (1959/60), and Water Propellant Burn Area (c. 1960, incineration of waste solid rocket propellant). MDC ceased operations at the site in 1969 (Peak & Associates, Inc. 2005).

From 1969 to 1976, the IRCTS was inactive, and then from 1976 to 1981, MDC leased portions of the Alpha Area to Kinetech Corporation for the production and testing of devices for increasing well water production. In 1984, the Aerojet General Corporation (Aerojet) bought the IRCTS except for the parcels that had been sold in the Administration Area. Aerojet reacquired the land for use primarily as a buffer zone from White Rock Road for rocket engine testing, but also as a place to burn excess rocket fuel and test small quantities of energetic material. Limited development of the site during this time included construction of paved and unpaved access roads, various structures and buildings, and a limited infrastructure of utilities and drainage improvements. Numerous buildings, roads, and structures associated with this more recent use remain on the site today, primarily in the southern/central portion of the project site.

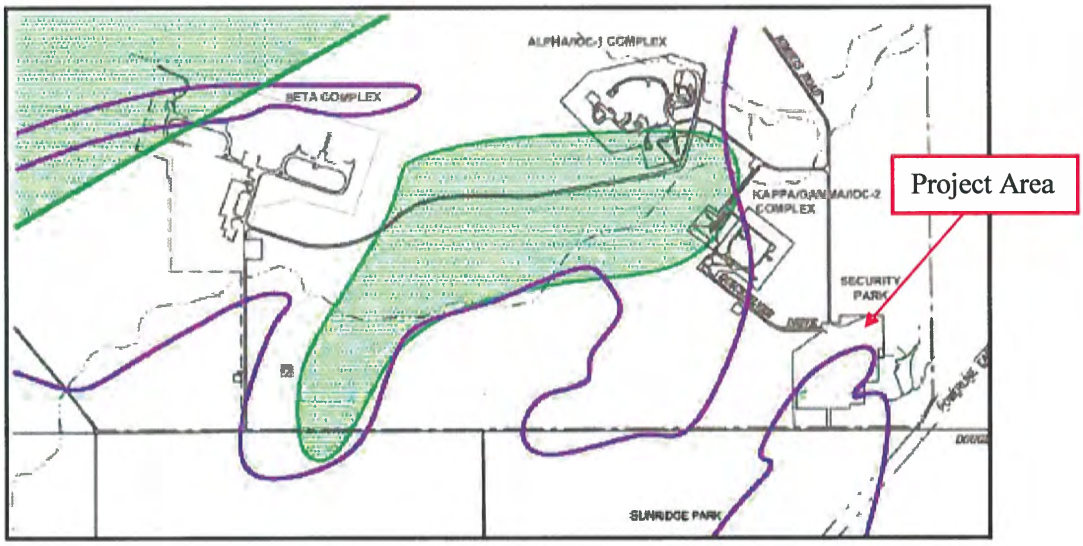
The features remaining of the IRCTS have been abandoned for about thirty years. Portions of all facilities were dismantled after abandonment, and additional efforts have been made to salvage scrap material from the various complexes over the years.

The Administration and Support Area, just north of Douglas Road, is now the Security Park. It was developed gradually in phases beginning in 1959 and 1960, with precise construction dates not known for many of the buildings (Peak & Associates, Inc. 2005). The area occupied about 70 acres within the southeastern portion of the IRCTS. Beginning in 1959 this area was used to support the Saturn manned-space vehicle program up to 1969. The Modification Hanger (the subject building) was constructed for the Thor rocket program. The entire Administration Area was converted to an industrial park in 1977. From 1977 to 1984, MDC leased or sold portions of the former Administration Area (California Environmental Protection Agency, Department of Toxic Substances Control 2005). The subject parcel contains the circa 1960 Modification Hanger, which is currently used for commercial storage. The remainder of the IRCTS is being developed as the proposed Rio del Oro project.

*B10. (Continued)



Inactive Rancho Cordova Test Site Location (California Environmental Protection Agency 2007)



Inactive Rancho Cordova Test Site Detail (California Environmental Protection Agency 2005)

*B10. (Continued)

Peak & Associates, Inc. evaluated the IRCTS in 2005 and concluded that none of the test site complexes are eligible individually or as a district for listing the National Register of Historic Places (NRHP). The current evaluation of a single building that was once part of the IRCTS concurs with the Peak & Associates, Inc. evaluation.

Criteria A and 1 (Event): The subject building is a remnant of the large IRCTS that once occupied the area. The IRCTS was used for testing of various aerospace components for private industry and the U.S. government's NASA program between the mid-1950s and 1969. The IRCTS was abandoned in part in 1969 and in whole in the 1970s. The property has been split, with the project area and surrounding buildings that were once the Administration and Support Area transformed to an industrial park and the other complexes mostly dismantled. The degradation of the physical integrity of the various complexes of the site in the 30 years since it was abandoned makes it less than a representative site to convey the appearance or importance of a mid to late twentieth century aerospace facility. The building's setting has been heavily altered and no longer retains its original or historic appearance, visual narrative, and characteristics from the period, which significantly affects the building's ability to convey the event. Therefore, the property does not appear to be eligible for listing in the NRHP under Criterion A.

Criteria B and 2 (Person): Historical research revealed that the property does not appear to be directly associated with the life and career of an individual who made important contributions to the history of the United States, California, or Sacramento County such as an important individual whose efforts shaped the aerospace industry or the U.S. government's NASA space program. Therefore, the property does not appear to be eligible for listing in the NRHP or CRHR under Criteria B or 2.

Criteria C and 3 (Design/Construction): The building does not significantly embody the distinctive characteristics of an architectural style, type or period. It is a modest example of a common industrial building type (a hanger), and is not particularly distinctive. Further, there appears to have been alterations to the building such as the addition of a steel frame covered area on the south elevation. It is also possible that the large two-story portion is an addition, but no evidence was found to confirm it. Therefore, the property does not appear to be eligible for listing in the NRHP or CRHR under Criteria C or 3.

Criteria D and 4 (Information Potential): The building does not appear to have the potential to yield important information about the aerospace industry or the U.S. government's NASA program during the period. Therefore, the property does not appear to be eligible for listing in the NRHP or CRHR under Criteria D or 4.

In addition, in order for a property to be eligible for listing in the National or State Register, besides meeting one of the above criterion, it must also retain its historic integrity. The National Register traditionally recognizes a property's historic integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. In order for a property to be eligible, it must retain some, if not most, of the aspects. Location is defined as the place where the historic-period property was constructed or the place where the historic event took place. The subject property has not been moved; therefore, retains its integrity of location. However, no historic events occurred at the site. Design is defined as the composition of elements that constitute the form, plan, space, structure, and style of a property. The building does not appear to have been significantly altered (although the two-story portion may have been a later addition) and therefore retains its integrity of design. Setting is defined as the physical environment of a historic-period property that illustrates the character of the place. The building's setting has been heavily altered and no longer retains its original or historic appearance, visual narrative, and characteristics from the period, which significantly affects the building's ability to convey the event. Therefore, the subject property has retained its integrity of setting. Materials are defined as the physical elements combined in a particular pattern or configuration to form the aid during a period in the past. Based on observation, the building materials appear to be of historic-age. Therefore, the integrity of materials has been retained. Workmanship is defined as the physical evidence of the crafts of a particular culture or people during any given period of history. The modest building does not illustrate evidence of workmanship, and is not representative of a particular culture or people. Feeling is defined as the quality that a historic-period property has in evoking the aesthetic or historic sense of a past period of time. Due to the building's significant loss of setting, the subject property lacks a sense of feeling for mid-twentieth century. Association is defined as the direct link between a property and the event or person for which the property is significant. Due to the building's significant loss of setting and feeling, the subject property lacks an association with the IRCTS and the aerospace industry of the mid-twentieth century.

In conclusion, 12525 Quicksilver Drive does not appear to be eligible for listing to the NRHP or CRHR.

***B12. (Continued)**

Advisory Council on Historic Preservation. 1991. *Balancing Historic Preservation Needs with the Operation of Highly Technical or Scientific Facilities*. Washington D.C.: Advisory Council on Historic Preservation.

AECOM. 2010. *Final Environmental Impact Report/ Environmental Impact Statement, Volume I, Rio del Oro Specific Plan Project.* http://www.cityofranchocordova.org/ftp/large_docs/Public%20FEIR-FEIS_Vol%20I.pdf. Accessed 5 August 2010.

California Environmental Protection Agency. 2005. *DTSC Proposes Groundwater Cleanup at the Inactive Rancho Cordova Test Site.* http://www.dtsc.ca.gov/SiteCleanup/Projects/upload/McDonDoug_FS_InterimRAP_1005.pdf. Accessed 8 August 2010.

California Environmental Protection Agency. 2007. *DTSC Proposes Groundwater Cleanup at the Inactive Rancho Cordova Test Site.* http://www.dtsc.ca.gov/SiteCleanup/Projects/upload/McDonDoug_FS_dRAP_1007.pdf. Accessed 8 August 2010.

California Environmental Protection Agency, Department of Toxic Substances Control. 2005. *Draft Removal Action Plan for Former McDonnell Douglas Alpha/IOC-1 Study Area, Inactive Rancho Cordova Test Site, Rancho Cordova, California.* http://www.dtsc.ca.gov/SiteCleanup/Projects/upload/mcdonnell_douglas_fs_draw_0901.pdf. Accessed 8 August 2010.

City of Rancho Cordova. 2006. *Rancho Cordova General Plan.* http://www.cityofranchocordova.org/index.aspx?page=298#a1. Accessed 8 August 2010.

Millbrooke, Anne. 1998. National Register Bulletin: Guidelines for Evaluating and Documenting Historic Aviation Properties. Washington D.C.: Department of the Interior, National Park Service.

Peak & Associates, Inc. 2005. *Determination of Eligibility and Effect for the Proposed Rio Del Oro Project Area, City of Rancho Cordova, Sacramento County, California*. Report on file at the North Central Information Center.

APPENDIX B

NAHC SLF Search

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 23, 2022

Nicholas Hanten
Dudek

Via Email to: nhanten@dudek.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Sunridge Energy Storage (13267.05) Project, Sacramento County

Dear Mr. Hanten:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Sacramento County
2/16/2022

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk
Sacramento, CA, 95811
Phone: (916) 491 - 0011
Fax: (916) 491-0012
rhonda@buenavistatribe.com

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159 — Me-Wuk
Jamestown, CA, 95327
Phone: (209) 984 - 9066
Fax: (209) 984-9269
lmathiesen@crtribal.com

Ione Band of Miwok Indians
Sara Dutschke, Chairperson
9252 Bush Street — Miwok
Plymouth, CA, 95669
Phone: (209) 245 - 5800
consultation@ionemiwok.net

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme Valdez, Chairperson
P.O. Box 580986 — Miwok
Elk Grove, CA, 95758-0017
Phone: (916) 429 - 8047
Fax: (916) 429-8047
valdezcome@comcast.net

Shingle Springs Band of Miwok Indians
Regina Cuellar, Chairperson
P.O. Box 1340 — Maidu
Shingle Springs, CA, 95682 — Miwok
Phone: (530) 387 - 4970
Fax: (530) 387-8067
rcuellar@ssband.org

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 510 — Maidu
Browns Valley, CA, 95918
Phone: (530) 383 - 7234
tsi-akim-maidu@att.net

Tsi Akim Maidu
Don Ryberg, Chairperson
P.O. Box 510 — Maidu
Browns Valley, CA, 95918
Phone: (530) 383 - 7234
tsi-akim-maidu@att.net

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn, CA, 95603 — Miwok
Phone: (530) 883 - 2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 683-6015
jtarango@wiltonrancheria-nsn.gov

Wilton Rancheria
Steven Hutchason, THPO
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Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 863-6015
shutchason@wiltonrancheria-nsn.gov

Wilton Rancheria
Dahlton Brown, Director of Administration
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
dbrown@wiltonrancheria-nsn.gov

Colfax-Todds Valley Consolidated Tribe
Clyde Prout, Chairperson
P.O. Box 4884 none — Maidu
Auburn, CA, 95604 — Miwok
Phone: (530) 577 - 3558
miwokmaidu@yahoo.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Sunridge Energy Storage (13267.05) Project, Sacramento County.

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884
Auburn, CA, 95604
Phone: (530) 320 - 3943
pcubbler@colfaxrancheria.com

Maidu
Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Sunridge Energy Storage (13267.05) Project, Sacramento County.

Appendix D
Geotechnical Site Rating

Sunridge Park LLC

SEC Canyonlands Drive and Poopenaut Court
Rancho Cordova, California

Vesper Energy Corp.

Allen, Texas

Terracon Project No. GR215725

January 10, 2022

Your Stage1 Representatives:

Alayna M. Thompson
Assistant Project Manager
Alayna.Thompson@terracon.com

John V. Romano, P.G.
Client Service Manager
Vincent.Romano@terracon.com

GEOTECHNICAL SITE RATING

Site rating is based on expected subsurface conditions and the project, or in the event the project is not known, general constructability.

Site contains average constructability concerns. Typical construction for this project type is expected with some contingency for variation as described within this report.

Visit the
CLIENT PORTAL >
to get the most out of
your Stage1 experience!

Environmental ■ Facilities ■ Geotechnical ■ Materials

YOUR SITE

DEVELOPMENT DESCRIPTION

The site covers approximately 6 acres and is planned to be developed as a Battery Energy Storage System (BESS).

See INFORMATION SOURCES for a detailed list of sources used to generate this figure.

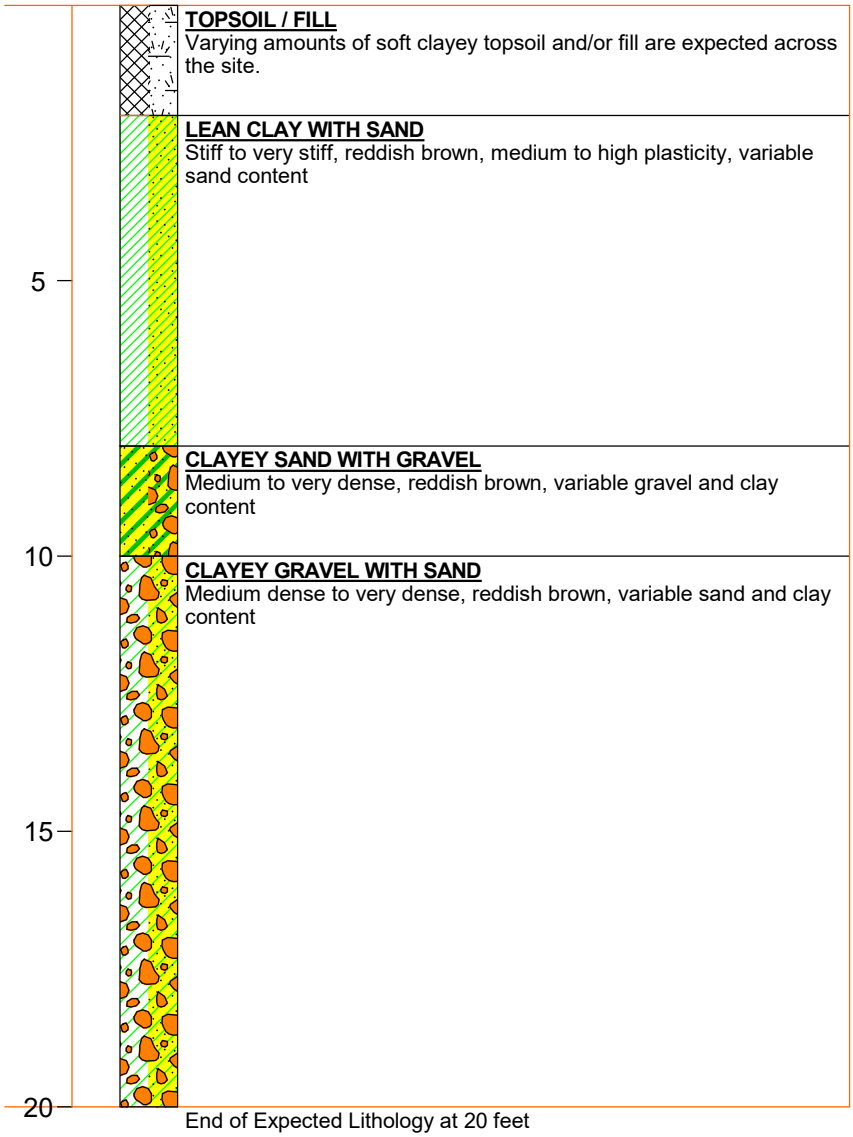
HISTORICAL AERIAL IMAGES SUMMARY

LOCATION	DESCRIPTION
Site	1993 – 2002: The site appears to be vacant land. 2003: An unimproved road or other linear feature is visible at the east edge of the northeast portion of the site. 2004: Various unimproved roads appear to intersect the site. 2005: Grading/development appears to have been started in the majority of the southern and east-central portions of the site. 2006: The majority of the site appears to have been graded including linear features and possible structures at the northeast part of the site and along the west and south sides of the site. 2007: The linear features now extend along the southeast and east portions of the site. 2008 – 2010: The linear features now appear to be drainage features along the northwestern and northern site boundaries. An apparent retaining and/or free-standing wall has been constructed along the entire eastern and southeastern boundary of the site. Construction of the substation facility southwest of the site has begun at the same time as a residential neighborhood being constructed northwest of the site. 2011 – 2012: An unimproved road appears to run along the northeastern site boundary (Poopenaut Court). Later in 2012 – 2013: The site appears to have been graded. Later in 2013 – 2021: The site is being graded, including apparent stockpiling of soils at the northeast corner. During this time span the evidence of widespread stockpiling slowly fades, the drainage feature along the northwest side of the site is being removed, and the northern portions of the wall along the east boundary of the site is apparently being removed. The site remains undeveloped.

EXPECTED LITHOLOGY

The EXPECTED LITHOLOGY noted below is subject to the CONFIDENCE ESTIMATE noted in the Stage1. The opinions of subsurface conditions are very preliminary in nature. These opinions must be validated with site-specific exploration and testing. See METHODOLOGY AND LIMITATIONS for additional clarification regarding the limitations to the following opinions and methods used to derive these opinions.

Area Represented: Entire site



MATERIAL DESCRIPTION

TOPSOIL / FILL
Varying amounts of soft clayey topsoil and/or fill are expected across the site.

LEAN CLAY WITH SAND
Stiff to very stiff, reddish brown, medium to high plasticity, variable sand content

CLAYEY SAND WITH GRAVEL
Medium to very dense, reddish brown, variable gravel and clay content

CLAYEY GRAVEL WITH SAND
Medium dense to very dense, reddish brown, variable sand and clay content

End of Expected Lithology at 20 feet

COMMENTS ON POTENTIAL VARIABILITY

- Loose topsoil and/or fill within near surface soils is anticipated on the project site.
- NRCS mapping indicates on-site soils have a low shrink-swell potential. However, based on our experience near the site, we do expect potentially expansive near surface lean clay soils will be encountered at the site at foundation bearing elevations.
- Groundwater is anticipated to be encountered at depths greater than 100 feet below ground surface (bgs) based on environmental monitoring wells located approximately 1.25 miles northwest of the site.
- Very dense gravels/cobbles greater than 3 inches dimension are anticipated approximately 10 feet bgs. These soils will cause difficulties when drilling drilled shaft foundations for the proposed developments. Gravels may also be encountered within near surface soils.

The EXPECTED LITHOLOGY was prepared as a part of this Stage1 report. It should not be utilized or distributed outside of this report. COMMENTS include, but are not limited to, potential variability of geology, lithology, and groundwater as noted.

GEOTECHNICAL CONSIDERATIONS

CONFIDENCE ESTIMATE

We have used a weighted average approach, please refer to METHODOLOGY AND LIMITATIONS.

DECREASED CONFIDENCE — We examined 3 historical projects within a 3 miles radius.

AVERAGE CONFIDENCE — Available public data is somewhat consistent with our understanding of the area.

INCREASED CONFIDENCE — Practitioner has local experience in excess of 15 years.

SITE RATING

The site was evaluated for the presence or potential presence of the following geotechnical challenges: Shallow bedrock, soft soils, dense soils, expansive soils, variable topography, previous site usage, seismicity, and underlying geologic conditions such as karst or the presence of loess. Based on this evaluation we have assigned the site a Site Rating as shown below. Please refer to our METHODOLOGY AND LIMITATIONS for more information about SITE RATING determination.

Based on the potential for encountering undocumented fill materials and/or expansive clays at the surface as well as very dense gravelly/cobbly soils as shallow as 8 feet, we consider this site to have average constructability concerns and have assigned a Site Rating of 2.

FOUNDATION DESIGN

CONSIDERATIONS	
Shallow foundation support is likely acceptable for the proposed enclosed battery energy storage systems (BESS) and power transformers/ inverters.	Yes: Typical shallow spread footings and mat/slab foundations are anticipated to be feasible at the site. However, potentially expansive near surface clays may be encountered on site. Over-excavations of the subgrade soils and replacement with imported engineered fill or chemical stabilization of subgrade soils may be required. Footings will likely need to extend below the zone of significant seasonal moisture fluctuations.
Deep foundation support is likely acceptable for proposed static masts, bus supports, and equipment support stands:	Yes: Drilled shaft foundations are anticipated to work at the site. However, very dense gravels/cobbles may be encountered within 10 feet of existing grades. This may result in difficult drilling and will likely require temporary casing or slurry drilling methods to construct drilled piers.
Anticipated Seismic Site Class:	C – Based on near surface very dense gravels/cobbles anticipated extending to depth at the site.

SITE AND CONSTRUCTION CONSIDERATIONS

CONSIDERATIONS	
Anticipated excavation equipment:	Conventional; however, difficult excavation through gravelly/cobbly soils as shallow as 8 feet should be anticipated. Such soils also have the tendency to cave and slough during excavations. Laying back of slopes, shoring, and/or formwork will likely be needed for foundation and other excavations.
Frost embedment depth:	N/A
Concern for karst:	Karst is not mapped by the USGS. Karst is not anticipated to be a concern for the site.
NRCS mapped potential for concrete corrosion due to on-site soils:	Moderate
NRCS mapped potential for steel corrosion due to on-site soils:	High
Mapped Faults on Site:	No
Mapped Faults within 0.5-mile of Site:	No
Mapped mines on Site:	No
Mapped loess on Site:	No loess or eolian soils are mapped by the NRCS. Collapsible soils are not anticipated to be a concern for the site.

SITE AND CONSTRUCTION CONSIDERATIONS NOTES

- Based on Google Earth Pro, the site topography ranges from an approximate elevation of 193 to 202 feet msl.
- A cursory review of the (publicly available) historical images indicates that portions of the site were previously disturbed and used for grading, drainage structures, and soil stockpiling. In our experience, there is an increased risk of encountering deleterious or unsuitable fill materials on a disturbed site.

- We anticipate potentially expansive near surface lean clay soils will be encountered at the site at shallow foundation bearing elevations. Mitigation measures including over-excavation and replacement with low volume change engineered fill or chemical stabilization of the subgrade soils with lime or cement will likely be required.
- Very dense gravels and/or cobbles are anticipated within the top 10 feet below existing grades at the site (these were encountered as shallow as 8 feet at a nearby site). These soils will cause difficulties for drilling proposed drilled shaft foundations for proposed static masts, bus supports, or equipment support stands. Temporary casing/slurry drilling methods will likely need to be implemented for proposed drilled shafts.
- Gravels/cobbles may also be encountered in shallow excavations for proposed shallow foundations, grounding systems, and underground conduits for utilities. Laying back of slopes, shoring, and/or formwork will likely be need for shallow excavations.

GEOTECHNICAL CONSIDERATIONS and corresponding NEXT STEPS prepared by:

Beau D. Donaldson, P.E.
Project Geotechnical Engineer
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Senior Geotechnical Engineer
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For review only.

NEXT STEPS

GEOTECHNICAL

In order to characterize the subsurface conditions, we recommend geotechnical explorations of the site. Geotechnical explorations will provide the necessary sampling and testing to provide foundation design parameter recommendations. Please refer to Terracon Proposal PNB215111 for our geotechnical exploration scope. The locations of our planned geotechnical explorations can be viewed on the client portal.

To complete the corresponding Next Steps for Geotechnical Services please contact Beau Donaldson at Beau.Donaldson@terracon.com.

INFORMATION SOURCES

TERRACON DATA	Terracon has 11 historical geotechnical projects within 3 miles of the site. Of those, the local practitioner reviewed select exploration projects to gain a better understanding of potential subsurface conditions. The geotechnical project locations are illustrated on the Client Portal.
PUBLICLY AVAILABLE GIS DATA	Alquist-Priolo Fault Traces Alquist-Priolo Fault Zones Geology with Faults
AERIAL IMAGERY	Terracon reviewed the following readily available historical aerial images and street view images available on January 3, 2022, to develop a limited history of previous site usage: Aerial Images Google Earth Pro™ Street View Images Google Maps, Google Earth Pro™ The use of available aerial imagery resources is intended to help understand previous site usage. These images are widely spaced in time. They should not be considered appropriate for identifying site activities which may have impacted subsurface conditions. A more comprehensive review of aerial imagery and/or site interviews would be required to further evaluate previous site usage.
OTHER SOURCES	State Water Resources Control Board GeoTracker. https://geotracker.waterboards.ca.gov/

METHODOLOGY AND LIMITATIONS

LIMITATIONS

This report provides very preliminary opinions of siting and construction challenges that may be associated with the stated project plans for the stated property. Confirmation of opinions stated in this document is essential. Absence of a mapped resource does not mean that it is not present. Confirmation should include performing a site-specific evaluation consistent with the guidelines set forth in NEXT STEPS.

All parties are advised that any decisions or actions taken by any party based on the information contained herein, including decisions with financial implications are done solely at the risk of that party. By providing this information in this preliminary form, Terracon expressly disclaims any duties or obligations associated with the usage of this information for decision-making or design purposes.

In the event that changes to the nature, design, or location of the project, as outlined in this report, are planned, the preliminary conclusions and recommendations contained in this report shall not be used unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing. As the project moves into the design phase, Terracon should be retained to develop and complete a scope of work that includes site-specific explorations as noted in NEXT STEPS.

Terracon and Vesper Energy Corp. recognize we have entered into an agreement that may contain certain confidential or non-disclosure obligations relating to our services. Vesper Energy Corp. recognizes, however, that although such confidentiality obligations may be in place, those obligations do not create an exclusive relationship between the parties nor do those obligations create an exclusive ownership right to Vesper Energy Corp. relating to the data in question. Terracon has the unfettered ability to provide similar services to any other party and use any public or previously available data for the service of others, even if included as part of this report, but Terracon will refrain from disclosing confidential information of Vesper Energy Corp. which is provided by Vesper Energy Corp. to the extent required by any applicable non-disclosure agreement.

Terracon does not represent the imagery reviewed to be a complete historical record of previous site usage, nor does Terracon validate the accuracy and sufficiency of the public domain sources that have been utilized.

METHODOLOGY

CONFIDENCE ESTIMATE OF EXPECTED LITHOLOGY

Terracon has assigned confidence estimates for the datasets based on upon the engineer's local practice in the vicinity of the site. The engineer assigned a subjective confidence opinion of decreased, average, or increased for each of the following categories:

- Historical Project Data
- Local Experience
- Public Data

Using a weighted averaging approach, we derived an overall confidence interval in which historical project data was weighted more heavily than local experience which was weighted more heavily than public data. Decreased confidence implies that the level of available data and/or consistency is such that little confidence can be placed in the Geotechnical Considerations. Conversely, an increased confidence ranking implies that sufficient data and consistency exists to derive a high confidence in the statement of expected lithology.

Regardless of the confidence ranking, actual conditions may vary significantly from the predicted conditions, and the expected conditions must be confirmed with site-specific exploration data, and significant variations from the expected conditions are possible.

GEOTECHNICAL SITE RATING

The site was evaluated for the presence or potential presence of the following geotechnical challenges: Shallow Rock, Soft Soil, Expansive Soil, Variable Topography, Previous Site Usage, Seismicity, and Underlying Geologic conditions such as Karst or the presence of Loess.

Conventional construction methods likely suitable. No obvious geotechnical and/or geologic constraints.

Project contains average constructability concerns. Typical construction for this project type is expected with some contingency for variation as described within this report.

Project contains above average constructability concerns. Geotechnical and or geologic constraints likely present that warrant further studies and/or mitigation beyond what is typical.

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Appendix E

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

SUNRIDGE STORAGE

POOPENAUT COURT, RANCHO CORDOVA, SACRAMENTO COUNTY, CALIFORNIA

Prepared for:

Vesper Energy Development, LLC
909 Lake Carolyn Parkway, Suite 260
Irving, Texas 75039

Prepared by:

EA Engineering, Science, and Technology, Inc., PBC
301 Metro Center Boulevard, Suite 102
Warwick, Rhode Island 02886

July 2021

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PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

SUNRIDGE STORAGE
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Warwick, Rhode Island 02886

Final to be signed

Frank B. Postma, LSP, LEP, P.G.
Senior Project Manager

July 2021
EA Project No. 6361203

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LIST OF ACRONYMS AND ABBREVIATIONS

APN	Assessor Parcel Number
ASTM	ASTM International
bgs	Below ground surface
CalEPA	California Environmental Protection Agency
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERS	California Environmental Reporting System
CPS–SLIC	Cleanup Program Sites – Spills, Leaks, Investigations, and Cleanups
COC	Contaminant of concern
CORRACTS	Resource Conservation and Recovery Act Corrective Action Sites
DTSC	Department of Toxic Substances Control
EA	EA Engineering, Science, and Technology, Inc., PBC
ECHO	Enforcement & Compliance History Information
EDR	Environmental Data Resources, Inc.
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Registry
ft	Feet (foot)
GE	General Electric
HAZNET	Facility and Manifest Data
HWTS	Hazardous Waste Tracking System
IRCTS	Inactive Rancho Cordova Test Site
LC-SCDSP	Limited Commercial – Sunridge Specific Plan
LEP	Licensed Environmental Professional
LSP	Licensed Site Professional
LUST	Leaking underground storage tank
NPL	National Priorities List
P.G.	Professional Engineer
RCRA	Resource Conservation and Recovery Act
RCRA-SQG	Resource Conservation and Recovery Act – Small Quantity Generator
RCRA-TSDF	Resource Conservation and Recovery Act – Treatment, Storage, Disposal Facilities
REC	Recognized environmental condition

Sacramento Co. ML	Master Hazardous Materials Facility List of Sacramento County
SEMS – ARCHIVE	Superfund Enterprise Management System Archive
SMUD	Sacramento Municipal Utility District
Subject site	Approximately 21 acres, positioned in the northern portion of the Shasta County Tax Assessor Parcel Number 018-530-038-000
TCE	Trichloroethene
USGS	U.S. Geological Survey
Vesper Energy	Vesper Energy Development, LLC

EXECUTIVE SUMMARY

EA Engineering, Science, and Technology, Inc., PBC (EA) has performed a Phase I Environmental Site Assessment (ESA) of the subject site consisting of Assessor Parcel Number 0670-780-0110-000, approximately 5.67 acres in area within Sacramento County, California (the "subject site"). The subject site is located in Rancho Cordova, a city within the Sacramento Metropolitan Area. EA has prepared this Phase I ESA for Vesper Energy Development LLC, in accordance with EA Proposal Number 0731545, dated 12 April 2021. This assessment was performed in conformance with the scope of work developed by EA pursuant to the ASTM International E-1527-13, Standard Practice for ESAs; Phase I ESA Process.

EA has reviewed the standard federal and state environmental databases and determined that no listings are anticipated to have impacted the environmental integrity of the subject site. EA's review of historical resources and landowner interviews indicate that the subject site was primarily agricultural and undeveloped land since the 1890s. EA also performed a site reconnaissance on 15 June 2021 (EA 2021).

The results of the site reconnaissance, owner and operator interviews, local government inquiries, prior environmental reports, and review of federal and state environmental databases provided by Environmental Data Resources, Inc. has identified one Controlled Recognized Environmental Condition (CREC) and two historical RECs associated with the subject site.

- The Inactive Rancho Cordova Test Site (IRCTS) Administration Area at Douglas Road, located upgradient and approximately 1,909 ft north of the subject site, is listed in the Cleanup Program Sites – Spills, Leaks, Investigations, and Cleanups and California Environmental Reporting System databases. The 4,000-acre property is an inactive rocket testing facility currently owned and operated by Aerojet-General Corporation. Groundwater remediation is ongoing since 2004. The property is planned for the Rio Del Oro development consisting of housing, commercial, and office facilities. The site currently has a cleanup status of Open – Remediation since 23 April 2012. The surface soils have been remediated to cleanup levels specified by Department of Toxic Substances Control. Soil vapor extraction is complete, and the system has been shut down. A groundwater extraction system has been implemented and is controlling the downgradient migrations of the plume. The groundwater remediation is currently covered IRCTS Southern Groundwater. The Annual Groundwater Monitoring Report dated 4 May 2021, by Montgomery & Associates, indicated that the groundwater from the property generally flows to the west and southwest based on 20 years of data. The report indicated that the extraction wells continue to operate and are effective and controlling the migration of trichloroethene and perchlorate impacted groundwater (Montgomery & Associates 2021). The subject site is located south of the IRCTS property. Due to the proximity and upgradient location of this property from the subject site, this listing would be considered a REC. However, as the impacts have been investigated, remediated and the residual impacts are currently being controlled under regulatory oversite, this site is classified as a controlled REC.

- The former General Electric (GE) Company facility occupied two buildings within an industrial park named Security Park (formerly known as the Administration area and part of the 4,000-acre site called IRCTS listed above) to the north of the subject site. A Resource Conservation and Recovery Act Facility Assessment (RFA) was completed in July 1998 identifying constituents of concern including VOCs such as acetone, trichloroethylene, methanol and 1,1,1-trichloroethane. An additional investigation was recommended. The National Priority List Unit of Department of Toxic Substances Control's Brownfields and Environmental Restoration Program provided analysis of the RFA report indicating that no additional investigation was required. This was based on an analysis of soil in the unsaturated zone. Correction action was terminated at the former GE Medical Systems facility. In addition, no volatile organic compounds were detected in sections of the Administrative Area used for storage and disposal by the former GE Medical Systems operations. Therefore, a No Further Action letter was issued to the facility on 30 July 2009. This listing is considered a historical REC.

- Azteca Construction Inc. at 3871 Security Park Drive located upgradient and approximately 0.49 miles of the subject site was listed in the Leaking Underground Storage Tank database. The site was listed for soil contamination with diesel. The case was closed on 24 February 1997. Due to the distance and date of this listing, it is not considered to impact the environmental integrity of the subject site, however, this finding is considered a historical REC.

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1. INTRODUCTION

1.1 PURPOSE

The purpose of the Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible pursuant to the process prescribed in ASTM International (ASTM) E-1527-13 (ASTM 2013), recognized environmental conditions (RECs) in connection with the property. A REC is defined as 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. The ASTM E-1527-13 practice constitutes All Appropriate Inquiries for the purpose of Landowner Liability Protections, under the Comprehensive Environmental Response, Compensation, and Liability Act. This report reflects the observations, information, and data collected by EA Engineering, Science, and Technology, Inc., PBC (EA) during the period from 11 June to 2 July 2021. Supporting documentation is provided in the appendixes as follows:

- Appendix A—Figures
- Appendix B—User Provided
- Appendix C—Regulatory Records Documentation
- Appendix D—Environmental Data Resources, Inc. (EDR) Database Report
- Appendix E—Historical Research Documentation
- Appendix F—Photograph Log
- Appendix G—Resumes of Environmental Professionals.

1.2 DETAILED SCOPE OF SERVICES

This Phase I ESA was performed in accordance with ASTM E-1527-13 (Standard Practice for ESAs: Phase I ESA Process) and consists of a review of current and historical activities and conditions at the subject site and surrounding properties, including a non-intrusive visual inspection of the property; review of local, state, and federal regulatory database records; review of available historic records; and a survey of adjacent land uses. The site reconnaissance does not address non-ASTM considerations such as asbestos, lead-based paint, drinking water quality, or radon, nor does it include sampling of surface water, sampling of groundwater, or an intensive examination of facility hazards (compliance audit).

1.3 SIGNIFICANT ASSUMPTIONS

In expressing the opinions stated in this report, EA exercised the degree of skill and care ordinarily exercised by a reasonable, prudent Environmental Professional in the same community and the same timeframe given the same or similar facts and circumstances. EA assumes that the client, as set forth in the contractual agreement, is also the user as defined by ASTM E-1527-13. Documentation and data provided by the user, designated representatives thereof, or other interested third parties, or from the public domain, and referred to in the preparation of this assessment, were used and referenced. Consequently, EA assumes no responsibility or liability for the accuracy of such documentation or data.

The independent conclusions in this report represent EA's professional judgment based on information and data available to EA during the course of this assignment. Factual information regarding operations, conditions, and test data provided by the user or their representative are assumed to be correct and complete. The conclusions presented are based on the data provided, observations, and conditions that existed on the date of the site visit.

1.4 LIMITATIONS AND EXCEPTIONS

EA does not warrant that there are no toxic or hazardous materials, or contamination or indoor air impact; nor does EA accept any liability if such are found at some future time or could have been found if sampling or additional studies were conducted. EA does not assume responsibility for other environmental issues that may be associated with this subject property.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, EA cannot be responsible for changes in laws, regulations, or guidelines that occur after the study has been completed and that may affect the subject property.

This report was prepared for Vesper Energy Development, LLC (Vesper Energy) by EA and was based, in part, on third-party information not within the control of Vesper Energy or EA. While it is believed that the third-party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither Vesper Energy nor EA guarantee the accuracy thereof.

1.5 SPECIAL TERMS AND CONDITIONS

No special terms or conditions were associated with this ESA.

1.6 USER RELIANCE

This report is exclusively for the use and benefit of Vesper Energy, its affiliates, and parties providing financing relating to the Sunridge Storage project located at Rancho Cordova, Sacramento County, California. This report is not for the use or benefit of, nor may it be relied upon by, any other person or entity without the advance written consent of EA.

2. SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

EA has performed a Phase I ESA of the property located at Assessor's Parcel Number (APN) 0670-780-0110-000, in Poopenaut Court, Rancho Cordova, California 95742 (the "subject site"). The subject site consists of approximately 5.67 acres of land and is currently undeveloped land. Review of information from the Sacramento County Tax Assessor documentation indicates that the Parcel is owned by Sunridge Park, LLC. The location of the subject site, as depicted on the U.S. Geological Survey (USGS) Topographic Map, is shown on Figure 2-1 (Appendix A). The property boundaries of the subject site are depicted on Figure 2-2 (Appendix A).

2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The subject site is located in northern California approximately 16 miles east of Sacramento and 5 miles east of the Sacramento Mather Airport. According to the Sacramento County Assessor Parcel Viewer, the subject site is currently zoned as "limited commercial." The subject site is bounded by undeveloped land to the east, limited commercial land to the west and southwest, and a recreational park to the north. Access to the subject site is provided via Canyonlands Drive from the northwest.

2.2.1 Topography

The subject site is located on the USGS 7.5-minute topographic Buffalo Creek Quadrangle map at approximately 197 feet (ft) above mean sea level as shown on Figure 2-1 (Appendix A) (USGS 2012). The topography of the subject site is generally flat.

2.2.2 Geology

The subject site is underlain by stratified sequence of Quaternary alluvium from the Quaternary System, Cenozoic era (EDR 2021). This information was verified with the Geologic Map of the Weed Quadrangle, California, at a scale of 1:250,000, from the California Department of Conservation (Wagner and Saucedo 1987).

2.2.3 Hydrology

The EDR Radius Map indicates that there are 16 wells proximal to the subject site. The closest USGS well for which water level data are recorded is located 4,313 ft west with a groundwater level of 128.83 ft below ground surface (bgs) and well depth at 174 ft bgs. Another well located 4,607 ft east-south-east of the subject site. The groundwater level was recorded at 160 ft bgs and well depth at 205 ft bgs. Several monitoring wells were located between 1,143 and 4,200 ft of the subject site. Many of the wells are monitored continuously with testing for water quality parameters. Elevated levels of volatile organic compounds, including trichloroethene (TCE) and cis-1,2-dichloroethylene, were observed.

2.2.4 Soils

The U.S. Department of Agriculture's Natural Resources Conservation Service and Soil Conservation Service (2021) indicated the subject site was underlain primarily by Redding loam and Fiddyment loam. Redding loam is moderately well drained, gravelly loam with more than 35 percent silt-clay material. Fiddyment loam is well drained, fine sandy loam with more than 35 percent silt-clay material (EDR 2021).

2.3 CURRENT USE OF THE PROPERTY

The subject site is currently undeveloped with vegetation.

2.4 DESCRIPTION OF ONSITE STRUCTURES, ROADS, AND IMPROVEMENTS

The subject site does not contain any structures or improvements. An unpaved dirt road is located along the perimeter to the southwest, south, and northeast of the subject site.

2.5 CURRENT USE OF ADJOINING PROPERTIES

Adjoining properties and the general region consist of undeveloped land, municipal facilities, and residential homes. The subject site is bounded by undeveloped land to the east, a transmission switchyard to the south, Poopenaut Court Road to the east, and Canyonlands Drive to the west, beyond which are high tension lines and a residential neighborhood. Sunridge Park containing a field, swimming pool, and basketball court is located across Canyonlands Drive to the north.

3. USER PROVIDED INFORMATION

The ASTM E1527-13 User Questionnaire was submitted to potential future user/property lessee Mr. Austin Porter (Porter 2021) of Vesper Energy, and to the owner/property manager, Mr. Brian Vail (Vail 2021). Mr. Porter stated that he has been associated with the property for approximately 6 months during the due diligence period. Mr. Vail indicated that he has been associated with the property for the past 18 years. Their responses are discussed below. Copies of the completed questionnaires are provided in Appendix B.

3.1 TITLE RECORDS

Mr. Porter and Mr. Vail indicated that the property address is Poopenaut Court Rancho Cordova, California 95742. An official land title was not provided by the owner of the subject site and was not available for review. A copy of the current deed was provided by EDR in the Environmental Lien/Activity Use Limitation Report, included in Appendix C.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Mr. Porter indicated that there were no environmental cleanup liens or activity and use limitations on the property. Mr. Vail indicated that he was unaware of any environmental liens or land use restrictions on the property. EA also reviewed the EDR Lien/Activity Use Limitation Report; no Liens or Activity Use Limitations on the subject site were reported.

3.3 SPECIALIZED KNOWLEDGE

Mr. Porter indicated that he has been associated with the property for approximately 6 months during the due diligence process. Mr. Porter indicated that he does not have any specialized knowledge or experience related to the property or nearby properties. Mr. Vail indicated that Boeing and Aerojet are involved in a Superfund cleanup in the area.

3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Mr. Porter and Mr. Vail indicated that the subject site is leased and the purchase price for the project and assumption of the lease reflects fair market value.

3.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The Users were questioned regarding commonly known or reasonably ascertainable information about the property that would help the Environmental Professional identify conditions indicative of releases or threatened releases such as past uses of the property, specific chemicals that are present or once were present at the property, spills or other chemical releases that have taken place on the property, or any environmental cleanups that have taken place at the property.

Mr. Porter indicated that he has no knowledge of the past uses of the property. Mr. Vail indicated that the land was historically fallow.

3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Mr. Porter indicated that he is the user of the subject site with an option to lease. Mr. Vail indicated that he is the current property owner at the subject site.

3.7 REASON FOR PERFORMING THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

Vesper Energy informed EA that this report had been contracted as part of the potential lease of the subject site.

3.8 OTHER

The documents provided by Vesper Energy and Mr. Vail are summarized below and included with Appendix B:

- ***Settlement Agreement and Release, 9 February 2016.*** This settlement and agreement release is between Sun Ridge, LLC, as the Plaintiffs, and Aeroject General Corporation and Cordova Chemical Company and the Boeing Company and McDonnell Douglas Corporation, as the defendants. The Plaintiff's Complaint alleges that, as a result of contaminants of concern (COCs) in the groundwater in the eastern portion of Sacramento County, the costs of their development activities in the eastern portion of Sacramento County have increased. The case was settled with the County paying the Plaintiffs $5,000,000 and the Defendants paying the Plaintiffs $1,000,000.

4. RECORDS REVIEW

A Database Report with radius map was obtained from EDR on 11 June 2021 for use as part of this Phase I ESA. The Database Report was obtained to fulfill the requirements pertaining to standard environmental record sources. The following distances were used to assess to potential for vapor migration to impact the subject site from offsite properties by petroleum hydrocarbon COCs and/or COCs included in Table X6.1 of the Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions (E2600-10). Petroleum hydrocarbon COCs are those volatile petroleum hydrocarbon compounds that are a subset of the COC list and that readily biodegrade to carbon dioxide or water by soil microbes in aerated environments.

- ***Upgradient Sites***—528 ft (1/10 mile) for sites with petroleum hydrocarbon COCs, and 1,760 ft (1/3 mile) for sites with volatile or semivolatile COCs.

- ***Crossgradient Sites***—528 ft (1/10 mile) for sites with petroleum hydrocarbon COCs, and 1,760 ft (1/3 mile) for sites with volatile or semivolatile COCs.

- ***Downgradient Sites***—100 ft for all.

4.1 STANDARD FEDERAL, STATE, AND TRIBAL ENVIRONMENTAL RECORDS

The following standard federal, state, and tribal environmental record sources were reviewed as part of this Phase I ESA:

- Federal National Priorities List (NPL)

- Federal Delisted NPL site list

- Federal Comprehensive Environmental Response, Cleanup, and Liability Information System (CERCLIS) list

- Federal CERCLIS–No Further Remedial Action Planned site list

- Federal Resource Conservation and Conservation Act (RCRA) Corrective Action Sites (CORRACTS) facilities list

- Federal RCRA non-CORRACTS Treatment, Storage, and Disposal facilities list

- Federal RCRA generators list

- Federal Institutional Control/Engineering Control registries

- Federal Emergency Response Notification System

- State- and Tribal-equivalent CERCLIS

- State and Tribal Landfill and/or Solid Waste Disposal sites lists
- State and Tribal Leaking Underground Storage Tank (LUST) list
- State and Tribal Registered Storage Tanks list
- State and Tribal Institutional Control/Engineering Control registries
- State and Tribal Voluntary Cleanup sites
- State and Tribal Brownfield sites
- State- and Tribal-equivalent NPL.

An additional 80 ascertainable databases were searched by EDR in conjunction with the standards database search. A complete listing of all databases associated with environmental record sources is provided directly within the EDR Database Report (Appendix D).

The subject site was identified in the following databases:

- *Sacramento Municipal Utility District (SMUD) Cordova Substation*, *4151 Poopenaut Court*, was listed at the target property. Google Earth indicates that the property is located adjoining the subject site to the south. The property is listed in the Facility Index System/Facility Registry System (FINDS), Master Hazardous Materials Facility List of Sacramento County (Sacramento Co. ML), and California Environmental Reporting System (CERS) databases. No violations were reported in connection with the property. The CERS database indicates that the site was listed as a chemical storage facility that underwent an evaluation inspection on 20 July 2017, in connection with a Hazardous Material Release Response Plan. No violations were noted at the time of the inspection.

Upgradient facilities within 0.5 miles have the potential to adversely impact the groundwater, soil vapor, and/or soil beneath the subject site. Database findings indicated that there were two facilities within ASTM-recommended search distances of the subject site associated with the standard environmental records sources. Of these listings, one listing is located southwest of the subject site in Rancho Cordova, and the remaining listing is located north of the subject site. These listings are described below:

- *Inactive Rancho Cordova Test Site (IRCTS) – Administration Area, Douglas Road*, located upgradient approximately 1,909 ft north of the subject site, is listed in the Cleanup Program Sites – Spills, Leaks, Investigations, and Cleanups (CPS-SLIC) and CERS databases. The 4,000-acre property is an inactive rocket testing facility currently owned and operated previously by Aerojet-General Corporation. Groundwater remediation is ongoing since 2004. The property is planned for the Rio Del Oro development consisting of housing, commercial, and office facilities. The

site currently has a cleanup status of Open – Remediation since 23 April 2012. The surface soils have been remediated to cleanup levels specified by the Department of Toxic Substances Control (DTSC). Soil vapor extraction is complete, and the system has been shut down. A groundwater extraction system has been implemented and is controlling the downgradient migrations of the plume. The groundwater remediation is currently covered IRCTS Southern Groundwater. The Annual Groundwater Monitoring Report dated 4 May 2021, by Montgomery & Associates, indicated that the groundwater from the property generally flows to the west and southwest based on 20 years of data. The report indicated that the extraction wells continue to operate and are effective and controlling the migration of the TCE and perchlorate-impacted groundwater (Montgomery & Associates 2021). Due to the proximity and upgradient location of this property from the subject site, this listing would be considered a REC. However, as the impacts have been investigated, remediated and the residual impacts are currently being controlled under regulatory oversite, this site is classified as a controlled REC.

- *General Electric Medical Systems*, *3920 Security Park*, located upgradient approximately 1,983 ft north of the subject site, is listed in the Superfund Enterprise Management System Archive (SEMS-ARCHIVE); CORRACTS; Resource Conservation and Recovery Act – Treatment, Storage, and Disposal Facilities (RCRA-TSDF); RCRA – Small Quantity Generator (RCRA-SQG); FINDS, Enforcement & Compliance History Information (ECHO); Facility and Manifest Data (HAZNET); Hazardous Waste Tracking System (HWTS); and California DTSC EnviroStor online database (2021).

  The former General Electric (GE) Company facility occupied two buildings within an industrial park named Security Park. The industrial park formerly known as the Administration Area is part of the 4,000-acre IRCTS property. GE Systems began operation at the property in 1979. In late 1980, GE Systems installed a transducer fabrication laboratory at the site. The laboratory was used to fabricate transducers for evaluation of transducer design and electronic interfacing and for development of a production process. In 1980, GE Medical Systems operated a wastewater treatment system and discharge the treated wastewater to the facility's septic system and leach field. The treatment system was used to process all rinse water from the plating operations and all other wastes from two chemical fume hoods. In 1982, GE Medical Systems moved the wastewater treatment system from 3920 Security Park Drive to neighboring 3890 Security Park Drive and began discharging the treated wastewater to that building's septic system. Adjacent to this septic tank was a fenced hazardous waste storage area used to store wastes such as cyanides, acids, alkalis, lead oxides, solvents, and resins. GE Medical Systems submitted a Closure Plan for the facility on 30 November 1987. A No Further Action letter was issued to the facility on 30 July 2009. This listing is considered a historical REC (EDR 2021).

- Azteca Construction Inc. at 3871 Security Park Drive located upgradient and approximately 0.49 miles of the subject site was listed in the LUST database. The

site was listed for soil contamination with diesel. The case was closed on 24 February 1997. Due to the distance and date of this listing, it is not considered to impact the environmental integrity of the subject site, however, this finding is considered a historical REC.

No additional facilities were identified as "orphan" sites.

4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

4.2.1 State Regulatory Environmental Records

EA was able to review and download regulatory files on the California DTSC EnviroStor online database, the State Water Resources Control Board Geotracker online database (California State Water Resources Control Board 2021), and the California Environmental Protection Agency (CalEPA) Regulated Site Portal (CalEPA 2021). The information available on these statewide websites includes regulatory records on file with government agencies generally dating back to the early 1990s. These databases have been cross-referenced with the listings in the EDR report discussed in Section 4.1 of this report.

EA also submitted a Freedom of Information Act request to the Regional Records Coordinator at the CalEPA on 17 June 2021, to inquire about reports or investigations of oil or hazardous material releases at the subject site. EA received a response from the Government Information Specialist at the National FOIA office, indicating that all information related to the property could be obtained on the 'MyProperty' EPA online search tool. A search performed on 'MyProperty' did not locate any records for the subject site. A copy of the search tool response is included in Appendix C.

4.2.2 Zoning/Land Use Records

EA reviewed the Sacramento County Assessor Parcel Viewer on the Sacramento County website on 23 June 2021. For the subject site, the current general plan land use designation is for Limited Commercial – Sunridge Specific Plan (LC-SDSP) (Sacramento County 2021). Copies of the planning maps are provided in Appendix C.

4.2.3 Property Tax Files

EA reviewed the Sacramento County Assessor Parcel Viewer on the Sacramento County website for property information pertinent to the subject site. The subject site is located on Map 067-78, Section 9, Lot 11 at APN 0670-780-0110-000. The 5.67-acre subject site is located within Township 8 North, Range 7 East (Sacramento County 2021). A copy of the Assessor Map is provided in Appendix C.

4.2.4 Recorded Land Title Records

A Grant Deed for APN 018-530-038-000 was provided with the EDR Environmental Lien/Activity Use Limitation Report. The title of the subject site is currently vested in Ignite

Solar Land Holdings, LLC. On 25 April 2012, the title was received from Blake A. and Debra S. Hasbrouck. A copy of the Deed Grant is provided in Appendix C.

4.2.5 Other Records

No other records were reviewed in association with this ESA.

4.3 HISTORICAL USE INFORMATION

EA reviewed historical documentation provided by EDR including historical topographic maps dating between 1891 and 2012 and historical aerial imagery dating between 1937 and 2016. Historical resources indicate that the subject site and adjacent properties were primarily agricultural or undeveloped until 1998. Local roadways adjacent to the subject site were present since 1908. A municipal facility with overhead power lines is present to the southwest, west and north of the subject site. A residential community is present to the west of the subject site.

Copies of the historical documentation provided by EDR are provided in Appendix E. Findings of EA's assessment of historical topographic map, historical aerial image, and historical city directory are summarized in Sections 4.3.1 through 4.3.4 below.

4.3.1 U.S. Geological Survey Topographic Maps

Historical USGS topographic maps dated 1891, 1892, 1893, 1908, 1916, 1941, 1944, 1954, 1967, 1975, 1980, and 2012 were reviewed as part of this assessment. Copies of the reviewed topographic maps are provided in Appendix E. The results of this review are included in Table 4-1.

Table 4-1 Historical Topographic Map Review Summary

Date	Quadrangle	Subject Property	Adjacent Properties
1891	TP, Sacramento, 30-minute	No development was observed at the subject site. The topography was generally flat.	No developments are depicted on the 1891 topographic map. A roadway was depicted running outside the southern boundary of the subject site. Several streams were depicted between 0.5 and 1 mile to the east of the subject site.
1892	TP, Sacramento, 30-minute	The subject site appears similar to the previously described map.	The adjacent properties appear similar to the previously described map.
1893	TP, Sacramento, 30-minute	The subject site appears similar to the previously described map.	The adjacent properties appear similar to the previously described map.
1908	TP, Buffalo Creek, 7.5-minute	The subject site is depicted at an elevation of 200 ft.	The topography interval is different than the previous map. The road outside the southern boundary of the subject site is no longer present. Present-day Douglas Road is depicted running east to west outside the northern boundary of the subject site. Another road was depicted running north south and east to west, outside the northern boundary of the subject site and a stream is depicted running south

Date	Quadrangle	Subject Property	Adjacent Properties
			west to north east outside the southeast boundary of the subject site.
1916	TP, Buffalo Creek, 7.5-minute	The subject site appears similar to the previously described map.	Development is observed near the present day IRCTS property.
1941	TP, Folsom, 15-minute	The subject site appears similar to the previously described map.	The topography interval is different than the previous map. Additional roads appear throughout the map.
1944	TP, Folsom, 15-minute	The subject site appears similar to the previously described map.	The adjacent properties appear similar to the previously described map.
1954	TP, Buffalo Creek, 7.5-minute	The subject site appeared similar to the previously described map.	The topography interval is different than the previous map. A reservoir appears to the west of the subject site. Grant Road is labelled on the map.
1967	TP, Buffalo Creek, 7.5-minute	The subject site does not contain a road in the 1967 map.	No topographic lines are depicted on the 1967 map; only buildings, roads, and waterways are shown. Douglas Road is labelled on the map. Additional roads are depicted. Development was observed at the present day IRCTS facility to the north of the subject site. Additional buildings appear in the northern half of the 1967 map.
1975	TP, Buffalo Creek, 7.5-minute	The subject site appears similar to the previously described map.	The adjacent properties appear similar to the previously described map.
1980	TP, Buffalo Creek, 7.5-minute	The subject site appears similar to the previously described map.	The adjacent properties appear similar to the previously described map.
2012	TP, Buffalo Creek, 7.5-minute,	No buildings are depicted on the 2012 topographic map; only roads, waterways, and elevation are shown. The subject site appeared similar to the previously described map.	No buildings are depicted on the 2012 topographic map; only roads, waterways, and elevations are shown. There is an increased number of paved roads southwest, west, northwest, and north of the subject site.

4.3.2 Aerial Photographs

Aerial photographs dated 1937, 1952, 1957, 1964, 1966, 1972, 1984, 1993, 1998, 2006, 2009, 2012 and 2016 were reviewed as part of this assessment. Copies of the aerial photographs are provided in Appendix E. Observations made from the reviewed aerial photographs are provided in Table 4-2.

Table 4-2 Aerial Photograph Review Summary

Date	Subject Site	Adjacent Properties
1937	Most of the subject site is in use for agricultural purposes. An unpaved road intersects the property.	The property to the west of the subject site appears irrigated for agricultural use. The property located northeast of the subject site appears to contain rural residential buildings. An unpaved road appears in the location of present-day Douglas Road. The road has a southward bend toward the subject site and an eastward bend from the subject site. An existing meandering stream appears southeast of the subject site.
1952	The subject site appears similar to the previously described photo.	The property located southeast of the subject site appears undeveloped and vacant. All other adjacent properties appear irrigated for agricultural purposed.
1957	An unpaved road appears in the center of the subject site with direction west to east. The subject site does not appear irrigated.	The land west of the subject site appears irrigated for agricultural use. A pond is present to the west of the subject site. A natural stream appears to flow south and southeast of the subject site. The properties east of the subject site appear undeveloped and vacant. A facility is directly north of the subject site, across present-day Douglas Road.
1964	The subject site appears similar to the previously described photo.	The surrounding properties appear undeveloped and vacant. The property to the south appears irrigated for agricultural use. The facility directly north of the subject site appears larger with additional buildings and parking lots.
1966	The subject site appears similar to the previously described photo.	The adjacent properties to the east and south appear irrigated for agricultural use. The properties to the west appear undeveloped. Douglas Road appears paved. A pond appears to the northeast of the subject site and adjacent to the northern facility.
1972	The subject site appears similar to the previously described photo.	The adjacent properties appear similar to the previously described photo.
1984	The subject site appears similar to the previously described photo.	An additional paved roads appear northeast of the subject site, across Douglas Road.
1993	The subject site appears similar to the previously described photo.	The adjacent properties appear similar to the previously described photo.
1998	The subject site appears similar to the previously described photo.	The adjacent properties appear similar to the previously described photo.
2006	The subject site appears to be in use to place excess material from the adjacent developing community.	The property northwest of the subject site is developed with paved roads and culs-de-sac. Multiple residential buildings appear in the developed area.
2009	The subject site appears vacant.	Additional residential buildings appear in the adjacent community to the northwest of the subject site. The property south of the subject site appears to be under construction.
2012	The subject site appears similar to the previously described photo.	Additional residential buildings appear in the adjacent community to the northwest of the subject site. The switchyard appears completed and in use.
2016	The subject site appears similar to the previously described photo.	Additional residential buildings appear in the adjacent community to the northwest of the subject site. A park appears north of the subject site.

4.3.3 Fire Insurance Maps

No Sanborn Fire Insurance Maps were available for review of the subject site (unmapped site). The Sanborn Fire Insurance Map Report, as presented by EDR, is provided in Appendix E.

4.3.4 Local Street Directories

The subject site and adjoining properties were not listed within the City Directory Report. A complete copy of the City Directory Report provided by EDR is provided in Appendix E.

4.3.5 Prior Environmental Reports

Prior environmental reports were not provided by the User. No other prior environmental reports were discovered during the standard environmental record source review conducted in association with this ESA.

4.3.6 Other Historical Sources

No other historical sources were reviewed in association with this ESA.

5. SITE RECONNAISSANCE

5.1 METHODOLOGY AND LIMITING CONDITIONS

The site reconnaissance was conducted on 15 June 2021, by Ms. Fatima Burhan of EA. EA was given access to all areas of the subject site. No gate or fence was around the subject site; therefore, all areas of the subject site were accessible and inspected. A photograph log documenting the conditions at the time of the site reconnaissance is provided as Appendix F.

5.2 GENERAL SITE SETTING

The subject site is located adjacent to a residential development, municipal substation, and undeveloped land in a developing area of Rancho Cordova, Sacramento County. The subject site contains tall grass and an unpaved roadway. EA accessed the properties at the subject site, from Poopenaut Court and Canyonlands Drive.

5.3 INTERIOR OBSERVATIONS

The subject site does not contain any buildings.

5.4 EXTERIOR OBSERVATIONS

The subject site was covered in knee high grass. The inability to observe the state of the soil in this area is considered a data gap. All exposed soils showed no signs for discoloration or contamination. The subject site is surrounded by agricultural land to the east. A SMUD Substation is present to the southwest of the subject site. Grassland is present to the south and east of the subject site. Sunridge Park recreation area is located outside the northern boundary of the subject site. Municipal powerlines and Sunridge Park residential development are located outside the west boundary of the subject site. The subject site had a chain-link fence along the eastern boundary and a barbed wire fence along the northeast section.

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6. INTERVIEWS

6.1 PRESENT AND PAST OWNER INTERVIEWS

Landowners were neither present during the site reconnaissance nor could they be verbally interviewed. Information was gathered via the User Questionnaire distributed to a representative of the future user/property lessee. Information contained in the questionnaire is summarized in Chapter 3. Copies of the completed questionnaires and User provided reports are provided in Appendix B.

6.2 PRESENT AND PAST SITE MANAGER INTERVIEW(S)

Information regarding present and past site manager interviews is included in Chapter 3 and Section 6.1.

6.3 PRESENT AND PAST OCCUPANT INTERVIEW(S)

Information regarding present and past site manager interviews is included in Chapter 3 and Section 6.1.

6.4 LOCAL GOVERNMENT OFFICIAL INTERVIEW(S)

No additional interviews were conducted.

6.5 INTERVIEWS WITH OTHERS

No additional interviews were conducted.

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7. FINDINGS

7.1 *DE MINIMIS* FINDINGS

No *de minimis* findings within the subject site parcels were identified during this Phase I ESA.

7.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

- The former General Electric (GE) Company facility occupied two buildings within an industrial park named Security Park (formerly known as the Administration area and part of the 4,000-acre site called IRCTS listed above) to the north of the subject site. A Resource Conservation and Recovery Act Facility Assessment (RFA) was completed in July 1998 identifying constituents of concern including VOCs such as acetone, trichloroethylene, methanol and 1,1,1-trichloroethane. An additional investigation was recommended. The National Priority List Unit of Department of Toxic Substances Control's Brownfields and Environmental Restoration Program provided analysis of the RFA report indicating that no additional investigation was required. This was based on an analysis of soil in the unsaturated zone. Correction action was terminated at the former GE Medical Systems facility. In addition, no volatile organic compounds were detected in sections of the Administrative Area used for storage and disposal by the former GE Medical Systems operations. Therefore, a No Further Action letter was issued to the facility on 30 July 2009. This listing is considered a historical REC.

- Azteca Construction Inc. at 3871 Security Park Drive located upgradient and approximately 0.49 miles of the subject site was listed in the LUST database. The site was listed for soil contamination with diesel. The case was closed on 24 February 1997. Due to the distance and date of this listing, it is not considered to impact the environmental integrity of the subject site, however, this finding is considered a historical REC.

No other historical RECs were identified during this Phase I ESA.

7.3 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS

- The IRCTS Administration Area at Douglas Road, located upgradient and approximately 1,909 ft north of the subject site, is listed in the CPS–SLIC and CERS databases. The 4,000-acre property is an inactive rocket testing facility currently owned and operated previously by Aerojet-General Corporation. Groundwater remediation is ongoing since 2004. The property is planned for the Rio Del Oro development consisting of housing, commercial, and office facilities. The site currently has a cleanup status of Open – Remediation since 23 April 2012. The surface soils have been remediated to cleanup levels specified by DTSC. Soil vapor extraction is complete, and the system has been shut down. A groundwater extraction system has been implemented and is controlling the downgradient migrations of the plume. The groundwater remediation is currently covered IRCTS Southern

Groundwater. The Annual Groundwater Monitoring Report dated 4 May 2021, by Montgomery & Associates, indicated that the groundwater from the property generally flows to the west and southwest based on 20 years of data. The report indicated that the extraction wells continue to operate and are effective and controlling the migration of the TCE and perchlorate impacted groundwater (Montgomery & Associates 2021). Due to the proximity and upgradient location of this property from the subject site, this listing would be considered a REC. However, as the impacts have been investigated, remediated and the residual impacts are currently being controlled under regulatory oversite, this site is classified as a controlled REC.

No other RECs were identified during this Phase I ESA.

7.4 RECOGNIZED ENVIRONMENTAL CONDITIONS

No RECs were identified during this Phase I ESA.

7.5 DATA GAPS

A data gap is defined by ASTM E-1527-13 as a lack of or inability to obtain information required by this practice despite good faith efforts by the Environmental Professional to gather such information. Data gaps may result from the incompleteness in any of the activities required by this practice including, but not limited to, the site reconnaissance, interviews, and historical research. Failure to achieve the historical research objectives identified in the standard is termed a *data failure* and is a type of *data gap*.

The subject site was covered in knee high grass at several locations. The inability to observe the state of the soil in this area is considered a data gap.

8. OPINION

One controlled REC was identified in connection with the subject site:

- IRCTS – Administration Area, Douglas Road, located upgradient approximately 1,909 ft north of the subject site, is listed in the CPS-SLIC and CERS databases. The 4,000-acre property is an inactive rocket testing facility currently owned and operated previously by Aerojet-General Corporation. Groundwater remediation is ongoing since 2004. The property is planned for the Rio Del Oro development consisting of housing, commercial, and office facilities. The site currently has a cleanup status of Open – Remediation since 23 April 2012. The surface soils have been remediated to cleanup levels specified by DTSC. Soil vapor extraction is complete, and the system has been shut down. A groundwater extraction system has been implemented and is controlling the downgradient migrations of the plume. The groundwater remediation is currently covered IRCTS Southern Groundwater. The Annual Groundwater Monitoring report on 4 May 2021 by Montgomery & Associates, indicated that the groundwater from the property generally flows to the west and southwest based on 20 years of data. The report indicated that the extraction wells continue to operate and are effective and controlling the migration of the TCE and perchlorate-impacted groundwater (Montgomery & Associates 2021). Due to the proximity and upgradient location of this property from the subject site, this listing would be considered a REC. However, as the impacts have been investigated, remediated and the residual impacts are currently being controlled under regulatory oversite, this site is classified as a controlled REC.

  No additional investigation is deemed necessary at this time due to ongoing remediation at the upgradient property and due to the proposed use of the subject site that does not involve groundwater use.

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9. CONCLUSIONS

This ESA has revealed one REC, two historical RECs and no *de minimis* conditions in connection with the subject site.

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10. DEVIATIONS

No deviations from the standard ASTM practice were completed as part of this ESA.

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11. ADDITIONAL SERVICES

No additional services other than those standard to ASTM practice were provided as part of this Phase I ESA.

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12. REFERENCES

The following sources of information were consulted as a part of this ESA:

ASTM International. 2013. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-13).

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Montgomery & Associates. 2021. Groundwater Monitoring Report for 2020 Inactive Rancho Cordova Test Site. 4 May.

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Sacramento County. 2021. Assessor Parcel Viewer https://assessorparcelviewer.saccounty.net/jsviewer/assessor.html. 23 June.

U.S. Department of Agriculture. 2021. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/. Accessed 25 May.

U.S. Geological Survey (USGS). 2012. Ducor. 7.5-minute Quadrangle Topographic Map.

Vail, B. 2021. Major Tenant/Property Owner/User Questionnaire: Phase I Environmental Site Assessment. 28 June.

Wagner and Saucedo. 1987. Geologic Map of the Weed Quadrangle, California [map]. 1:250,000. State of California: Division of Mines and Geology.

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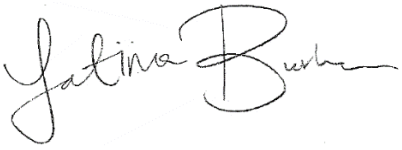
13. SIGNATURES OF THE ENVIRONMENTAL PROFESSIONALS

"We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in Section 312.10 of 40 Code of Federal Regulation 312." "We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 Code of Federal Regulation Part 312."



7/6/2021

Fatima Burhan Date
Environmental Professional

7/6/2021

Frank B. Postma, LSP, LEP, PG Date
Senior Project Manager

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14. QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONALS

Resumes for the following personnel assigned to this project are provided in Appendix G:

- Frank Postma, Senior Project Manager
- Fatima Burhan, Environmental Scientist.

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Appendix A

Figures

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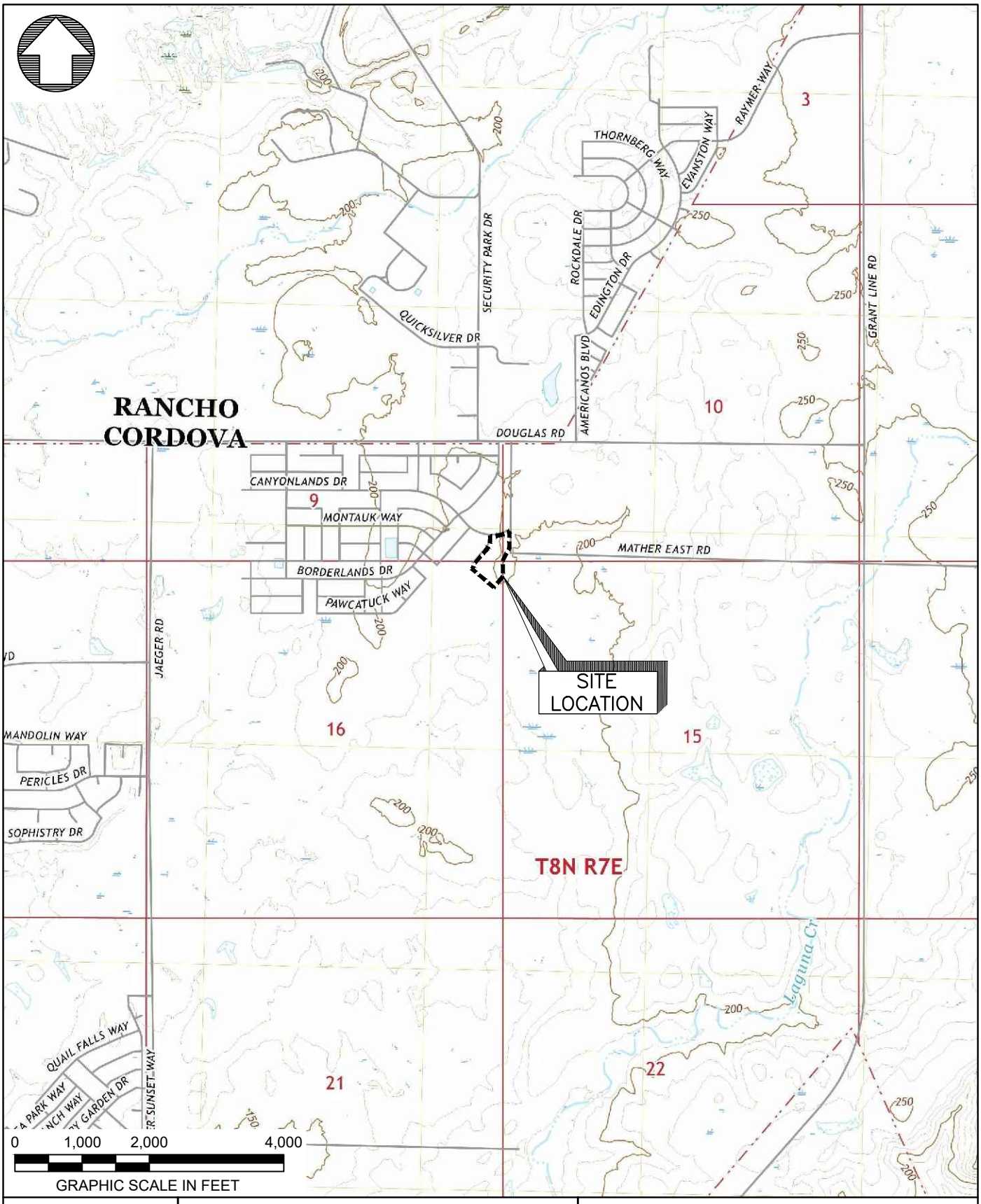

EA Engineering, Science, and Technology, Inc., PBC

VESPER ENERGY DEVELOPMENT LLC.
SUNRIDGE SOLAR PROJECT
POOPENAUT COURT
RANCHO CORDOVA, CALIFORNIA

SITE LOCATION MAP

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MGR.:	DATE:	PROJECT NUMBER:	SHEET NUMBER:	FIGURE:
FB	DPA	DP	FBP	JULY 2021	6361203	1 OF 1	2-1

PHASE I ESA

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EA Engineering, Science, and Technology, Inc., PBC

VESPER ENERGY DEVELOPMENT LLC.
SUNRIDGE SOLAR PROJECT
POOPENAUT COURT
RANCHO CORDOVA, CALIFORNIA

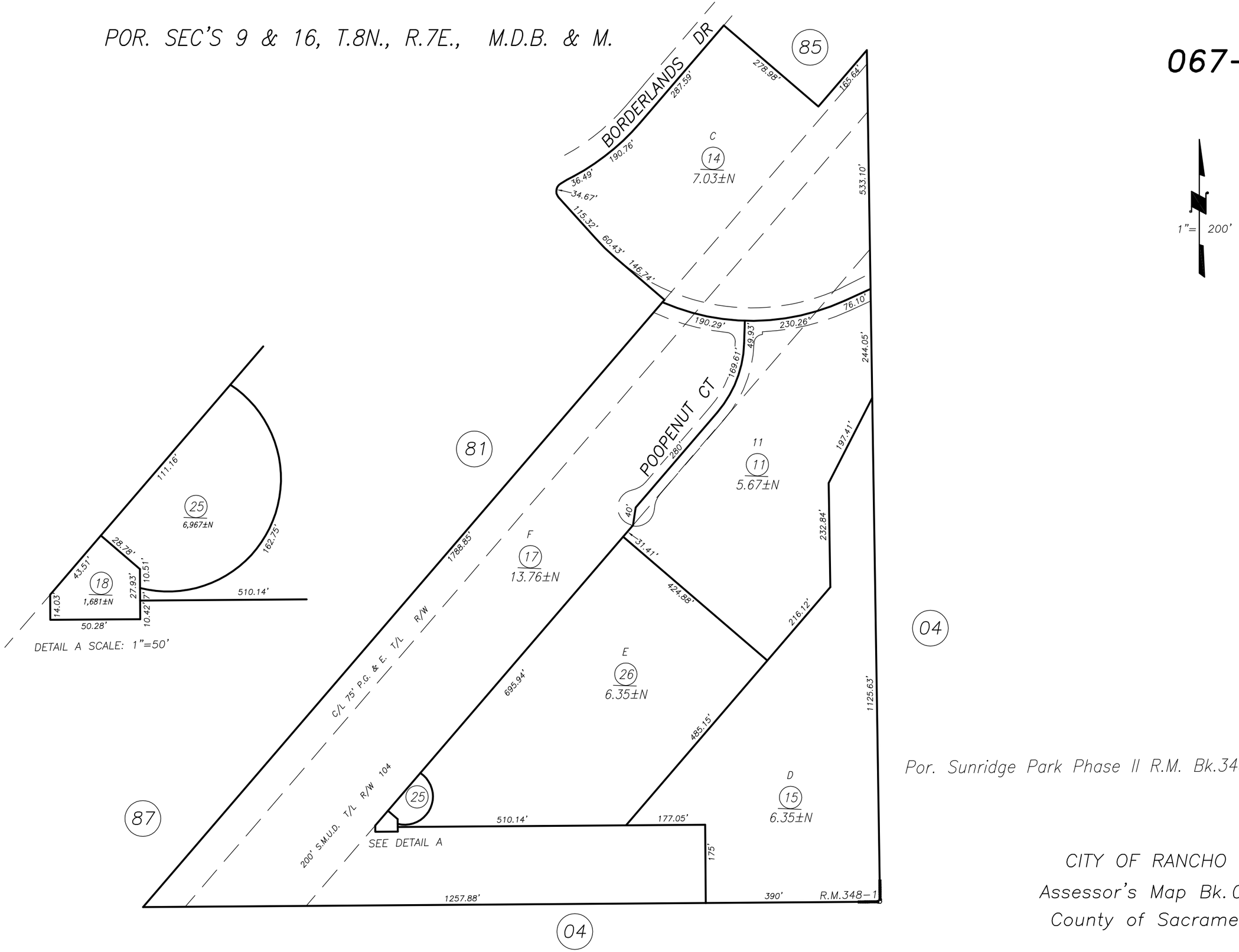
SITE PLAN

PROJECT NUMBER:	DESIGNED BY:	DRAWN BY:	FIGURE:
6361203	FB	DPA	2-2
DATE:	CHECKED BY:	PROJECT MGR.:	SHEET NUMBER:
JULY 2021	DP	FBP	1 OF 1

PHASE I ESA

POR. SEC'S 9 & 16, T.8N., R.7E., M.D.B. & M.

067-78



1"= 200'

Por. Sunridge Park Phase II R.M. Bk.348 Pg.1 (3-7-2006)

CITY OF RANCHO CORDOVA

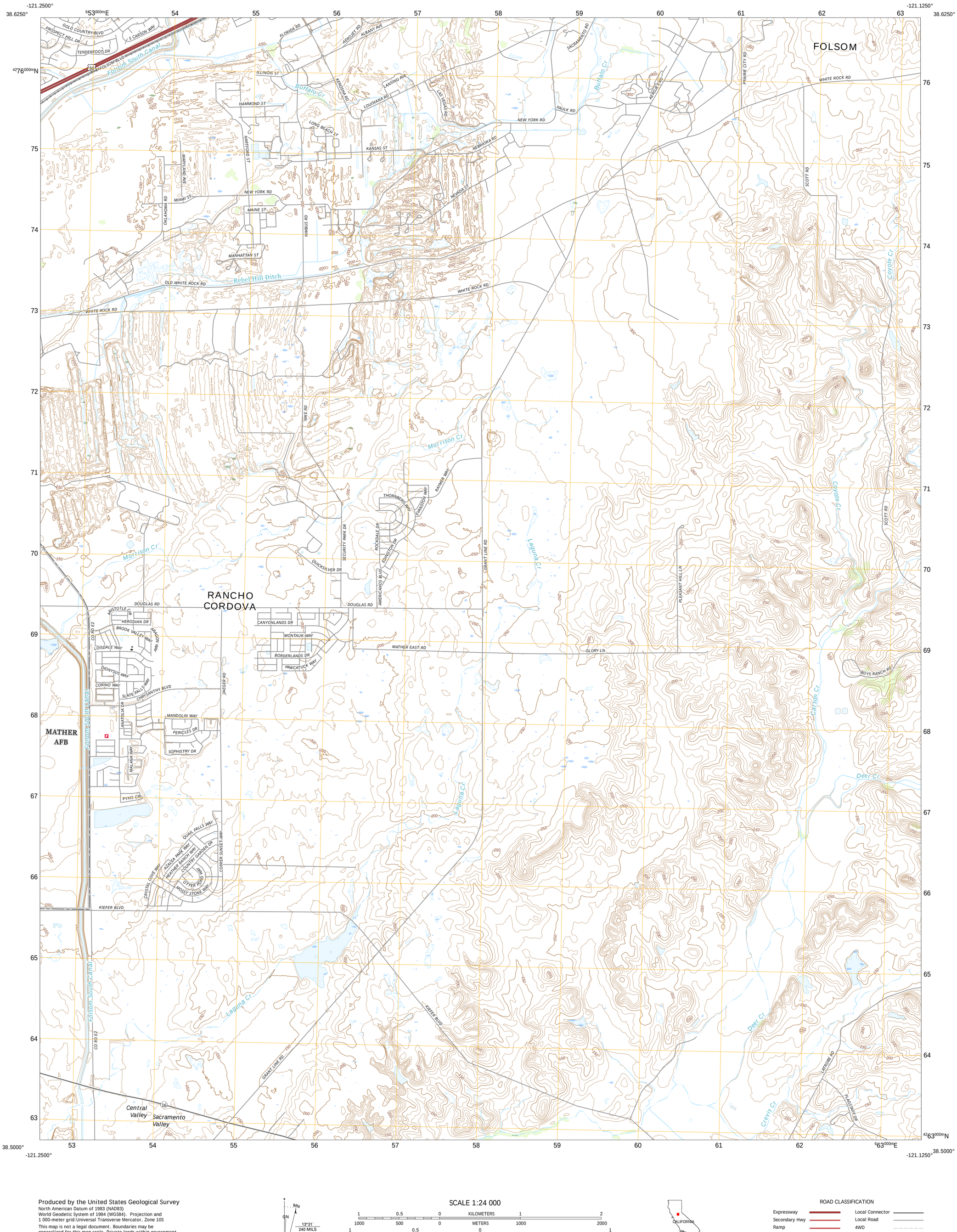
Assessor's Map Bk. 067 Pg. 078

County of Sacramento, Calif.

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

BUFFALO CREEK QUADRANGLE
CALIFORNIA - SACRAMENTO COUNTY
7.5-MINUTE SERIES



38.6250° -121.2500° 6 53 000m E
38.6250° -121.1250°
38.5000° -121.2500°
38.5000° -121.1250° 42 63 000m N

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 10S

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, June 2016 - October 2016
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, Not Available
Hydrography.....National Hydrography Dataset, 2003 - 2018
Contours.....National Elevation Dataset, 2000 - 2013
Boundaries.....Multiple sources; see metadata file 2016 - 2017
Public Land Survey System.....BLM, 2018
Wetlands.....FWS National Wetlands Inventory 1984 - 1987

MN
GN
13°31'
240 MILS
1°8'
20 MILS
UTM GRID AND 2017 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
FH
Grid Zone Designation
10S

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Citrus Heights
2 Folsom
3 Clarksville
4 Carmichael
5 Folsom SE
6 Elk Grove
7 Sloughhouse
8 Carbondale

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

BUFFALO CREEK, CA
2018

NSN 7643016355765
NGA REF NO. USGSX24K6032

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Appendix B

User Provided

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301 Metro Center Blvd, Suite 102
Warwick, RI 02886
Telephone: 410-736-3440
Fax: 410-771-1625
www.eaest.com

MAJOR TENANT / PROPERTY OWNER/USER QUESTIONNAIRE: PHASE I ENVIRONMENTAL SITE ASSESSMENT

EA has been retained to conduct a Phase I Environmental Site Assessment (ESA) of the following property. The Phase I ESA will involve site observations, interviews, and a review of available documentation. To ensure the success of the assessment and to meet the requirements of EPA All Appropriate Inquiry, and in accordance with the Scope of Work for this assessment, we request that you complete this questionnaire. Please return via email or during the facility site inspection.

Date: 6/29/2021

Name of person completing questionnaire: Austin Porter **Company:** Vesper Energy

Length of association with property: ~6 months **Phone Number:** 214-450-0774

Property Name/Address(es): Poopenaut Ct. Rancho Cordova, CA 95742

Please check appropriate box(es): **Property Owner** ☐ **User** ✓ **Tenant** ☐

Directions: Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response ("Y" = Yes; "N"= No; "U/NR" = Unknown). Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column.

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/NR	
1	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances of petroleum products in, on or from the property?		N		
2	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		N		
3	Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		N		
4	Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?		N		
5	Did a search of recorded land title records (or judicial records, where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?		N		
6	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 so that you would have specialized knowledge of the chemicals and processes used by this type of business.		N		
7	Does the purchase price being paid for this property reasonably reflect fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Y			

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MAJOR TENANT / PROPERTY OWNER/USER QUESTIONNAIRE: PHASE I ENVIRONMENTAL SITE ASSESSMENT

QUESTION			RESPONSE			COMMENTS
			Y	N	U/NR	
8	Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional identify conditions indicative of releases or threatened releases? For example,			N		
	8A	Do you know the past uses of the property?		N		
	8B	Do you know of specific chemicals that are present or once were present at the property?		N		
	8C	Do you know of spills or other chemical releases that have taken place at the property?		N		
	8D	Do you know of any environmental cleanups that have taken place at the property?		N		
9	Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?			N		

In addition to the above, are you aware of any of the following documents? If so, please provide copies:

1 - Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.); **No**

2 - Environmental compliance audit reports; **No**

3 - Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits); **No**

4 - Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs); **No**

5 - Material safety data sheets; **No**

6 - Community right-to-know plan; **No**

7 - Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc; **No**

8 - Reports regarding hydrogeological conditions on the property and surrounding area; **No**

9 - Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property; **No**

10 - Hazardous waste generator notices or reports; **No**

11 - Geotechnical studies; **No**

12 - Risk assessments; and **No**

13 - Recorded Activity and Use Limitations (AULs). **No**

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MAJOR TENANT / PROPERTY OWNER/USER QUESTIONNAIRE: PHASE I ENVIRONMENTAL SITE ASSESSMENT

EA has been retained to conduct a Phase I Environmental Site Assessment (ESA) of the following property. The Phase I ESA will involve site observations, interviews, and a review of available documentation. To ensure the success of the assessment and to meet the requirements of EPA All Appropriate Inquiry, and in accordance with the Scope of Work for this assessment, we request that you complete this questionnaire. Please return via email or during the facility site inspection.

Date: 6/28/2021

Name of person completing questionnaire: Brian Vail **Company:** River West Investments

Length of association with property: 18 years **Phone Number:**

Property Name/Address(es): Canyonlands Drive

Please check appropriate box(es): **Property Owner x** **User ☐** **Tenant ☐**

Directions: Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response ("Y" = Yes; "N"= No; "U/NR" = Unknown). Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column.

	QUESTION	RESPONSE			COMMENTS
		Y	N	U/NR	
1	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances of petroleum products in, on or from the property?		x		
2	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		x		
3	Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		x		
4	Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?		x		
5	Did a search of recorded land title records (or judicial records, where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?		x		
6	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 so that you would have specialized knowledge of the chemicals and processes used by this type of business.	x			Boeing and Aerojet are involved in a superfund cleanup in the area
7	Does the purchase price being paid for this property reasonably reflect fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	x			

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MAJOR TENANT / PROPERTY OWNER/USER QUESTIONNAIRE: PHASE I ENVIRONMENTAL SITE ASSESSMENT

QUESTION			RESPONSE			COMMENTS
			Y	N	U/NR	
8	Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional identify conditions indicative of releases or threatened releases? For example,					
	8A	Do you know the past uses of the property?	x			Fallow
	8B	Do you know of specific chemicals that are present or once were present at the property?		x		
	8C	Do you know of spills or other chemical releases that have taken place at the property?		x		
	8D	Do you know of any environmental cleanups that have taken place at the property?		x		
9	Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?			x		

In addition to the above, are you aware of any of the following documents? If so, please provide copies:

1 - Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.); Did a Phase 1 in 2004, don't have a copy.

2 - Environmental compliance audit reports;

3 - Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits);

4 - Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs);

5 - Material safety data sheets;

6 - Community right-to-know plan;

7 - Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc;

8 - Reports regarding hydrogeological conditions on the property and surrounding area;

9 - Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property;

10 - Hazardous waste generator notices or reports;

11 - Geotechnical studies;

12 - Risk assessments; and

13 - Recorded Activity and Use Limitations (AULs).

SETTLEMENT AGREEMENT AND RELEASE

PARTIES

This Settlement Agreement and Release ("Agreement") is entered into between all of the following parties:

- The "Plaintiffs" are Sun Ridge, LLC; Anatolia, LLC; Sunridge Anatolia, LLC; AKT Investments, Inc.; Sunridge Park, LLC; Sunridge Investors, LLC; Cresleigh Home Corporation; Douglas Road 105, L.P.; Lennar Homes of California; Douglas Road 103, L.P.; BD Properties; Louie and Voula Pappas; Jaeger Corner Enterprises; Jaeger 25; Steven J. Slagle; Stephanie St. Amour; Ronald R. Ringen; Sara June Ringen; and Nancy White;

- The "Defendants" are Aerojet General Corporation and Cordova Chemical Company (collectively "Aerojet") and The Boeing Company and McDonnell Douglas Corporation (collectively "Boeing"); and

- The "County" is the County of Sacramento and Sacramento County Water Agency.

The Plaintiffs, Defendants and the County are sometimes collectively referred to in this Agreement as "Parties" and, as appropriate, a "Party." Defined terms are set forth in Article 1 of this Agreement below, and all defined capitalized terms used in this Agreement are used as defined in Article 1.

RECITALS

A. The Plaintiffs are the developers of the SunRidge Specific Plan, an approximately 2632 acre mixed use real estate development located in Rancho Cordova, California, that is located entirely within the Sunrise-Douglas Community Plan, an approximately 6042 acre multi-phased, mixed use development project.

B. On September 14, 2012, the Plaintiffs filed a Complaint in Sacramento County Superior Court as Action No. 34-2012-00131946 (the "Complaint"). The Complaint asserts five causes of action against the Defendants. The Plaintiffs dismissed the Complaint, without prejudice, on January 22, 2013 to allow discussion of settlement in conjunction with execution of a further Tolling Agreement.

C. Defendants are companies which have operated in the Eastern Portion of Sacramento County (defined below). In the Complaint, Plaintiffs allege that the Defendants' activities have resulted in COCs (defined below) in groundwater in the Eastern Portion of Sacramento County.

D. Plaintiffs' Complaint alleges that, as a result of COCs in groundwater in the Eastern Portion of Sacramento County, the costs of their development activities in the

Eastern Portion of Sacramento County have been, and will be, increased. The allegations in the Complaint focus upon, but are not limited to, claims of loss of value of Plaintiffs' property and costs associated with litigation regarding their development activities under the California Environmental Quality Act.

E. The Defendants and the County entered into the County Settlement Agreement (defined below) in August 2011 to address the issue of COCs in groundwater in the Eastern Portion of Sacramento County.

F. To avoid the expense and uncertainty of further litigation and any subsequent appeals, the Parties now desire to settle all causes of action, claims for damages and requests for relief that were, or could have been, alleged or sought in the Complaint, and certain~~any~~ potential future claims related to the presence of COCs in groundwater in the Eastern Portion of Sacramento County.

G. The Parties represent and understand that they are waiving significant legal rights by signing this Agreement and enter into this Agreement voluntarily and with a full understanding of its terms.

H. The Parties acknowledge that, by entering into this Agreement, each Party in no way admits responsibility for debts, liabilities, and/or obligations owed to the other Parties, or to Third Parties, or the validity of any of the allegations made in the Complaint, and that this Agreement is made in a spirit of compromise for the sole purpose of avoiding the risk and expense of further litigation.

AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants contained herein, the Parties agree as follows:

ARTICLE 1---DEFINITIONS

"Aerojet" means Aerojet-General Corporation, an Ohio corporation, and its former subsidiary Cordova Chemical Company.

"Affiliate(s)" means, with respect to any Party, any Person (as defined below) directly or indirectly controlling, controlled by, or under common control with such Person, including, but not limited to, present and former parent entities, subsidiaries, partners, predecessors and successors of corporations. As used herein, the term "control" (including the terms "controlling", "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through ownership of voting securities or other interests, by contract or otherwise.

"Anatolia Treatment Plant" means the water treatment plant designed and constructed to treat raw groundwater from the North Vineyard Well Field to meet the needs of the Sunrise-Douglas Community Plan.

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"**Boeing**" means The Boeing Company, a Delaware corporation, and McDonnell Douglas Corporation, a former Maryland Corporation that was a subsidiary of The Boeing Company. McDonnell Douglas Corporation merged into The Boeing Company on December 31, 2009, and no longer exists as a separate corporation.

"COCs" means any and all chemicals, constituents, contaminants, materials, pollutants, waste or hazardous substance or material which have given rise to or in the future give rise to an obligation of Aerojet and/or Boeing to remediate groundwater in the Eastern Portion of Sacramento County.

"Complaint" means the complaint filed by the Plaintiffs in Sacramento County Superior Court on September 14, 2012 captioned *Sun Ridge, LLC et- al. v. Aerojet-General Corporation, et al.* Case Number 34-2012-00131946;

"County" means the County of Sacramento and the Sacramento County Water Agency.

"**County Settlement Agreement"** means the agreement entered into by the County and Defendants in August 2011, which is attached to this Agreement as Exhibit "__"-.

"Defendants" means Aerojet and Boeing collectively.

"Eastern Portion of Sacramento County" means that portion of Sacramento County shown and outlined on Exhibit "__" attached to this Agreement.

"Environmental Requirements" means all current and future obligations to remediate groundwater imposed on Aerojet and/or Boeing by any government regulatory agency exercising jurisdiction over the groundwater at or emanating from or that has emanated from the Eastern Portion of Sacramento County and the remedial actions of Aerojet and/or Boeing relating thereto, including but not limited to the following and any modifications thereto: (a) the Partial Consent Decree; (b) the EPA Unilateral Administrative Order 2002-13 (dated August 2002); (c) the DTSC Imminent and/or Substantial Determination and Consent Order (dated June 30, 1994); (d) the Regional Water Quality Control Board Cleanup & Abatement Orders 97-093 (dated June 1997), R5-2002-0723 (dated September 2002), and 96-150 (dated May 1996); and (e) any other enforceable order, judgment, permit or authorization imposed on Aerojet and/or Boeing by a government entity and that is applicable to groundwater in the Eastern Portion of Sacramento County.

"Effective Date" means the date on which the last required signature of the Parties is placed on this Agreement.

"Excelsior Pipeline" means that raw water pipeline connecting the North Vineyard Well Field to the Anatolia Water Treatment Plant.

"**Immediate Successors"** means any Person who (a) as of the Effective Date of this Agreement has purchased from an individual Indemnitor real property, whether or not improved, located within the SunRidge Specific Plan or (b) subsequent to the Effective

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Date of this Agreement purchases real property located within the SunRidge Specific Plan, which real property was owned by such Indemnitor as of the Effective Date hereof.

"**Indemnitors**" means each of Plaintiffs AKT Investments, Inc. Sun Ridge, LLC, Anatolia LLC, Sunridge-Anatolia, LLC Sunridge Park , LLC, Sunridge Investors, LLC, Lennar Homes of California and BD Properties and their Affiliates

"North Vineyard Well Field" means the well field located in the North Vineyard area in the general vicinity of Florin and Excelsior Roads to provide raw groundwater to the Anatolia Treatment Plant.

"Optimization Fees" means the fees imposed on the SunRidge Development by the County in Ordinance No. SZC-2002-0015, paragraph 24.

"Parties" means the Plaintiffs, Boeing, Aerojet, and the County collectively.

"Party" means each of Plaintiffs, Aerojet, Boeing, or the County as applicable.

"Person" means any natural person, corporation, general partnership, limited partnership, limited liability company, limited liability partnership, proprietorship, trust, association, court, tribunal, agency, government, department, commission, self-regulatory organization, arbitrator, board, bureau, instrumentality, or other entity, enterprise, authority or business organization.

"Personal Injuries" means any injury sustained by a natural person.

"Plaintiffs" means Sun Ridge, LLC; Anatolia, LLC; Sunridge Anatolia, LLC; AKT Investments, Inc.; Sunridge Park, LLC; Sunridge Investors, LLC; Cresleigh Home Corporation; Douglas Road 105, L.P.; Lennar Homes of California; Douglas Road 103, L.P.; BD Properties; Louie and Voula Pappas; Jaeger Corner Enterprises; Jaeger 25; Steven J. Slagle; Stephanie St. Amour; Ronald R. Ringen; Sara June Ringen; and Nancy White.

"Property Damage" means any physical damage caused to personal property or to~~incurred on~~ any parcel of land, excluding Plaintiffs' value loss claim.

"Settlement Payments" shall mean all of the payments described in Article 2.1 below.

"Sunrise-Douglas Community Plan" means the approximately 6042 acre multi-phased, mixed use development project in the Eastern Portion of Sacramento County south of Douglas Road. The Sunrise-Douglas Community Plan was approved by the County in the July 17, 2002 Notice of Determination approving the Sunrise Douglas Community Plan/SunRidge Specific Plan.

"SunRidge Development" means the approximately 2632 acre mixed use real estate development approved by the County as the SunRidge Development Specific Plan in the July 17, 2002 Notice of Determination approving the Sunrise Douglas Community

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Plan/SunRidge Specific Plan and Ordinance No. SZC-2002-0015, amending the County Zoning Code to establish SunRidge Specific Plan.

"Third Party(ies)" means any Person(s) not an Affiliate of the Parties to this Agreement.

"SWCA Zones 40 and 41" means Zones created by the Sacramento County Water Agency ("SCWA") for specific purposes authorized under the SCWA Agency Act. Zone 40 was created by the SCWA Board of Directors on May 14, 1985, pursuant to Resolution No. 663 to fund the planning, design, and construction of major water supply facilities. Zone 41 was created by the SCWA Board of Directors on June 13, 2000, pursuant to Resolution WA-2397, and funds the operation and maintenance of a public drinking water system that includes water production, treatment, storage and distribution facilities, pursuant to permits issued by the California Department of Public Health.

"Well Insurance Fees" means the fees imposed on the SunRidge Development by the County in Ordinance No. SZC-2002-0015, paragraph 23.

ARTICLE 2---SETTLEMENT PAYMENTS

Section 2.1 The Plaintiffs shall be paid the following amounts:

a. The County shall pay the Plaintiffs five million dollars ($5,000,000) within 60 days after the Effective Date by wire transfer to the Porter Scott Client Trust Account (Tax ID Number [insert]:

b. The Defendants shall jointly pay the Plaintiffs one million dollars ($1,000,000) within 60 days after the Effective Date by wire transfer to the Porter Scott Client Trust Account (Tax ID Number [insert]:;

~~c. The County shall pay to the Plaintiffs any Optimization Fees and Well Insurance Fees collected by the County for additional lots built out in the SunRidge Development after the Effective Date.~~

Section 2.2 The Settlement Payments in Sections 2.1(a) ~~and 2.1(c)~~ above is~~are~~ the ~~several~~ obligation of the County. The Settlement Payment in Section 2.1(b) above is the joint and several obligation of Defendants. The County has no obligation with regard to the Settlement Payment to Plaintiffs in Section 2.1(b) above, and the Defendants have no obligation with regard to the Settlement Payments to Plaintiffs in Sections 2.1(a) ~~and 2.1(c)~~ above.

Section 2.3 The Settlement Payments shall be delivered to the Plaintiffs by wire transfer to the Porter Scott Client Trust Account (94-2515991). Wire transfer instructions are as follows:

U.S. NATIONAL BANK
WIRING INSTRUCTIONS

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621 Capitol Mall Ste 800
Sacramento Ca 95814

ABA# 121122676
Swift Address # USBKUS44IMT

ACCOUNT # 153400008162

BENEFICIARY: PORTER SCOTT A PROFESSIONAL CORP IOLTA

If you have any questions, please contact:

Pam Long
Phone (916) 498-3414
Fax (916) 498-3811

The Settlement Payments shall be deemed complete upon receipt of funds in the Porter Scott Client Trust Account.

Section 2.4 Allocation of Settlement Payments among the Plaintiffs is to be determined by the Plaintiffs. Defendants and the County will not participate in any way in the allocation of the Settlement Payments among the various Plaintiffs. Any failure of any Plaintiff to receive funds from the Porter Scott Client Trust Account or any dispute as between or among any of the Plaintiffs as to the allocation of such Settlement Payments shall in no way impair the effectiveness of this Agreement or give rise to any claim of failure of consideration for the releases and dismissal in Article 3 of this Agreement below.

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ARTICLE 3---RELEASES AND DISMISSAL

Section 3.1 **Plaintiffs' Releases to Defendants**: Upon the payment of the amounts described in Section 2.1(a) and Section 2.1(b) above, and subject to the exclusions set forth in Section 3.3 below, Plaintiffs and their Affiliates covenant not to sue or seek any administrative, or other, action against Aerojet and/or Boeing, or their respective Affiliates, and release Aerojet and Boeing and their respective Affiliates and each of the released entities' respective past and present officers, directors, present or former shareholders, employees, consultants, contractors, attorneys, agents or assigns, known or unknown, for any claims in any way related to the Complaint or to COCs in groundwater within the Eastern Portion of Sacramento County. Without limitation, such release includes, but is not limited to:

a. any claim that was made or could have been made by Plaintiffs, in their capacity as landowners, in the Complaint, including, but not limited to, any claim of attorneys' fees or experts' fees associated with the Complaint or the SunRidge Development or the Sunrise-Douglas Community Plan;

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b. any costs incurred by Plaintiffs associated with any alleged losses or damages of any kind incurred in or arising out of the SunRidge Development;

c. any costs incurred by Plaintiffs associated with any alleged losses or damages of any kind incurred in or arising out of the Sunrise-Douglas Community Plan;

d. any claim of loss, damage, or increased costs (i) associated with infrastructure to supply water to the SunRidge Development or the Sunrise-Douglas Community Plan, including wells now in place, or (ii) associated with COCs in groundwater or extraction/ discharge of groundwater by the Defendants in accordance with Environmental Requirements; and

e. any costs incurred by Plaintiffs associated with the North Vineyard Well Field, the Anatolia Treatment Plant and/or the Excelsior Pipeline.

Section 3.2 Plaintiffs' Releases to the County: Upon the payment of the amounts described in Section 2.1(a) and Section 2.1(b) above, Plaintiffs and their Affiliates covenant not to sue or seek administrative action against the County, and its respective Affiliates and release the County and its respective Affiliates and each of the released entities', respective past and present officers, directors, consultants, contractors, attorneys, agents or assigns, known or unknown, for claims in any way related to the Complaint or to COCs in groundwater within the Eastern Portion of Sacramento County. Without limitation, such release includes, but is not limited to:

a. any claim that was made or could have been made in the Complaint by Plaintiffs, in their capacity as landowners, including, but not limited to, any claim of attorneys' fees or experts' fees associated with the Complaint or the SunRidge Development or the Sunrise-Douglas Community Plan;

b. any costs associated with any alleged losses or damages incurred in or arising out of the SunRidge Development;

c. any costs associated with any alleged losses or damages of any kind incurred in or arising out of the Sunrise-Douglas Community Plan;

d. any claim of loss, damage, or increased costs (i) associated with infrastructure to supply water to the SunRidge Development or the Sunrise-Douglas Community Plan, including wells now in place or wells put in place in the future, or (ii) associated with COCs in groundwater or extraction/ discharge of groundwater by the Defendants in accordance with Environmental Requirements;

e. any costs associated with the North Vineyard Well Field, the Anatolia Treatment Plant and/or the Excelsior Pipeline.

Section 3.3 Exclusions From Plaintiffs' Releases: Notwithstanding any provision in this Agreement, the releases from the Plaintiffs to Defendants and to the County in Sections 3.1 and 3.2 above do not include claims for Ppersonal Iinjuries or

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Pproperty Ddamage by Plaintiffs and/or their Affiliates, and/ or any such claims made against Plaintiffs and/or their Affiliates for which indemnity from Defendants and/or the County may be sought by any Third Party. ~~Moreover, the release from Plaintiffs to the County in Section 3.2 above does not include claims based on the obligation of the County to continue to collect and pay to Plaintiffs the Optimization Fees and Well Insurance Fees as described in Section 2.1(c) above and Section 5.1(a) below. The obligations of the County with regard to Section 2.1(c) above and Section 5.1(a) below will conclude when all lots in the SunRidge Development have been built out.~~

Section 3.4 **Defendants' Releases to the County:** Upon the payment of the amount described in Section 2.1(a) above, and based upon the County's covenants in Article 5 below, Defendants and the County shall execute the Amendment of the County Settlement Agreement attached hereto as Exhibit "__".

Section 3.5 **California Civil Code Section 1542:** Each of the Parties providing releases pursuant to this Agreement has read and understands the contents of California Civil Code section 1542, and hereby waives that section, which reads:

> ***"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING A RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."***

To the extent that Section 1542 or a similar law or statute of another state or jurisdiction may otherwise apply to this Agreement, the Parties, and each of them, do hereby waive and relinquish all rights and benefits that they may have under Section 1542 of the California Civil Code or under the law of any other state or jurisdiction to the same or similar effect respecting the claims.

Section 3.6 Plaintiffs filed a dismissal, without prejudice, of the Complaint on January 22, 2013. If allowed by the Court, the Plaintiffs shall file a dismissal with prejudice of the Complaint within ten (10) days of receipt of the payments provided for in Sections 2.1(a) and 2.1(b) above.

ARTICLE 4—INDEMNITY FROM CERTAIN PLAINTIFFS

Section 4.1 Indemnitors shall each, separately and individually~~will~~ defend and hold harmless Aerojet and its Affiliates, Boeing and its Affiliates, and the County and its Affiliates from and against any and all liability, claim of liability, losses and costs (including but not limited to attorneys' and experts' fees) arising from any claim by an Immediate Successor of such individual Indemnitor~~a Third Party~~ as to which Plaintiffs provide a release in Sections 3.1 and 3.2 above. No individual Indemnitor shall be liable for the obligations of other individual Indemnitors under this Article 4. The individual Indemnitor's' obligation to defend and hold harmless shall not extend to any claim

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excepted from Plaintiffs' release as provided in Section 3.3 above. Plaintiffs other than the Indemnitors have no obligation under this Article 4.

Section 4.2 Each Party acknowledges and agrees that the indemnity obligations in Section 4.1 above do not cover costs independently incurred by an indemnified party ("Indemnitee") without the prior written approval of the relevant individual ~~an~~ Indemnitor~~(s)~~ unless such costs are incurred as a consequence of such~~the~~ Indemnitor's' breach or default of obligations under this Agreement. Such approval shall not be unreasonably withheld. For purposes of the foregoing sentence, if the subject Indemnitor~~(s)~~ fails to respond to an Indemnitee's written notice of an indemnified event within thirty (30) days after the notice ~~(or such shorter time as the Indemnitee reasonably and for good cause may identify in such notice)~~, then such approval shall be deemed granted. If the subject Indemnitor~~(s)~~ refuses to indemnify the Indemnite'se~~(s)~~' request made in writing, then the Indemnitee may bring an action to enforce Section 4.1 under this Agreement.

ARTICLE 5 – COVENANTS FROM THE COUNTY

~~**Section 5.1** As indicated in Section 2.1(e) above, the County will continue to collect the Optimization Fees and Well Protection Fees for specified additional lots built out within the SunRidge Development after the Effective Date and pay those collected fees to AKT. The specified lots are attached in Exhibit "___".~~

~~**Section 5.2** The County covenants and represents that it will not assess the Optimization Fees or the Well Protection Fees on any lots which are not located specifically within the SunRidge Development.~~

Section 5.1~~3~~ The County covenants and represents that, except to the extent the specific fees described herein as Optimization Fees and Well Insurance Fees~~above in Sections 2.1(e) and 5.1~~ could otherwise be so construed, it will not impose Water Infrastructure Fees (as that term is defined in the 2011 County Settlement Agreement) after the Effective Date on the basis that such fees are necessary as a result of COCs in groundwater in the Eastern Portion of Sacramento County

ARTICLE 6---MISCELLANEOUS

Section 6.1 **Recitals**. The Recitals set forth above are true and correct and are incorporated herein.

Section 6.2 **Governing Law**. This Agreement will be interpreted and enforced pursuant to the laws of the State of California without regard to choice of law principles.

Section 6.3 **Interpretation**. This Agreement is the product of negotiation and preparation by and among each Party hereto and its respective counsel. Accordingly, this Agreement will not be deemed prepared or drafted by one Party or another, and should be construed accordingly.

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Section 6.4 **Mediation.** Any claim for an alleged breach of this Settlement Agreement will be submitted to Retired Judge William Bettinelli of the Judicial Arbitration and Mediation Service ("JAMS") for mediation, or another mediator approved by the Parties (or, if Judge Bettinelli is unable to serve and in the absence of agreement on another mediator, as selected by JAMS), before an action is filed to enforce this Agreement. The mediation will take place in San Francisco, California or in another location as mutually agreed by the Parties.

Section 6.5 **Rules of Construction**. Words used in the singular in this Agreement will include the plural and vice versa. The word "shall" or "will" is mandatory. The word "may" is permissive.

Section 6.6 **Integrated Document.** This Agreement contains all of the terms and conditions agreed upon by the Parties and supersedes any and all prior and contemporaneous agreements, negotiations, correspondence, understandings and communications of the Parties, whether oral or written, respecting the subject matter of this Agreement. As an example, and without limiting the scope of this Section 6.6~~5~~, any tolling agreements previously entered between any Plaintiffs and/or their Affiliates and Defendants are terminated as of the Effective Date. Notwithstanding any provision of this Section 6.6, the County Settlement Agreement remains in full force and effect between the County and the Defendants, except as specifically provided in the Amendment of the County Settlement Agreement attached to this Agreement as Exhibit "___".

Section 6.7 **Amendment**. Neither this Agreement, nor any of its provisions, may be waived, modified, amended, discharged or terminated except by an instrument in writing signed by the Parties, and then only to the extent set forth in such writing.

Section 6.8 **Cooperation.** After the Effective Date, each Party agrees to take such actions and to execute and deliver such documents as the other Parties may reasonably request to effectuate the purposes of this Agreement.

Section 6.9 **Consent.** Whenever a Party's approval, consent or satisfaction is required under this Agreement, such approval, consent or satisfaction will not be unreasonably withheld, delayed or conditioned except as may be expressly provided to the contrary in any other provision in this Agreement.

Section 6.10 **Authority**. The persons who have executed this Agreement represent that they have been authorized to do so by the Party on whose behalf the person is signing. All documents to be delivered under this Agreement will be executed by an authorized person. Each Party represents that it is authorized to enter into this Agreement and to perform all covenants of that Party contained in this Agreement.

Section 6.11 **No Third-Party Beneficiaries**. This Agreement does not create, and will not be construed to create, any rights enforceable by any Person that is not a Party to this Agreement.

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Section 6.12 Notices. Any notice, tender, delivery or other communication pursuant to this Agreement will be in writing, and will be deemed to be properly given by a Party if delivered, mailed or sent by e-mail or other electronic communication in the manner provided in this paragraph, to the following persons:

If to the Plaintiffs:

If to the County:

County of Sacramento
Attn: Michael L. Peterson, Director
Department of Water Resources
County of Sacramento
827 - 7th Street, Room 301
Sacramento, California 95814
Facsimile No.: (916) 874-8693
E-mail: petersonmi@saccounty.net

With copies to:
John F. Whisenhunt
Deputy County Counsel
County of Sacramento
700 H Street, Suite 2650
Sacramento, California 95814
Facsimile No.: (916) 874-8207
E-mail: whisenhuntj@saccounty.net

Stuart L. Somach
Somach Simmons & Dunn
500 Capital Mall, Suite 1000
Sacramento, CA 95814
Facsimile No. (916) 446-8199
E-mail: ssomach@somachlaw.com

If to Aerojet:
Aerojet- General Corporation
Attn: Chris W. Conley, Vice President
Highway 50 and Aerojet Road
Rancho Cordova, California 95670
Facsimile No.: (916) 351-8665
E-mail: Chris.Conley@aerojet.com

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With a copy to:
Aerojet- General Corporation
Attn: Brian E. Sweeney

Vice President, Legal
Highway 50 and Aerojet Road
Rancho Cordova, California 95670
Facsimile No.: (916) 351-8610

E-mail:
Brian.Sweeney@Aerojet.com

If to Boeing:
David L. Cohen
The Boeing Company
Mail Code WSB33
PO Box 2515
Seal Beach CA 90740-1515
Facsimile No.: (562) 797-5535

E-mail: david.l.cohen@boeing.com

With a copy to:
Richard C. Coffin
Barg Coffin Lewis & Trapp LLP
350 California Street
San Francisco, CA 94104-1435
Facsimile No.: (415) 228-5450

E-mail: rcc@bcltlaw.com

A Party may change that Party's address by giving written notice of the change to the other Parties in the manner provided in this Section 6.12. If sent by mail, any notice, delivery or other communication will be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, with postage prepaid, and addressed as set forth above. If sent by e-mail, facsimile or other form of electronic communication, any notice, delivery or other communication will be deemed to have been given at the time the communication was transmitted to an e-mail address in this Section 6.12, unless a recipient demonstrates that the electronic communication was not received. If delivered personally and a signed delivery receipt is obtained, any such notice, delivery or other communication will be deemed to have been given on the date of delivery.

Section 6.13 No Assignment. The obligations of the Parties under this Agreement may not be assigned, or otherwise transferred, except by operation of law, without the prior written consent of the Parties, which consent shall not be unreasonably withheld. In no event, shall any Party's approved assignment of any aspect of this Agreement relieve such Party of its obligations under this Agreement.

Section 6.14 Successors and Assigns. This Agreement will bind and inure to the benefit of each Party and to its respective successors in interest and approved assigns.

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Section 6.15 **No Admissions.** This Agreement pertains to disputed claims and is a result of compromise. As such, it does not constitute and will not be deemed as an admission of liability by any Party hereto.

Section 6.16 **Attorneys' Fees.** If any subsequent mediation or action is brought to enforce this Agreement, or for a breach thereof, the prevailing party in that mediation or action will be entitled to its reasonable attorneys' fees, experts' fees and costs.

Section 6.17 **Waiver and Estoppel.** No provision of this Agreement will be deemed waived by a Party unless expressly waived in a writing signed by the waiving Party. No waiver will be implied by delay or any other act or omission of a Party. No waiver by a Party of any provision of this Agreement will be deemed a waiver of such provision with respect to any subsequent matter relating to such provision. A Party's consent respecting any action by another Party will not constitute a waiver of the requirement for obtaining a Party's consent respecting any subsequent action. Nor will there be any estoppel by a Party to enforce any provision of this Agreement, except by a stipulation in writing.

Section 6.18 **Counterpart Originals.** This Agreement may be executed in counterparts and when executed, all such counterparts will constitute one agreement that will be binding upon the Parties, notwithstanding that the signatures of the Parties' designated representatives do not appear on the same page.

SUN RIDGE, LLC

By: _____

Date: _____

ANATOLIA, LLC

By: _____

Date: _____

SUNRIDGE-ANATOLIA, LLC

By: _____

Date: _____

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AKT INVESTMENTS, INC.

By: _____

Date: _____

SUNRIDGE PARK, LLC

By: _____

Date: _____

SUNRIDGE INVESTORS, LLC

By: _____

Date: _____

CRESLEIGH HOME CORPORATION

By: _____

Date: _____

DOUGLAS ROAD 105, L.P.

By: _____

Date: _____

LENNAR HOMES OF CALIFORNIA

By: _____

Date: _____

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DOUGLAS ROAD 103, L.P.

By: _____

Date: _____

BD PROPERTIES

By: _____

Date: _____

LOUIE PAPPAS

By: _____

Date: _____

VOULA PAPPAS

By: _____

Date: _____

JAEGER CORNER ENTERPRISES

By: _____

Date: _____

JAEGER 25

By: _____

Date: _____

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STEVEN J. SLAGLE

By: _____

Date: _____

STEPHANIE ST. AMOUR

By: _____

Date: _____

RONALD R. RINGEN

By: _____

Date: _____

SARA JUNE RINGEN

By: _____

Date: _____

NANCY WHITE

By: _____

Date: _____

COUNTY OF SACRAMENTO

By: _____

Date: _____

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SACRAMENTO WATER AGENCY

By: _____

Date: _____

AEROJET-GENERAL CORPORATION

By: _____

Date: _____

THE BOEING COMPANY

By: _____

Date: _____

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Appendix C

Regulatory Records Documentation

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Sunridge Solar
4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Inquiry Number: 6532774.7
June 14, 2021

EDR Environmental Lien and AUL Search

EDR® 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

4151 Poopenaut CT Address of Adjacent Switchyard
Sunridge Solar
Rancho Cordova, CA 95742

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

RESEARCH SOURCE

Source 1:

Sacramento Recorder
Sacramento, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	Sunridge Park LLC
Title received from:	Sunridge Investors LLC
Deed Dated	2/13/2004
Deed Recorded:	3/11/2004
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	apn chg
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Sunridge Park LLC
Parcel # / Property Identifier:	06707800110000
Comments:	See Exhibit

Deed Exhibit 1

RECORDING REQUESTED BY

PLACER TITLE COMPANY
Order No. 404-4959-PB
WHEN RECORDED MAIL TO:

Sunridge Park, LLC
7700 College Town Drive,#109
Sacramento, CA 95826

Sacramento County Recording
Mark Norris, Clerk/Recorder
BOOK 20040311 PAGE 1530
Thursday, MAR 11, 2004 2:19:09 PM
Ttl Pd $18.00 Nbr-0002847279
REB/51/1-4

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

GRANT DEED

THIS DOCUMENT IS BEING RE-RECORDED TO CORRECT THE GRANTEE'S NAME.

RECORDING REQUESTED BY

Placer Title Company

Escrow Number: 404-4959

AND WHEN RECORDED MAIL TO

SUNRIDGE PARK, LLC
7700 College Town Drive #109
Sacramento, CA 95826

Sacramento County Recording
Mark Norris, Clerk/Recorder
BOOK **20040224** PAGE **1858**
Tuesday, FEB 24, 2004 2:29:55 PM
Ttl Pd $13.00 Nbr-0002612016
008-Rancho Cordov DTT PAI SAH/45/1-3

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is declared by separate off-record affidavit, pursuant to R & T Code 11932

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **SUNRIDGE INVESTORS, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY**

Hereby GRANT(S) to **SUNRIDGE PARK, LLC , A CALIFORNIA LIMITED ~~PARTNERSHIP~~** LIABILITY COMPANY

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF SACRAMENTO, CITY OF RANCHO CORDOVA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

LOTS 1 AND 2 OF THE SOUTHEAST 1/4 OF SECTION 9, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M.;

THE SOUTH ONE-HALF OF THE SOUTH ONE-HALF OF SECTION 9, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M.; AND SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M., EXCEPTING THE FOLLOWING:

ALL THAT PORTION OF THE SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.B.& M. DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 16; THENCE, ALONG THE WEST LINE OF SA ID SECTION, NORTH 0 DEGREES 19 MINUTES 35 SECONDS WEST 4358.66 FEET; THENCE NORTH 89 DEGREES 56 MINUTES 50 SECONDS EAST 5290.23 FEET TO A POINT ON THE EAST LINE OF SAID SECTION AND IN AN OLD FENCE; THENCE, ALONG SAID SECTION LINE AND SAID OLD FENCE, SOUTH 0 DEGREES 30 MINUTES EAST 4358.74 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 16 AND AN OLD FENCE CORNER; THENCE ALONG THE SOUTH LINE OF SAID SECTION, SOUTH 89 DEGREES 56 MINUTES 50 SECONDS WEST 5303.44 FEET TO THE POINT OF BEGINNING.

EXCEPTING FROM THE LANDS HEREINABOVE DESCRIBED THE WEST 2645.04 FEET.

ALSO EXCEPTING THEREFROM ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS, LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE OF SAID LAND AND REAL PROPERTY, WHEATHER NOW KNOWN TO EXIST OR HEREAFTER DISCOVERED, INCLUDING, BUT NOT LIMITED TO, THE RIGHTS TO EXPLORE FOR, DEVELOP, AND REMOVE SUCH OIL, GAS, AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS WITHOUT, HOWEVER, ANY RIGHT, TO USE THE SURFACE OF SUCH LAND AND REAL PROPERTY OR ANY OTHER PORTION THEREOF ABOVE A DEPTH OF 500 FEET FROM THE SURFACE OF SUCH LAND AND REAL PROPERTY FOR ANY PURPOES WHATSOEVER, THE

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE, IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

SAME AS ABOVE

Name Street Address City & State

RIGHTS RESERVED TO EXPLORE FOR, DEVELOP AND REMOVE SUCH OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INTERT GASES, MINERALS, AND METALS SHALL NOT INTERFER WITH NOR DISTURB THE USE AND OWNERSHIP OF SAID LAND AND REAL PROPERTY, AS RESERVED IN THAT CERTAIN GRANT DEED RECORDED MARCH 19, 2002, INSTRUMENT NO. 20020319 344, OFFICIAL RECORDS.

APN: 067-0040-014

PARCEL TWO:

THE EAST 1322.52 FEET OF THE WEST 2645.04 FEET OF THE FOLLOWING DESCRIBED LAND:

LOTS 1 AND 2 OF THE SOUTHEAST 1/4 OF SECTION 9, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M.;
LOTS 3 AND 4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M.;
THE SOUTH ONE-HALF OF THE SOUTH ONE-HALF OF SECTION 9, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M.;
AND
SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.M., EXCEPTING THEREFROM THE FOLLOWING:

ALL THAT PORTION OF SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.B.& M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 16; THENCE, ALONG THE WEST LINE OF SAID SECTION, NORTH 0 DEGREES 19 MINUTES 35 SECONDS WEST 4358.66 FEET; THENCE NORTH 89 DEGREES 56 MINUTES 50 SECONDS EAST 5290.23 FEET TO A POINT ON THE EAST LINE OF SAID SECTION AND IN AN OLD FENCE; THENCE, ALONG SAID SECTION LINE AND SAID OLD FENCE, SOUTH 0 DEGREES 30 MINUTES EAST 4358.74 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 16 AND AN OLD FENCE CORNER; THENCE, ALONG THE SOUTH LINE OF SAID SECTION, SOUTH 89 DEGREES 56 MINUTES 50 SECONDS WEST 5303.44 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS, LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE OF SAID LAND AND REAL PROPERTY, WHEATHER NOW KNOWN TO EXIST OR HEREAFTER DISCOVERED, INCLUDING, BUT NOT LIMITED TO, THE RIGHTS TO EXPLORE FOR, DEVELOP, AND REMOVE SUCH OIL, GAS, AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS WITHOUT, HOWEVER, ANY RIGHT, TO USE THE SURFACE OF SUCH LAND AND REAL PROPERTY OR ANY OTHER PORTION THEREOF ABOVE A DEPTH OF 500 FEET FROM THE SURFACE OF SUCH LAND AND REAL PROPERTY FOR ANY PURPOES WHATSOEVER, THE RIGHTS RESERVED TO EXPLORE FOR, DEVELOP AND REMOVE SUCH OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INTERT GASES, MINERALS, AND METALS SHALL NOT INTERFER WITH NOR DISTURB THE USE AND OWNERSHIP OF SAID LAND AND REAL PROPERTY, AS RESERVED IN THAT CERTAIN GRANT DEED RECORDED MARCH 19, 2002, INSTRUMENT NO. 20020319 344, OFFICIAL RECORDS.

APN: 067-0040-015

Dated: February 13, 2004

SUNRIDGE INVESTORS, LLC, a California limited liability company
By:_____
Brian C. Vail, Manager

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE, IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

SAME AS ABOVE

Name | Street Address | City & State

STATE OF CALIFORNIA
COUNTY OF

On 2/10/2004 before me, KATI MOIRA REDMOND, NOTARY PUBLIC personally appeared BRIAN C. VAIL

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 an 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: Kati Moira Redmond
Commission Expiration Date: AUGUST 19, 04

KATI MOIRA REDMOND
Commission # 1274449
Notary Public - California
Sacramento County
My Comm. Expires Aug 19, 2004

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE, IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

SAME AS ABOVE

Name | Street Address | City & State

Sunridge Solar
4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Inquiry Number: 6532774.6
June 11, 2021

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.

NO COVERAGE

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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Sunridge Solar
4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Inquiry Number: 6532774.8
June 11, 2021

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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About This Report

Executive Summary

Findings

Glossary

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with any questions or comments.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting 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.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of EA Engineering Science & Tech. on Jun 11, 2021.

TARGET PROPERTY

4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Rancho Cordova

Year	*Source*	*TP*	*Adjoining*
2020	City of Rancho Cordova, Building and Safety		X
2019	City of Rancho Cordova, Building and Safety		X
2018	City of Rancho Cordova, Building and Safety		X
2017	City of Rancho Cordova, Building and Safety		X
2016	City of Rancho Cordova, Building and Safety		X
2015	City of Rancho Cordova, Building and Safety		X
2014	City of Rancho Cordova, Building and Safety		X
2013	City of Rancho Cordova, Building and Safety		X
2012	City of Rancho Cordova, Building and Safety		
2011	City of Rancho Cordova, Building and Safety		X
2010	City of Rancho Cordova, Building and Safety		X
2009	City of Rancho Cordova, Building and Safety		X
2008	City of Rancho Cordova, Building and Safety		X
2007	City of Rancho Cordova, Building and Safety		X
2006	City of Rancho Cordova, Building and Safety		X
2005	City of Rancho Cordova, Building and Safety		X
2004	City of Rancho Cordova, Building and Safety		
2003	City of Rancho Cordova, Building and Safety		
2002	City of Rancho Cordova, Building and Safety		
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1996	City of Rancho Cordova, Building and Safety		
1995	City of Rancho Cordova, Building and Safety		
1994	City of Rancho Cordova, Building and Safety		
1993	City of Rancho Cordova, Building and Safety		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1992	City of Rancho Cordova, Building and Safety		
1991	City of Rancho Cordova, Building and Safety		
1990	City of Rancho Cordova, Building and Safety		
1989	City of Rancho Cordova, Building and Safety		
1988	City of Rancho Cordova, Building and Safety		
1987	City of Rancho Cordova, Building and Safety		

Sacramento County

Year	Source	TP	Adjoining
2021	Sacramento County, Planning and Community Develop		
2020	Sacramento County, Planning and Community Develop		
2019	Sacramento County, Planning and Community Develop		
2018	Sacramento County, Planning and Community Develop		
2017	Sacramento County, Planning and Community Develop		
2016	Sacramento County, Planning and Community Develop		
2015	Sacramento County, Planning and Community Develop		
2014	Sacramento County, Planning and Community Develop		
2013	Sacramento County, Planning and Community Develop		
2012	Sacramento County, Planning and Community Develop		
2011	Sacramento County, Planning and Community Develop		
2010	Sacramento County, Planning and Community Develop		
2009	Sacramento County, Planning and Community Develop		
2008	Sacramento County, Planning and Community Develop		
2007	Sacramento County, Planning and Community Develop		X
2006	Sacramento County, Planning and Community Develop		X
2005	Sacramento County, Planning and Community Develop		
2004	Sacramento County, Planning and Community Develop		
2003	Sacramento County, Planning and Community Develop		
2002	Sacramento County, Planning and Community Develop		
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1992	Sacramento County, Planning and Community Develop		
1991	Sacramento County, Planning and Community Develop		
1990	Sacramento County, Planning and Community Develop		
1989	Sacramento County, Planning and Community Develop		
1988	Sacramento County, Planning and Community Develop		
1987	Sacramento County, Planning and Community Develop		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1986	Sacramento County, Planning and Community Develop		
1985	Sacramento County, Planning and Community Develop		
1984	Sacramento County, Planning and Community Develop		
1983	Sacramento County, Planning and Community Develop		
1982	Sacramento County, Planning and Community Develop		
1981	Sacramento County, Planning and Community Develop		
1980	Sacramento County, Planning and Community Develop		

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Rancho Cordova
Years: 1987-2020
Source: City of Rancho Cordova, Building and Safety, RANCHO CORDOVA, CA
Phone: (916) 851-8760

Name: Sacramento County
Years: 1980-2021
Source: Sacramento County, Planning and Community Development Department, RANCHO CORDOVA,
Phone: (916) 874-6141

Name: Redding
Years: 1926-2021
Source: City of Redding, Development Services, Building Division, OAKLAND, CA
Phone: 530-225-4014

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BORDERLANDS DR

4075 BORDERLANDS DR

Date:	**4/12/2010**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village Village 11A Plan SP3520 w/4th Bdrm/Loft 2081 sf Option: Patio Lot 55**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2010-6881
Status:	CLOSED
Valuation:	$262,494.54
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- RD-5

4079 BORDERLANDS DR

Date:	**5/5/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A 56 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6473
Status:	CLOSED
Valuation:	$201,598.02
Contractor Company:	
Contractor Name:	RD-5 WOODSIDE HOMES OF N. CA. INC 111 Woodmere Dr #190 Folsom CA 95630

ADJOINING PROPERTY FINDINGS

4083 BORDERLANDS DR

Date:	**3/20/2013**
Permit Type:	**R-OTHER**
Description:	**2.5 KW roof mount solar pv**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-541674
Status:	CLOSED
Valuation:	$15,600.00
Contractor Company:	
Contractor Name:	

Date:	**5/22/2007**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 1A Lot 57 Plan SP3510 OPTION: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2007-5231
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF N. CA. INC 111 Woodmere Dr #190 Folsom CA 95630

ADJOINING PROPERTY FINDINGS

Date:	**4/27/2007**
Permit Type:	
Description:	**DT2007-0068** **Woodside Homes Sunridge Park Village 1A & 11A Plan SP3510 Lot# 57.THIS IS NOT A PERMIT,THE CASE IS FOR FEE COLLECTION ONLY.**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2007-00456
Status:	Open
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4087 BORDERLANDS DR

Date:	**3/5/2018**
Permit Type:	**R-OTHER**
Description:	**4.03 KW PV SOLAR ROOF MOUNT 200 AMP**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2018-565477
Status:	OPEN
Valuation:	$25,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/1/2007**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 58 Plan SP3520 w/4th Bdrm/Loft OPTION: Patio**
Permit Description:	**production homes**
Work Class:	
Proposed Use:	
Permit Number:	2007-5192
Status:	CLOSED
Valuation:	$206,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**4/3/2007**
Permit Type:	
Description:	**DT2007-0054** **Woodside Homes Sunridge Park Village 1A & 11A Plan SP3520 Lot# 58.THIS IS NOT A PERMIT, THE CASE IS FOR FEE COLLECTION ONLY.**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2007-00383
Status:	Open
Valuation:	$206,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4091 BORDERLANDS DR

Date:	**6/8/2007**
Permit Type:	**P-BLDG**
Description:	**CH01 Plan SP3240 Woodside Homes Sunridge Park Village 11A Lot 59 Plan SP3510 OPTION: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2007-5190
Status:	CLOSED
Valuation:	$249,872.90
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-WOODSIDE HOMES OF N. CA. INC 1

Date:	**4/3/2007**
Permit Type:	
Description:	**DT2007-0054** **Woodside Homes Sunridge Park Village 1A & 11A Plan SP3510 Lot# 59.THIS IS NOT A PERMIT, THE CASE IS FOR FEE COLLECTION ONLY.**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2007-00384
Status:	Open
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4095 BORDERLANDS DR

Date:	**1/28/2020**
Permit Type:	**PME**
Description:	**c/o 50 gal gas wh in garage**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2020-572082
Status:	OPEN
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	

Date:	**11/7/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11 Unit A Lot 60 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4551
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

Date:	**11/1/2006**
Permit Type:	
Description:	**PRJ2006-00113** **Woodside Homes Sunridge Park Village 11 Unit A Lot 60 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00696
Status:	Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4099 BORDERLANDS DR

Date:	**11/7/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11 Unit A Lot 61 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4710
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

Date:	**11/1/2006**
Permit Type:	
Description:	**PRJ2006-00113** **Woodside Homes Sunridge Park Village 11 Unit A Lot 61 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00697
Status:	Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4103 BORDERLANDS DR

Date:	**8/15/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Unit A Lot 62 Plan SP3240**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4423
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/2/2006**
Permit Type:	
Description:	**PRJ2006-00085** **CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Unit A Lot 62 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00539
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

4107 BORDERLANDS DR

Date:	**7/6/2017**
Permit Type:	**PME**
Description:	**C/O HVAC / FURNACE LOCATED IN ATTIC / LIKE FOR LIKE**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2017-563244
Status:	OPEN
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/15/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Unit A Lot 63 Plan SP3520**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4424
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/2/2006**
Permit Type:	
Description:	**PRJ2006-00085** **CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Unit A Lot 63 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00540
Status:	Reactivated Issued
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4111 BORDERLANDS DR

Date:	**8/15/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Village Unit A Lot 35 in Village 11 Plan SP3240**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4612
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/2/2006**
Permit Type:	
Description:	**PRJ2006-00085** **CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Village 11A Lot 35 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00538
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

PAWCATUCK WAY

12404 PAWCATUCK WAY

Date:	**12/11/2015**
Permit Type:	**R-OTHER**
Description:	**4.16kW ROOF MOUNT PV SOLAR SYSTEM**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2015-557506
Status:	OPEN
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	

Date:	**10/29/2015**
Permit Type:	**R-OTHER**
Description:	**New PV solar system, 4.16 KW roof mount system.**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2015-557151
Status:	OPEN
Valuation:	$9,194.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**6/21/2006**
Permit Type:	**P-BLDG**
Description:	**CH02 Add 254 sf Plan 2033 w/bonus bed ste CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 63**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4477
Status:	CLOSED
Valuation:	$213,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES 3721 Douglas Blvd Roseville CA 95661-

Date:	**5/22/2006**
Permit Type:	
Description:	**PRJ2006-00057** **CH02 Add 254 sf Plan 2033 w/bonus bed ste CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 63 2287 sf, garage 741 sf & porch 277 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00338
Status:	Reactivated Issued
Valuation:	$285,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

ADJOINING PROPERTY FINDINGS

12408 PAWCATUCK WAY

Date:	**7/30/2007**
Permit Type:	**R-OTHER**
Description:	**14' x 17' combo patio cover**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2007-529065
Status:	STOP WORK
Valuation:	$5,614.42
Contractor Company:	
Contractor Name:	NORTHWEST EXTERIORS 11200 Sun Center Dr Rancho Cordova CA 95670-

Date:	**6/21/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 62**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4365
Status:	CLOSED
Valuation:	$140,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES 3721 Douglas Blvd Roseville CA 95661-

ADJOINING PROPERTY FINDINGS

Date:	**5/22/2006**
Permit Type:	
Description:	**PRJ2006-00057** **CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 62 1864 sf, garage 477 sf & porch 35 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00334
Status:	Reactivated Issued
Valuation:	$140,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

12412 PAWCATUCK WAY

Date:	**6/21/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 61**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4439
Status:	CLOSED
Valuation:	$128,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES 3721 Douglas Blvd Roseville CA 95661-

ADJOINING PROPERTY FINDINGS

Date:	**5/22/2006**
Permit Type:	
Description:	**PRJ2006-00057** **CH01 FULL PERMIT Foundation Only Beazer Sunridge Park Village 10A Lot 61 1650 sf, garage 494 & porch 141 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00331
Status:	Issued
Valuation:	$128,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

12416 PAWCATUCK WAY

Date:	**7/25/2008**
Permit Type:	**P-BLDG**
Description:	**Beazer Homes Sunridge Park Village 10A Lot 60 Plan 1650 OPTION: 131 sf Porch**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5839
Status:	CLOSED
Valuation:	$173,432.54
Contractor Company:	
Contractor Name:	BEAZER HOMES ESCROW ACCT 3721 Douglas Blvd Ste 100 Roseville CA 95661-

ADJOINING PROPERTY FINDINGS

Date:	**10/9/2007**
Permit Type:	**PME**
Description:	**temp power pole**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	
Proposed Use:	
Permit Number:	2007-529495
Status:	CLOSED
Valuation:	$1,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES ESCROW ACCT 3721 Douglas Blvd Ste 100 Roseville CA 95661-

12420 PAWCATUCK WAY

Date:	**7/24/2006**
Permit Type:	
Description:	**PRJ2006-00082** **Beazer Sunridge Park Village 10A Lot 59 MODEL HOME 1468 sf, garage 472 sf & porch 75 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00492
Status:	Issued
Valuation:	$114,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

ADJOINING PROPERTY FINDINGS

Date:	**7/24/2006**
Permit Type:	**P-BLDG**
Description:	**Beazer Sunridge Park Village 10A Lot 59 MODEL Plan 1468**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4432
Status:	CLOSED
Valuation:	$114,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES 3721 Douglas Blvd Roseville CA 95661-

12424 PAWCATUCK WAY

Date:	**5/1/2006**
Permit Type:	**P-BLDG**
Description:	**Beazer Homes Sunridge Park Village 10A Lot 58 Model**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4167
Status:	CLOSED
Valuation:	$213,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES ESCROW ACCT 3721 Douglas Blvd Ste 100 Roseville CA 95661- BEAZER HOMES 3721 Douglas

ADJOINING PROPERTY FINDINGS

Date:	**4/12/2006**
Permit Type:	
Description:	**PRJ2006-00040** **Beazer Homes Sunridge Park Village 10A Lot 58 Model Home**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00215
Status:	Reactivated Issued
Valuation:	$264,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

12428 PAWCATUCK WAY

Date:	**5/1/2006**
Permit Type:	**P-BLDG**
Description:	**Beazer Homes Sunridge Park Village 10A Lot 57 Model**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4148
Status:	CLOSED
Valuation:	$175,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES ESCROW ACCT 3721 Douglas Blvd Ste 100 Roseville CA 95661- BEAZER HOMES 3721 Douglas

ADJOINING PROPERTY FINDINGS

Date:	**4/12/2006**
Permit Type:	
Description:	**PRJ2006-00040** **Beazer Homes Sunridge Park Village 10A Lot 57 Model Home**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00213
Status:	Reactivated Issued
Valuation:	$175,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

12432 PAWCATUCK WAY

Date:	**7/15/2014**
Permit Type:	**R-OTHER**
Description:	**Fire Repair - Left side of home repair stucco (3 coat system), change out window (bedroom) - violation 39452**
Permit Description:	**residential accessory structures**
Work Class:	Repair Work
Proposed Use:	
Permit Number:	2014-548156
Status:	OPEN
Valuation:	$1,500.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/19/2006**
Permit Type:	**C-BLDG**
Description:	**Convert garage of Model Home to temporary sales office CONTRACTOR LICENSE: 818129**
Permit Description:	**commercial building, alterations, tenant improvements**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-526835
Status:	CLOSED
Valuation:	$48,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES 3721 Douglas BlSuite 100 Roseville CA 95661

Date:	**8/11/2006**
Permit Type:	
Description:	**Convert garage of Model Home to temporary sales office**
Permit Description:	
Work Class:	New Buildings, New added square footage
Proposed Use:	Commercial/Multi-Family/Condo/Apt.
Permit Number:	CBN2006-02157
Status:	Expired Non-Responsive
Valuation:	$48,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

Date:	**5/1/2006**
Permit Type:	**P-BLDG**
Description:	**Beazer Homes Sunridge Park Village 10A Lot 56 Model**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4232
Status:	CLOSED
Valuation:	$160,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES ESCROW ACCT 3721 Douglas Blvd Ste 100 Roseville CA 95661- BEAZER HOMES 3721 Douglas

ADJOINING PROPERTY FINDINGS

Date:	**4/12/2006**
Permit Type:	
Description:	**PRJ2006-00040** **Beazer Homes Sunridge Park Village 10A Lot 56 Model Home**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00189
Status:	Issued
Valuation:	$160,000.00
Contractor Company:	
Contractor Name:	BEAZER HOMES HOLDINGS LLC

POOPENAUT CT

4100 POOPENAUT CT

Date:	**8/29/2005**
Permit Type:	**C-OTHER**
Description:	**Install concrete pad, equipment, piping, fence, gates and well vault for new Remediation System Address corrected from 11505 Douglas Rd to 4100 Poopenaut Ct MAM 6-8-06**
Permit Description:	**commercial accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2005-524576
Status:	CLOSED
Valuation:	$350,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

PRESERVE WAY

4059 PRESERVE WAY

Date:	**8/13/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 19**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6618
Status:	CLOSED
Valuation:	$201,598.02
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- RD-5 WOODSIDE HOMES OF N. CA.

4063 PRESERVE WAY

Date:	**12/7/2017**
Permit Type:	**R-OTHER**
Description:	**REPLACE PATIO DOOR**
Permit Description:	**residential accessory structures**
Work Class:	Repair Work
Proposed Use:	
Permit Number:	2017-564721
Status:	OPEN
Valuation:	$9,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**1/17/2014**
Permit Type:	**R-OTHER**
Description:	**11' x 15' lattice cover**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2014-543803
Status:	OPEN
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	

Date:	**4/22/2013**
Permit Type:	**R-OTHER**
Description:	**Installation of 4410Wdc rooftop solar system**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-541851
Status:	CLOSED
Valuation:	$9,000.00
Contractor Company:	
Contractor Name:	

Date:	**1/28/2013**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11B Plan-1 (1566) Single Story Elev A, B & C Non-Solar Lot 39**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-7785
Status:	CLOSED
Valuation:	$201,163.32
Contractor Company:	
Contractor Name:	Woodside Homes

ADJOINING PROPERTY FINDINGS

4067 PRESERVE WAY

Date:	**7/30/2013**
Permit Type:	**PME**
Description:	**Install water softener & filter outside (sideyard)**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	
Proposed Use:	
Permit Number:	2013-542567
Status:	CLOSED
Valuation:	$2,950.00
Contractor Company:	
Contractor Name:	

Date:	**4/22/2013**
Permit Type:	**R-OTHER**
Description:	**Installation of 4410Wdc rooftop solar system**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-541852
Status:	CLOSED
Valuation:	$9,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**1/28/2013**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11B Plan-2X (2305) 2 story Elev A, B & C Non Solar Lot 38**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-7784
Status:	CLOSED
Valuation:	$283,146.90
Contractor Company:	
Contractor Name:	Woodside Homes

4068 PRESERVE WAY

Date:	**9/9/2016**
Permit Type:	**R-OTHER**
Description:	**338SF SOLID ATTACHED ALUMINUM PATIO COVER WITH ELECTRICAL**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2016-560229
Status:	OPEN
Valuation:	$6,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**10/1/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village Village 11A Lot 23 Plan SP3520 w/4th Bdrm/Loft 2081 sf Option: Patio**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6670
Status:	CLOSED
Valuation:	$262,494.54
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- RD-5

4071 PRESERVE WAY

Date:	**4/22/2013**
Permit Type:	**R-OTHER**
Description:	**Installation of 2940Wdc rooftop solar system**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-541853
Status:	CLOSED
Valuation:	$7,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**1/28/2013**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11B Plan 3 (2244) 2 Story Elev A, B & C Non -Solar Lot 37**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2013-7783
Status:	OPEN
Valuation:	$280,307.40
Contractor Company:	
Contractor Name:	Woodside Homes

4072 PRESERVE WAY

Date:	**9/10/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11 Lot 24 Plan SP-3511 1713 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6632
Status:	CLOSED
Valuation:	$216,927.50
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- RD-5

ADJOINING PROPERTY FINDINGS

4075 PRESERVE WAY

Date:	**5/15/2015**
Permit Type:	**R-OTHER**
Description:	**Install 20.1 KW AC grid tied rooftop photovoltaic solar system onto aluminum patio cover (patio cover BP# 551810)**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2015-552501
Status:	OPEN
Valuation:	$18,000.00
Contractor Company:	
Contractor Name:	

Date:	**3/4/2015**
Permit Type:	**R-OTHER**
Description:	**INSTALL ATTACHED SOLID ALUMINUM PATIO COVER (220 SF)**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2015-551810
Status:	OPEN
Valuation:	$8,710.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/21/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 18 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5901
Status:	CLOSED
Valuation:	$166,284.01
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-WOODSIDE HOMES OF N. CA. INC 1

4076 PRESERVE WAY

Date:	**5/5/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 25 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6471
Status:	CLOSED
Valuation:	$201,598.02
Contractor Company:	
Contractor Name:	RD-5 WOODSIDE HOMES OF N. CA. INC 111 Woodmere Dr #190 Folsom CA 95630

ADJOINING PROPERTY FINDINGS

4079 PRESERVE WAY

Date:	**9/15/2011**
Permit Type:	**R-OTHER**
Description:	**Open lattice patio cover**
Permit Description:	**residential accessory structures**
Work Class:	Addition
Proposed Use:	
Permit Number:	2011-538805
Status:	CLOSED
Valuation:	$3,992.40
Contractor Company:	
Contractor Name:	SIERRA SUNSCREENS & PATIO COVE 3345 Sunrise Blvd #5 Rancho Cordova CA 95742- RD-5

Date:	**8/21/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 17 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5900
Status:	CLOSED
Valuation:	$166,284.01
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

4080 PRESERVE WAY

Date:	**5/5/2009**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village Village 11A Lot 26 Plan SP3520 w/4th Bdrm/Loft 2081 sf Option: Patio**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-6472
Status:	CLOSED
Valuation:	$262,494.54
Contractor Company:	
Contractor Name:	Woodside Homes

4083 PRESERVE WAY

Date:	**10/29/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village Village 11A Plan SP3520 w/4th Bdrm/Loft 2081 sf Option: Patio Lot 16**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-6153
Status:	CLOSED
Valuation:	$216,445.37
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

4084 PRESERVE WAY

Date:	**10/2/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11 Plan SP-3511 1713 sf lot 27**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-6154
Status:	CLOSED
Valuation:	$178,878.49
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

4087 PRESERVE WAY

Date:	**10/20/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 15 Plan SP3510 1543 sq ft Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-6252
Status:	CLOSED
Valuation:	$164,881.43
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF N. CA. INC 111 Woodmere Dr #190 Folsom CA 95630

ADJOINING PROPERTY FINDINGS

4088 PRESERVE WAY

Date:	**8/11/2017**
Permit Type:	**PME**
Description:	**INSTALL WATER SOFTNER**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2017-563554
Status:	CLOSED
Valuation:	$1,000.00
Contractor Company:	
Contractor Name:	

Date:	**7/28/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 28 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5828
Status:	CLOSED
Valuation:	$166,284.01
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

4091 PRESERVE WAY

Date:	**8/13/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 14 Plan SP-3511 1713 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5875
Status:	CLOSED
Valuation:	$178,878.49
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

4092 PRESERVE WAY

Date:	**6/18/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 29 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5786
Status:	CLOSED
Valuation:	$166,284.01
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

4095 PRESERVE WAY

Date:	**7/19/2019**
Permit Type:	**PME**
Description:	**CHANGE OUT A/C FURNANCE, COIL LIKE FOR LIKE.**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	Repair Work
Proposed Use:	
Permit Number:	2019-570171
Status:	OPEN
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	

Date:	**8/21/2008**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 13 Plan SP3510 1543 sf Option: Deck**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2008-5830
Status:	CLOSED
Valuation:	$166,284.01
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630- WOODSIDE HOMES OF N. CA. INC 1

ADJOINING PROPERTY FINDINGS

4096 PRESERVE WAY

Date:	**8/25/2017**
Permit Type:	**PME**
Description:	**FURNACE C/O IN ATTIC**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2017-563755
Status:	OPEN
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 30 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4620
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 30 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00613
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

4099 PRESERVE WAY

Date:	**8/3/2016**
Permit Type:	**R-OTHER**
Description:	**ROOFTOP PV SOLAR 3.9KW**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2016-559859
Status:	CLOSED
Valuation:	$9,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**12/29/2014**
Permit Type:	**R-OTHER**
Description:	**4.845 KW roof mount PV solar System with normal inverter**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2014-550269
Status:	OPEN
Valuation:	$10,707.00
Contractor Company:	
Contractor Name:	

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village11A Lot 12 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4496
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village11A Lot 12 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00612
Status:	Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

4100 PRESERVE WAY

Date:	**10/25/2019**
Permit Type:	**PME**
Description:	**C/O WATER HEATER / 50 GAL GAS / LOCATED GARAGE**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2019-571324
Status:	OPEN
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 31 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4526
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 31 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00618
Status:	Reactivated Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4103 PRESERVE WAY

Date:	**12/5/2017**
Permit Type:	**R-OTHER**
Description:	**312SF ATTACHED PATIO COVER WITH 3 LIGHTS**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2017-564694
Status:	CLOSED
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Plan Lot 11 SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4500
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Plan Lot 11 SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00608
Status:	Reactivated Issued
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

4104 PRESERVE WAY

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 32 Plan SP3230 2419 sf, garage 526 sf & porch 147 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4416
Status:	CLOSED
Valuation:	$298,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 32 Plan SP3230 2419 sf, garage 526 sf & porch 147 sf PROTO-TYPE**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00620
Status:	Issued
Valuation:	$298,000.00
Contractor Company:	
Contractor Name:	

4107 PRESERVE WAY

Date:	**11/7/2016**
Permit Type:	**R-OTHER**
Description:	**8 X17 & 11 X 10 attached patio cover with fan & light 232 sf**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2016-560762
Status:	CLOSED
Valuation:	$4,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**10/18/2016**
Permit Type:	**R-OTHER**
Description:	**SOLAR ROOFTOP PV SYSTEM 4.94KW**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2016-560552
Status:	OPEN
Valuation:	$21,000.00
Contractor Company:	
Contractor Name:	

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 10 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4495
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 10 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00611
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

4108 PRESERVE WAY

Date:	**5/22/2017**
Permit Type:	**PME**
Description:	**HVAC C/O SPLIT SYSTEM / FURNACE IN CLOSET**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2017-562828
Status:	OPEN
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 33 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4550
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 33 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00609
Status:	Issued
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4111 PRESERVE WAY

Date:	**1/2/2020**
Permit Type:	**PME**
Description:	**Remove Old Split System and Replace with Lennox (3 Ton, SEER 16, AFUE 93) Gas Split System**
Permit Description:	**miscellaneous plumbing and/or mechanical and/or electrical work, residential and commercial**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2019-571758
Status:	OPEN
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 9 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4716
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 9 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00617
Status:	Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4112 PRESERVE WAY

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 34 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4501
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 34 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00614
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

4115 PRESERVE WAY

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 8 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4653
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 8 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00616
Status:	Reactivated Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4119 PRESERVE WAY

Date:	**5/1/2015**
Permit Type:	**R-OTHER**
Description:	**Install 18*30 attached solid patio cover with electrical, 2 ceiling fans. 516 square feet.**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2015-552355
Status:	OPEN
Valuation:	$5,500.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 7 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4549
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 7 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00607
Status:	Reactivated Issued
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4123 PRESERVE WAY

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 6 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4494
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 6 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00610
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4127 PRESERVE WAY

Date:	**4/1/2009**
Permit Type:	**R-OTHER**
Description:	**336 sq ft patio cover**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2009-532055
Status:	CLOSED
Valuation:	$12,673.92
Contractor Company:	
Contractor Name:	PETKUS BROTHERS 3600 Sunrise Bl. Rancho Cordova CA 95670-

Date:	**9/21/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 5 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4619
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 5 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00606
Status:	Finaled
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

4131 PRESERVE WAY

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 4 Plan SP3510 1543 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4758
Status:	CLOSED
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 4 Plan SP3510 1543 sf, garage 425 sf & porch 148 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00615
Status:	Issued
Valuation:	$148,000.00
Contractor Company:	
Contractor Name:	

4135 PRESERVE WAY

Date:	**3/6/2019**
Permit Type:	**R-OTHER**
Description:	**PV SOLAR 5.2KW ROOFTOP / CH-01 03/18/19 SOLAR PANEL LAYOUT CHANGE**
Permit Description:	**residential accessory structures**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2019-568688
Status:	CLOSED
Valuation:	$23,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/26/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 3 Plan SP3230 2419 sf, garage 526 sf & porch 147 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4654
Status:	CLOSED
Valuation:	$298,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 3 Plan SP3230 2419 sf, garage 526 sf & porch 147 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00619
Status:	Issued
Valuation:	$298,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4139 PRESERVE WAY

Date:	**9/21/2006**
Permit Type:	**P-BLDG**
Description:	**Woodside Homes Sunridge Park Village 11A Lot 2 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4493
Status:	CLOSED
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/30/2006**
Permit Type:	
Description:	**PRJ2006-00105** **Woodside Homes Sunridge Park Village 11A Lot 2 Plan SP3520 2081 sf, garage 444 sf & porch 117 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00605
Status:	Issued
Valuation:	$256,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

4143 PRESERVE WAY

Date:	**8/15/2006**
Permit Type:	**P-BLDG**
Description:	**CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Village Unit A Lot 1 in Village 11 Plan SP3240**
Permit Description:	**production homes**
Work Class:	New Structure
Proposed Use:	
Permit Number:	2006-4611
Status:	CLOSED
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	WOODSIDE HOMES OF NO CAL 111 Woodmere Dr Ste 190 Folsom CA 95630-

Date:	**8/2/2006**
Permit Type:	
Description:	**PRJ2006-00085** **CH01 FULL PERMIT Foundation Only Woodside Homes Sunridge Park Village 11A Lot 1 Plan SP3240 2590 sf, garage 501 sf & porch 196 sf**
Permit Description:	
Work Class:	Production Housing
Proposed Use:	Residential/Single-Family/Duplex
Permit Number:	PHC2006-00537
Status:	Reactivated Issued
Valuation:	$318,000.00
Contractor Company:	
Contractor Name:	

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

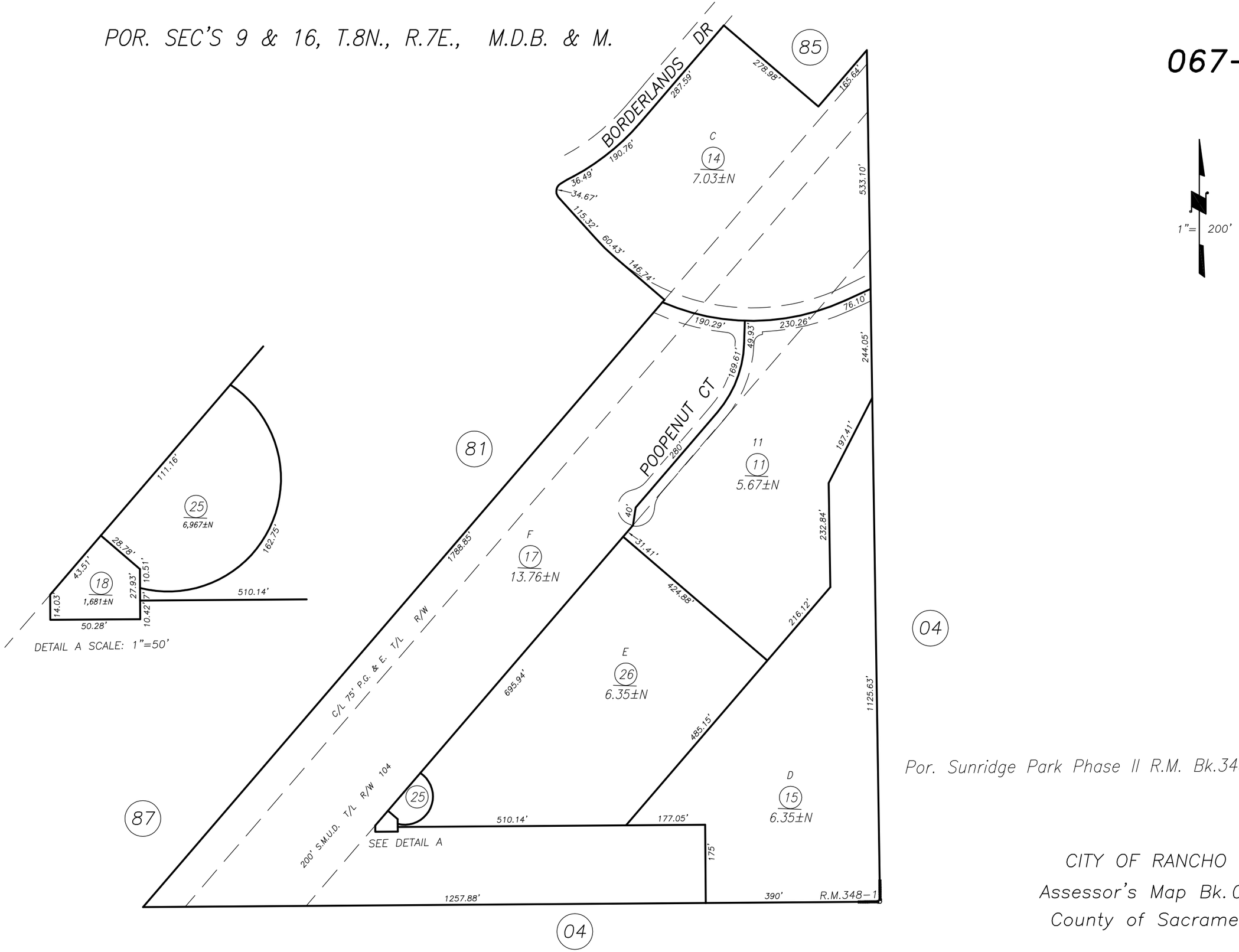
Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

POR. SEC'S 9 & 16, T.8N., R.7E., M.D.B. & M.

067-78



1"= 200'

Por. Sunridge Park Phase II R.M. Bk.348 Pg.1 (3-7-2006)

CITY OF RANCHO CORDOVA

Assessor's Map Bk. 067 Pg. 078

County of Sacramento, Calif.

SACRAMENTO COUNTY

Assessor Parcel Viewer

APN: 06707800110000

Print date: 6/23/2021

Sacramento County Boundary

Parcel Boundaries, Level 16,17,18,19,20

N

1" = 149'

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Information for Parcel:
067-0780-011-0000

Read Our Data Disclaimer

PROPERTY INFORMATION

Assessor Parcel #	06707800110000
Address	POOPENAUT CT
Postal City, Zip	RANCHO CORDOVA 95742
Jurisdiction	City of Rancho Cordova
County Supervisor District	**Don Nottoli - District 5**
Assessor Roll Status	ACTIVE
Assessor's Map	**Assessor's Map Book 067, Page 078**

PROPERTY TAX BILL

A summary of the most recent property tax bill is available on the e-PropTax site.

Tax Rate Area Code	**08-004**
Jurisdiction Used on Most Recent Tax Roll	RANCHO CORDOVA
Last Roll Year	2020

ASSESSOR'S ROLL VALUES

as of September 17, 2020

Tax Roll Year	2020	
Land Value		$800,000
Improvement Value		$0
Personal Property Value		$0
Fixtures		$0
Homeowner's Exemption		-$0
Other Exemption		-$0
Net Assessed Value		$800,000
Property tax bill information	**Link to ePropTax**	

Additional information regarding Assessor's roll values can be obtained by contacting the Assessor's Office at 916-875-0700 or assessor@saccounty.net.

LAND INFORMATION

Thomas Brothers Map	300 H 7
Assessor Land Use Code	**IBABAA**
Filed Map Book/Page	S348001 - Final Map Book 348, Page 1
Filed Map Name	SUNRIDGE PARK PHASE II
Block Number	
Lot Number	11
Unit Number	
Approx. Parcel Area	246985 sq ft / 5.67 acres

ZONING

Zoning:	LC (SDSP) - LIMITED COMMERCIAL - SUNRIDGE SPECIFIC PLAN

OWNER INFORMATION

California Government Code Section 6254.21 states that “No state or local agency shall post the home address or telephone number of any elected or appointed official on the internet without first obtaining the written permission of that individual.” As the cost to collect and continuously update that information is prohibitive, the Assessor’s website does not display the Assessee name. It may be obtained by calling 916-875-0700 or by visiting the Assessor's Office at 3701 Power Inn Road, Suite 3000, in Sacramento.

Last Ownership Transfer Document Type	AGREEMENT
County Recorder's Document Number	Book 20040224, Page 1860
Event Date	Tue Feb 24 2004

PROPERTY BUILDING INFORMATION

No Property Characteristics are available for this property

Additional information regarding property building information can be obtained by contacting the Assessor's Office at 916-875-0700 or assessor@saccounty.net.

BUILDING PERMITS

Refer to the appropriate city jurisdiction agency for incorporated areas.

U.S. Environmental Protection Agency

MyProperty

Environmental Databases Search

The search of EPA's Facility Registry System did not locate any records for the search criteria provided below:

Search Criteria:

Street Address:	151 Poopenaut Court
City, State:	Rancho Cordova, CA
Query executed on:	12/16/2021 03:00 PM **EST**

Contact the appropriate state, tribal or local agencies if you seek additional information.

Disclaimer

The MyProperty reports are provided solely for informational purposes. They do not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. EPA maintains the application to enhance public access to environmental information. This service has continual data updates, and we will correct errors brought to our attention, as appropriate.

Appendix D

Environmental Data Resources, Inc. Database Report

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Sunridge Solar
4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Inquiry Number: 6532774.2s
June 11, 2021

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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Detail Map	3
Map Findings Summary	4
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Orphan Summary	51
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-8
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Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

4151 POOPENAUT CT ADDRESS OF ADJACENT SWITCHYARD
RANCHO CORDOVA, CA 95742

COORDINATES

Latitude (North):	38.5545230 - 38° 33' 16.28''
Longitude (West):	121.2065570 - 121° 12' 23.60''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	656276.2
UTM Y (Meters):	4268661.0
Elevation:	197 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5619686 BUFFALO CREEK, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140621
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
4151 POOPENAUT CT ADDRESS OF ADJACENT SWITCHYARD
RANCHO CORDOVA, CA 95742

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	SMUD CORDOVA SUBSTAT	4151 POOPENAUT CT OF	FINDS		TP
A2	SMUD CORDOVA SUBSTAT	4151 POOPENAUT CT	Sacramento Co. ML		TP
A3	SMUD CORDOVA SUBSTAT	4151 POOPENAUT CT OF	CERS		TP
4	INACTIVE RANCHO CORD	DOUGLAS ROAD	CPS-SLIC, CERS	Higher	1909, 0.362, North
B5	GENERAL ELECTRIC MED	3920 SECURITY PARK D	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-SQG,...	Higher	1983, 0.376, North
B6	GENERAL ELECTRIC MED	3920 SECURITY PARK	HWP, CERS	Higher	1983, 0.376, North
B7	GENERAL ELECTRIC MED	3920 SECURITY PARK	ENVIROSTOR	Higher	1983, 0.376, North
8	INACTIVE RANCHO CORD	DOUGLAS ROAD	CPS-SLIC	Higher	2007, 0.380, NNW
9	AZTECA CONSTRUCTION,	3871 SECURITY PARK D	LUST, Sacramento Co. CS, MLTS, Cortese, HIST...	Higher	2594, 0.491, North

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
SMUD CORDOVA SUBSTAT 4151 POOPENAUT CT OF RANCHO CORDOVA, CA 95742	FINDS Registry ID:: 110059751709	N/A
SMUD CORDOVA SUBSTAT 4151 POOPENAUT CT RANCHO CORDOVA, CA 95742	Sacramento Co. ML	N/A
SMUD CORDOVA SUBSTAT 4151 POOPENAUT CT OF RANCHO CORDOVA, CA 95742	CERS	N/A

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 RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

EXECUTIVE SUMMARY

Federal institutional controls / engineering controls registries

LUCIS ---- Land Use Control Information System
US ENG CONTROLS ---- Engineering Controls Sites List
US INST CONTROLS ---- Institutional Controls Sites List

Federal ERNS list

ERNS ---- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---- State Response Sites

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

State and tribal registered storage tank lists

FEMA UST ---- Underground Storage Tank Listing
UST ---- Active UST Facilities
AST ---- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

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
ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---- Open Dumps on Indian Land

EXECUTIVE SUMMARY

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
CERS HAZ WASTE	CERS HAZ WASTE
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks
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
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data

COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
ECHO ---- Enforcement & Compliance History Information
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
CUPA Listings ---- CUPA Resources List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System
HWTS ---- Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EDR Hist Auto---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were 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.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site list

SEMS-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.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 04/27/2021 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENERAL ELECTRIC MED Site ID: 0903397 EPA Id: CAD000819680	***3920 SECURITY PARK D***	***N 1/4 - 1/2 (0.376 mi.)***	***B5***	***13***

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENERAL ELECTRIC MED EPA ID:: CAD000819680	***3920 SECURITY PARK D***	***N 1/4 - 1/2 (0.376 mi.)***	***B5***	***13***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: 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.

A review of the RCRA-TSDF list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENERAL ELECTRIC MED EPA ID:: CAD000819680	***3920 SECURITY PARK D***	***N 1/4 - 1/2 (0.376 mi.)***	***B5***	***13***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: 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.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENERAL ELECTRIC MED Facility Id: 80001343	3920 SECURITY PARK	N 1/4 - 1/2 (0.376 mi.)	B7	44

Status: No Action Required

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 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AZTECA CONSTRUCTION,	***3871 SECURITY PARK D***	***N 1/4 - 1/2 (0.491 mi.)***	***9***	***46***
Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 03/08/2021 Status: Case Closed Global Id: T0606700442 Status: Completed - Case Closed				

CPS-SLIC: 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.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
INACTIVE RANCHO CORD	***DOUGLAS ROAD***	***N 1/4 - 1/2 (0.362 mi.)***	***4***	***12***
Database: CPS-SLIC, Date of Government Version: 03/08/2021 Facility Status: Open - Remediation Global Id: T10000003681				
INACTIVE RANCHO CORD	DOUGLAS ROAD	NNW 1/4 - 1/2 (0.380 mi.)	8	45
Database: CPS-SLIC, Date of Government Version: 03/08/2021 Facility Status: Open - Remediation Global Id: T10000002985				

Sacramento Co. CS: List of sites where unauthorized releases of potentially hazardous materials have occurred.

A review of the Sacramento Co. CS list, as provided by EDR, and dated 02/18/2020 has revealed that there is 1 Sacramento Co. CS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AZTECA CONSTRUCTION,	***3871 SECURITY PARK D***	***N 1/4 - 1/2 (0.491 mi.)***	***9***	***46***
Facility Id: RO0001055 Date Closed: 02/24/1997				

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

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 (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AZTECA CONSTRUCTION,	***3871 SECURITY PARK D***	***N 1/4 - 1/2 (0.491 mi.)***	***9***	***46***
Cleanup Status: COMPLETED - CASE CLOSED				

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 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AZTECA CONSTRUCTION,	***3871 SECURITY PARK D***	***N 1/4 - 1/2 (0.491 mi.)***	***9***	***46***
Reg Id: 340527				

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

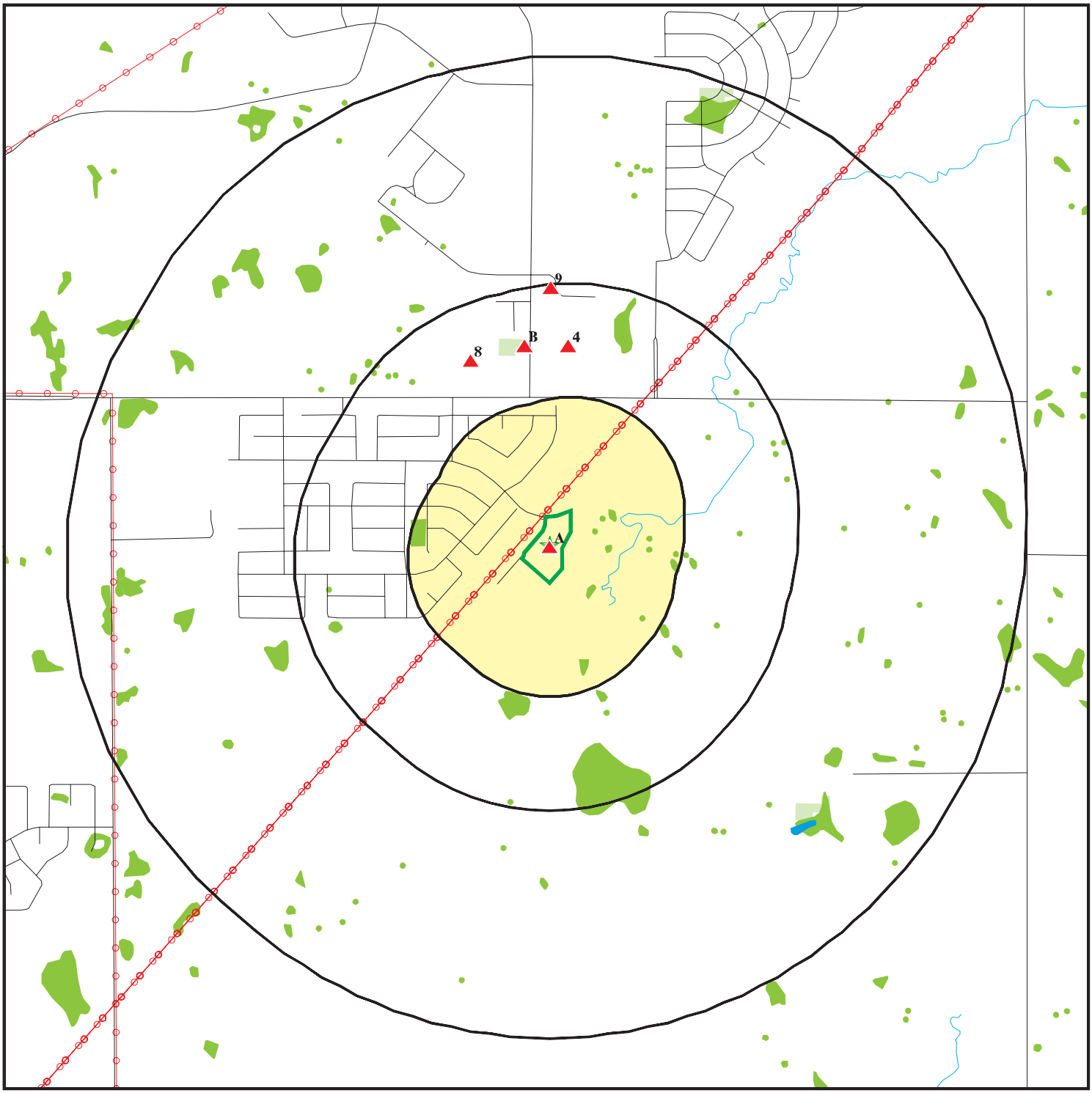
A review of the HWP list, as provided by EDR, and dated 02/16/2021 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GENERAL ELECTRIC MED	***3920 SECURITY PARK***	***N 1/4 - 1/2 (0.376 mi.)***	***B6***	***38***
EPA ID: CAD000819680				
Cleanup Status: CLOSED				

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 6532774.2S



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

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Sunridge Solar	CLIENT:	EA Engineering Science & Tech.
ADDRESS:	4151 Poopenaut CT Address of Adjacent Switchyard Rancho Cordova CA 95742	CONTACT:	Denise Pereira
LAT/LONG:	38.554523 / 121.206557	INQUIRY #:	6532774.2s
		DATE:	June 11, 2021 1:48 pm

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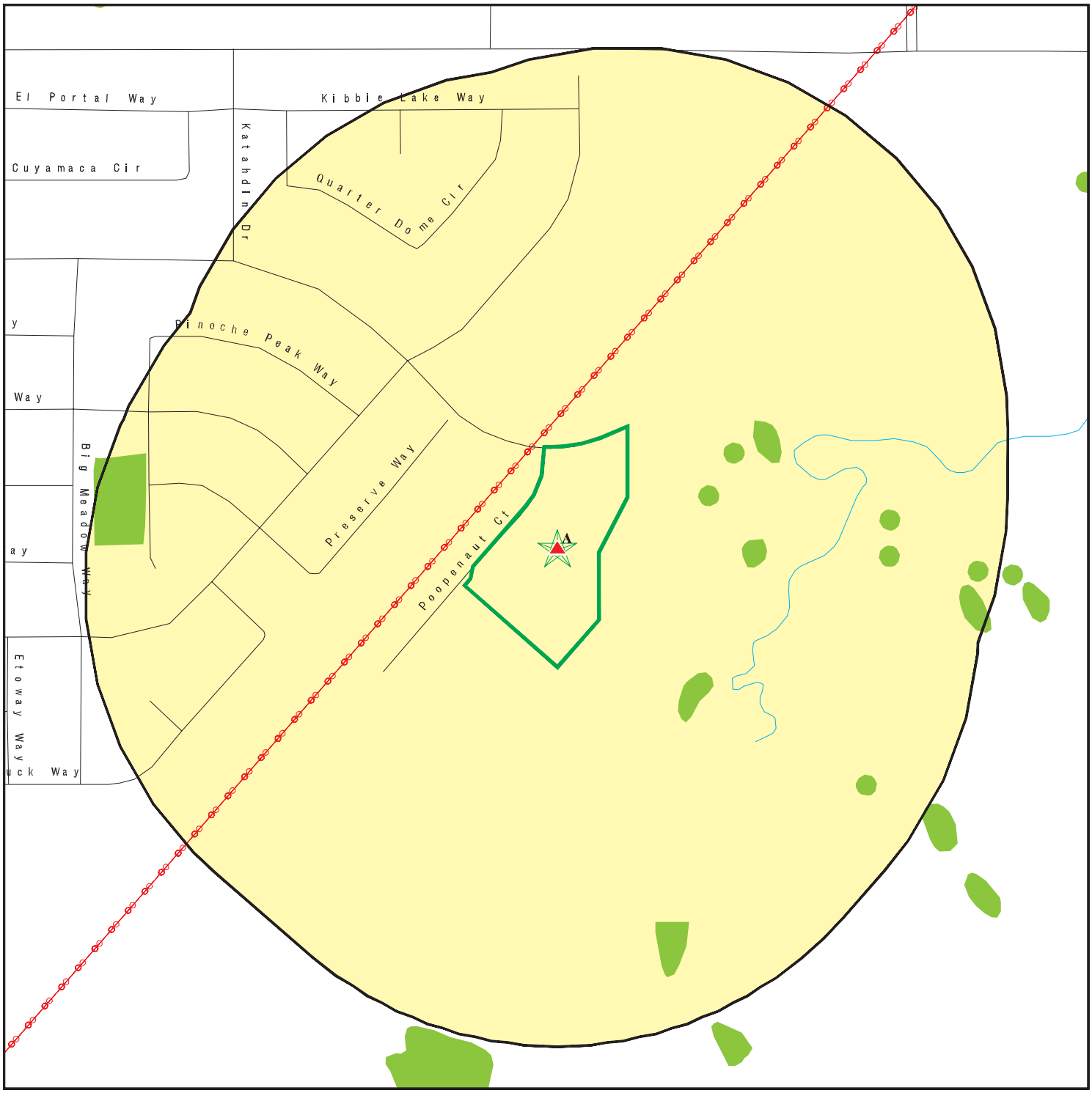
DETAIL MAP - 6532774.2S



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
Power transmission lines
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Sunridge Solar	CLIENT:	EA Engineering Science & Tech.
ADDRESS:	4151 Poopenaut CT Address of Adjacent Switchyard Rancho Cordova CA 95742	CONTACT:	Denise Pereira
LAT/LONG:	38.554523 / 121.206557	INQUIRY #:	6532774.2s
		DATE:	June 11, 2021 1:50 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	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	1	0	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	1	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	0	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	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	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	2	NR	NR	2
Sacramento Co. CS	0.500		0	0	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	1	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
Sacramento Co. ML	0.250	1	0	0	NR	NR	NR	1
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP	1	NR	NR	NR	NR	NR	1
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		3	0	0	11	0	0	14

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

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **SMUD CORDOVA SUBSTATION** **FINDS** **1016874618**
Target **4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS D** **N/A**
Property **RANCHO CORDOVA, CA 95742**

Site 1 of 3 in cluster A

Actual: **197 ft.**

FINDS:
Registry ID: 110059751709

Click Here:

Environmental Interest/Information System:
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A2 **SMUD CORDOVA SUBSTATION** **Sacramento Co. ML** **S118939204**
Target **4151 POOPENAUT CT** **N/A**
Property **RANCHO CORDOVA, CA 95742**

Site 2 of 3 in cluster A

Actual: **197 ft.**

Sacramento Co. ML:

Name:	SMUD CORDOVA SUBSTATION
Address:	4151 POOPENAUT CT
City,State,Zip:	RANCHO CORDOVA, CA 95742
Facility Id:	Not reported
Facility Status:	Not reported
FD:	Not reported
Billing Codes BP:	A
Billing Codes UST:	Not reported
WG Bill Code:	Not reported
Target Property Bill Cod:	Not reported
Food Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
Hazmat Date BP Received:	Not reported
UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	Not reported
UST Tank Test Date:	Not reported
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

A3 **SMUD CORDOVA SUBSTATION** **CERS** **S121747115**
Target **4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS DR** **N/A**
Property **RANCHO CORDOVA, CA 95742**

Site 3 of 3 in cluster A

Actual: **197 ft.**

CERS:

Name:	SMUD CORDOVA SUBSTATION
Address:	4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS DR
City,State,Zip:	RANCHO CORDOVA, CA 95742
Site ID:	154361

SMUD CORDOVA SUBSTATION (Continued) **S121747115**

CERS ID: 10476253
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-20-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations observed at time of inspection.
Eval Division: Sacramento County Env Management Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-31-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations observed during the time of inspection
Eval Division: Sacramento County Env Management Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-30-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations observed today. Inspection report emailed to Suzette Villanueva (suzette.villanueva@smud.org) due to COVID-19
Eval Division: Sacramento County Env Management Department
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Legal Owner
Entity Name: Sacramento Municipal Utility District (SMUD)
Entity Title: Not reported
Affiliation Address: P.O. Box 15830
Affiliation City: Sacramento
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95852-1830
Affiliation Phone: (916) 452-3211

Affiliation Type Desc: Operator
Entity Name: Sacramento Municipal Utility District (SMUD)
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (916) 452-3211

Affiliation Type Desc: Parent Corporation
Entity Name: Sacramento Municipal Utility District (SMUD)
Entity Title: Not reported
Affiliation Address: Not reported

SMUD CORDOVA SUBSTATION (Continued) **S121747115**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Suzette Villanueva
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Suzette Villanueva
Entity Title:	Not reported
Affiliation Address:	P.O. Box 15830
Affiliation City:	Sacramento
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95852-1830
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	P.O. Box 15830
Affiliation City:	Sacramento
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95852-1830
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Suzette Villanueva
Entity Title:	Environmental Management Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Sacramento County Environmental Management Departm
Entity Title:	Not reported
Affiliation Address:	11080 WHITE ROCK ROAD
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95670
Affiliation Phone:	(916) 875-8550

4
North
1/4-1/2
0.362 mi.
1909 ft.

INACTIVE RANCHO CORDOVA TEST SITE - IRCTS - ADMINI
DOUGLAS ROAD
RANCHO CORDOVA, CA 95642

CPS-SLIC
CERS

S111760560
N/A

Relative:
Higher

Actual:
209 ft.

CPS-SLIC:

Name:	INACTIVE RANCHO CORDOVA TEST SITE - IRCTS - ADMINISTRATION AREA
Address:	DOUGLAS ROAD
City,State,Zip:	RANCHO CORDOVA, CA 95642
Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	04/23/2012
Global Id:	T10000003681
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	38.5609183946954
Longitude:	-121.205806732178
Case Type:	Cleanup Program Site
Case Worker:	AMM
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply, Soil, Soil Vapor, Well used for drinking water supply
Potential Contaminants of Concern:	Trichloroethylene (TCE), Copper, Lead
Site History:	Surface soils have been remediated to cleanup levels specified by DTSC. Soil vapor extraction system has been shutdown. Groundwater extraction sytsem has been implemented and is controlling the downgradient migration of he plume. The groundwater is being covered under the site listed as IRCTS Southern Groundwater.

Click here to access the California GeoTracker records for this facility:

CERS:

Name:	INACTIVE RANCHO CORDOVA TEST SITE - IRCTS - ADMINISTRATION AREA
Address:	DOUGLAS ROAD
City,State,Zip:	RANCHO CORDOVA, CA 95642
Site ID:	245042
CERS ID:	T10000003681
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	ALEX M. MACDONALD - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title:	Not reported
Affiliation Address:	11020 SUN CENTER DRIVE #200
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9164644625

B5
North
1/4-1/2
0.376 mi.
1983 ft.

Relative:
Higher

Actual:
208 ft.

GENERAL ELECTRIC MEDICAL SYSTEMS
3920 SECURITY PARK DR
RANCHO CORDOVA, CA 95742

Site 1 of 3 in cluster B

SEMS-ARCHIVE
CORRACTS
RCRA-TSDF
RCRA-SQG
FINDS
ECHO
HAZNET
HWTS

1000214137
CAD000819680

SEMS Archive:

Site ID:	0903397
EPA ID:	CAD000819680
Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Address:	3920 SECURITY PARK
Address 2:	Not reported
City,State,Zip:	RANCHO CORDOVA, CA 95670
Cong District:	03
FIPS Code:	06067
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Deferred to RCRA (Subtitle C)

SEMS Archive Detail:

Region:	09
Site ID:	0903397
EPA ID:	CAD000819680
Site Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
NPL:	N
FF:	N
OU:	00
Action Code:	VS
Action Name:	ARCH SITE
SEQ:	1
Start Date:	Not reported
Finish Date:	1996-01-23 05:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf In-Hse

Region:	09
Site ID:	0903397
EPA ID:	CAD000819680
Site Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
NPL:	N
FF:	N
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	Not reported
Finish Date:	1991-09-16 04:00:00
Qual:	D
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0903397
EPA ID:	CAD000819680
Site Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
NPL:	N
FF:	N
OU:	00

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1991-03-01 05:00:00
Finish Date: 1991-03-01 05:00:00
Qual: Not reported
Current Action Lead: EPA Perf

CORRACTS:
Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: LEAD AGENCY DETERMINATION
Actual Date: 00:00.0
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: RFA COMPLETED-ASSESSMENT WAS A RFA
Actual Date: 00:00.0
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: REEVALUATE IN FY
Actual Date: Not reported
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: PA OR CERCLA INSPECTION
Actual Date: 00:00.0
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: NCAPS RANKING/PRIORITY
Actual Date: 00:00.0
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK DR
Address 2: Not reported
EPA ID: CAD000819680
Area Name: ENTIRE FACILITY
Corrective Action: CA PRIORITIZATION-MEDIUM CA PRIORITY
Actual Date: 00:00.0
Air Release Indicator: Not reported
Groundwater Release Indicator: Not reported
Soil Release Indicator: Not reported
Surface Water Release Indicator: Not reported

RCRA-SQG:
Date Form Received by Agency: 1996-09-01 00:00:00.0
Handler Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Handler Address: 3920 SECURITY PARK DR
Handler City,State,Zip: RANCHO CORDOVA, CA 95742
EPA ID: CAD000819680
Contact Name: Not reported
Contact Address: Not reported
Contact City,State,Zip: Not reported
Contact Telephone: Not reported
Contact Fax: Not reported
Contact Email: Not reported
Contact Title: Not reported
EPA Region: 09
Land Type: Private
Federal Waste Generator Description: Small Quantity Generator
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Handler Activities
State District Owner: CA
State District: 1
Mailing Address: 3920 SECURITY PARK DR
Mailing City,State,Zip: RANCHO CORDOVA, CA 95742
Owner Name: Not reported
Owner Type: Not reported
Operator Name: GENERAL ELECTRIC CO
Operator Type: Private
Short-Term Generator Activity: No
Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility Activity: No

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Storage, Treatment
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Storage, Treatment
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	Yes
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	Yes
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	Yes
Corrective Action Priority Ranking:	Medium
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-06-27 03:22:27.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GENERAL ELECTRIC CO
Legal Status:	Private
Date Became Current:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Date Ended Current:	Not reported
Owner/Operator Address:	3920 SECURITY PARK
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	916-361-4202
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	MCDONNELL DOUGLAS CORP
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	11505 DOUGLAS RD
Owner/Operator City,State,Zip:	RANCHO CORDOVA, CA 95670
Owner/Operator Telephone:	916-351-0550
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1996-09-01 00:00:00.0
Handler Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	1996-02-14 00:00:00.0
Handler Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

Facility Has Received Notices of Violation:

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Financial Requirements
Date Violation was Determined:	1988-05-19 00:00:00.0
Actual Return to Compliance Date:	1988-07-23 00:00:00.0
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	1988-05-26 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	R9
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	R9

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 1987-12-22 00:00:00.0
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: FINANCIAL RECORD REVIEW

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1988-05-19 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	1988-07-23 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1988-01-19 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1989-02-21 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1991-05-30 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	1989-02-22 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOCUSED COMPLIANCE INSPECTION
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

RCRA-SQG:

Date Form Received by Agency:	1996-09-01 00:00:00.0
Handler Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Handler Address:	3920 SECURITY PARK DR
Handler City,State,Zip:	RANCHO CORDOVA, CA 95742
EPA ID:	CAD000819680
Contact Name:	Not reported
Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Contact Telephone:	Not reported
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	CA
State District:	1
Mailing Address:	3920 SECURITY PARK DR
Mailing City,State,Zip:	RANCHO CORDOVA, CA 95742
Owner Name:	Not reported
Owner Type:	Not reported
Operator Name:	GENERAL ELECTRIC CO
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Storage, Treatment
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Storage, Treatment
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

202 GPRA Corrective Action Baseline:	Yes
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	Yes
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	Yes
Corrective Action Priority Ranking:	Medium
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-06-27 03:22:27.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GENERAL ELECTRIC CO
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3920 SECURITY PARK
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	916-361-4202
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	MCDONNELL DOUGLAS CORP
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	11505 DOUGLAS RD
Owner/Operator City,State,Zip:	RANCHO CORDOVA, CA 95670
Owner/Operator Telephone:	916-351-0550
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1996-09-01 00:00:00.0
Handler Name:	GENERAL ELECTRIC MEDICAL SYSTEMS

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Federal Waste Generator Description: Small Quantity Generator
State District Owner: CA
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1996-02-14 00:00:00.0
Handler Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Federal Waste Generator Description: Large Quantity Generator
State District Owner: CA
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violation:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Financial Requirements
Date Violation was Determined: 1988-05-19 00:00:00.0
Actual Return to Compliance Date: 1988-07-23 00:00:00.0
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 1988-05-26 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: R9
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 1987-12-22 00:00:00.0
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier: R9
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 1988-05-19 00:00:00.0
Evaluation Responsible Agency: State
Found Violation: Yes
Evaluation Type Description: FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier: R9
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 1988-07-23 00:00:00.0
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 1988-01-19 00:00:00.0

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1989-02-21 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1991-05-30 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1989-02-22 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOCUSED COMPLIANCE INSPECTION
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

FINDS:
Registry ID: 110009552607

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
Registry ID: 110000609173

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000214137
Registry ID:	110009552607
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110009552607
Name:	AUTOMOTIVE IMPORTING MFG INC
Address:	3920 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95742

Envid:	1000214137
Registry ID:	110000609173
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110000609173
Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Address:	3920 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95742

HAZNET:

Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Address:	3920 SECURITY PARK
Address 2:	Not reported
City,State,Zip:	RANCHO CORDOVA, CA 956700000
Contact:	NON-DELIVERABLE 4/94 FEE FORM
Telephone:	9163614200
Mailing Name:	Not reported
Mailing Address:	3920 SECURITY PARK

Year:	1996
Gepaid:	CAD000819680
TSD EPA ID:	WAD000812909
CA Waste Code:	151 - Asbestos containing waste
Disposal Method:	-
Tons:	2.25

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Year:	1996
Gepaid:	CAD000819680
TSD EPA ID:	CA0000084517
CA Waste Code:	213 - Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	H01 - Transfer Station
Tons:	1.6262

Year:	1996
Gepaid:	CAD000819680
TSD EPA ID:	WAD000812909
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	-
Tons:	1.9836

Year:	1995
Gepaid:	CAD000819680
TSD EPA ID:	WAD000812909
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	-
Tons:	0.7129

Year:	1993
Gepaid:	CAD000819680
TSD EPA ID:	CAT000613950
CA Waste Code:	741 - Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	H01 - Transfer Station
Tons:	0.0375

Year:	1992
Gepaid:	CAD000819680
TSD EPA ID:	CAD083166728
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	R01 - Recycler
Tons:	7.506

Year:	1992
Gepaid:	CAD000819680
TSD EPA ID:	CAT000613950
CA Waste Code:	741 - Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	H01 - Transfer Station
Tons:	0.313

Year:	1989
Gepaid:	CAD000819680
TSD EPA ID:	UTD991301748
CA Waste Code:	341 - Organic liquids (nonsolvents) with halogens
Disposal Method:	03 -
Tons:	0.2

Year:	1989
Gepaid:	CAD000819680
TSD EPA ID:	UTD991301748
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	07 -
Tons:	0.4

Year: 1988

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Gepaid:	CAD000819680
TSD EPA ID:	UTD991301748
CA Waste Code:	791 - Liquids with pH <= 2
Disposal Method:	D80 - Disposal, Land Fill
Tons:	0.6255

Click this hyperlink while viewing on your computer to access
21 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	1993
Gen EPA ID:	CAD000819680
Shipment Date:	19930319
Creation Date:	9/1/1995 0:00:00
Receipt Date:	19930319
Manifest ID:	92536588
Trans EPA ID:	ILD051060408
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613950
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT000613950
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0375
Waste Quantity:	9
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1996
Gen EPA ID:	CAD000819680
Shipment Date:	19960808
Creation Date:	6/2/1997 0:00:00
Receipt Date:	19960809
Manifest ID:	96494294
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	213 - Hydrocarbon solvents (benzene, hexane, Stoddard, etc.
RCRA Code:	D039

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Meth Code:	H01 - Transfer Station
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960802
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19960805
Manifest ID:	96104586
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	213 - Hydrocarbon solvents (benzene, hexane, Stoddard, etc.
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4461
Waste Quantity:	107
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960725
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19960726
Manifest ID:	96107953
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	213 - Hydrocarbon solvents (benzene, hexane, Stoddard, etc.
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4295
Waste Quantity:	103
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Shipment Date:	19960725
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960820
Manifest ID:	96001807
Trans EPA ID:	CAD063547996
Trans Name:	Not reported
Trans 2 EPA ID:	WAL000001743
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD000812909
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	151 - Asbestos-containing waste
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	2.25
Waste Quantity:	4500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960725
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960820
Manifest ID:	96001807
Trans EPA ID:	CAD063547996
Trans Name:	Not reported
Trans 2 EPA ID:	WAL000001743
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD000812909
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	1.9836
Waste Quantity:	1800
Quantity Unit:	K
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960719
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19960722
Manifest ID:	96106500
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	213 - Hydrocarbon solvents (benzene, hexane, Stoddard, etc.
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.7506
Waste Quantity:	180
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1995
Gen EPA ID:	CAD000819680
Shipment Date:	19950424
Creation Date:	3/29/1996 0:00:00
Receipt Date:	19950428
Manifest ID:	93729843
Trans EPA ID:	CAD982495608
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD000812909
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.7129
Waste Quantity:	647
Quantity Unit:	K
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Address:	3920 SECURITY PARK
Address 2:	Not reported
City,State,Zip:	RANCHO CORDOVA, CA 956700000
EPA ID:	CAD000819680
Inactive Date:	04/30/1994
Create Date:	07/23/1982
Last Act Date:	09/14/2004
Mailing Name:	Not reported
Mailing Address:	3920 SECURITY PARK
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RANCHO CORDOVA, CA 956700000

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **1000214137**

Owner Name:	MCDONNEL DOUGLAS CORPORATION
Owner Address:	--
Owner Address 2:	Not reported
Owner City,State,Zip:	--, 99 --
Contact Name:	NON-DELIVERABLE 4/94 FEE FORM
Contact Address:	--
Contact Address 2:	Not reported
City,State,Zip:	RANCHO CORDOVA, CA 956700000

NAICS:

EPA ID:	CAD000819680
Create Date:	2002-03-14 16:36:26.000
NAICS Code:	3342
NAICS Description:	Communications Equipment Manufacturing
Issued EPA ID Date:	1982-07-23 00:00:00
Inactive Date:	1994-04-30 00:00:00
Facility Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Facility Address:	3920 SECURITY PARK
Facility Address 2:	Not reported
Facility City:	RANCHO CORDOVA
Facility County:	Not reported
Facility State:	CA
Facility Zip:	956700000

B6 **GENERAL ELECTRIC MEDICAL SYSTEMS** **HWP S111865965**
North **3920 SECURITY PARK** **CERS N/A**
1/4-1/2 **RANCHO CORDOVA, CA 95670**
0.376 mi.
1983 ft. **Site 2 of 3 in cluster B**

Relative:
Higher

Actual:
208 ft.

HWP:

EPA ID:	CAD000819680
Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Address:	3920 SECURITY PARK
Cleanup Status:	CLOSED
Latitude:	38.56099
Longitude:	-121.2081
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Supervisor:	Not reported
Site Code:	100393
Senate District:	08
Assembly District:	08
Public Information Officer:	Not reported
Commercial Offsite Facility Types:	Not reported
Quarterly Update:	The former General Electric Company Facility (facility) occupied two buildings within an industrial park named Security Park. The industrial park formerly known as the Administration Area is part of a 4,000-acre site called the Inactive Rancho Cordova Test Site (IRCTS). GE Systems began operation at 3920 Security Park Drive in Rancho Cordova in 1979. In late 1980, GE installed a transducer fabrication laboratory at the site. The laboratory was used to fabricate transducers for evaluation of transducer design and electronic interfacing and for development of a production process. In 1980, GE Medical Systems was given authorization by the DHS to operate a wastewater treatment system and discharge the treated wastewater to the facility's septic system and leach field. The treatment system was

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

used to process all rinse water from the plating operations and all other wastes from two chemical fume hoods. In 1982, GE Medical Systems moved the wastewater treatment system from 3920 Security Park Drive to neighboring 3890 Security Park Drive and began discharging the treated wastewater to that building's septic system. Adjacent to this septic tank was a fenced hazardous waste storage area used to store such wastes as cyanides, acids, alkalis, lead oxides, solvents, and resins. DHS issued the final Hazardous Waste Facility Permit for the facility on June 29, 1987. The permit authorized continued treatment and storage of wastes generated on site. GE submitted a Closure Plan (CP) for the facility on November 30, 1987. The CP, with modifications, was approved by DHS on September 2, 1988 and by the US.EPA on October 21, 1988. GE conducted the closure activities. On July 17, 1990, a final Closure Certification Report was submitted to DHS. DHS issued approval of the Closure Certification for the GE facility on June 28, 1991. ps 12/10/07

Project Manager Lead: Not reported
Project Manager: Not reported
Permit Type: RCRA
Permit Effective Date: Not reported
Permit Expiration Date: Not reported
Calenviroscreen Score: 46-50%
Total Planned Hours: Not reported
Total Planned Amount: Not reported
Total Actual Hours: Not reported

Activities:

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00
Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units. Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 02/15/1982

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units.
Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 06/29/1987

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1988-10-21 00:00:00
Type: RCRA
Title Description: Permit withdrawal request - OP180FC
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED
Actual Date: 11/30/1987

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00
Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units.
Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 06/10/1982

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00
Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units. Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/19/1980

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1988-10-21 00:00:00
Type: RCRA
Title Description: Permit withdrawal request - OP180FC
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/19/1980

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00
Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units. Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 06/29/1992

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1987-06-29 00:00:00
Type: RCRA
Title Description: Initial Permit - Protective Filer must close all waste handling units. Units - Contain1, Tanktrt1 and Tanktrt
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 06/29/1987

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Status: CLOSED
Activity Type: New Operating Permit
Permit Being Renewed: Not reported
Permit Being Modified: Not reported
Final Date: 1988-10-21 00:00:00
Type: RCRA
Title Description: Permit withdrawal request - OP180FC
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED
Actual Date: 10/21/1988

Closure:
EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported
Facility Size: Not reported
Facility Status: CLOSED
Activity Type: Closure Final
Final Date: Not reported
Type: RCRA
Title Description: Closure1 - Units Contain1 and Tanktrt1
Due Date: Not reported
Comments: Not reported
Unit Names: CONTAIN1, TANKTRT, TANKTRT1
Event Description: Closure Final - CLOSURE PLAN APPROVED
Actual Date: 10/21/1988

EPA ID: CAD000819680
Facility Type: Historical - Non-Operating
Facility Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager: Not reported
Project Manager Lead: Not reported
Supervisor: Not reported

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

Facility Size:	Not reported
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	Closure1 - Units Contain1 and Tanktrt1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1, TANKTRT, TANKTRT1
Event Description:	Closure Final - CLOSURE PLAN RECEIVED
Actual Date:	11/30/1987

EPA ID:	CAD000819680
Facility Type:	Historical - Non-Operating
Facility Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Facility Size:	Not reported
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	Closure1 - Units Contain1 and Tanktrt1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1, TANKTRT, TANKTRT1
Event Description:	Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date:	06/28/1991

EPA ID:	CAD000819680
Facility Type:	Historical - Non-Operating
Facility Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Facility Size:	Not reported
Facility Status:	CLOSED
Activity Type:	Closure Final
Final Date:	Not reported
Type:	RCRA
Title Description:	Closure1 - Units Contain1 and Tanktrt1
Due Date:	Not reported
Comments:	Not reported
Unit Names:	CONTAIN1, TANKTRT, TANKTRT1
Event Description:	Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date:	12/22/1988

Alias:

EPA ID:	CAD000819680
Facility Type:	Historical - Non-Operating
Facility Name:	GENERAL ELECTRIC MEDICAL SYSTEMS
Facility Status:	CLOSED
Project Manager:	Not reported
Project Manager Lead:	Not reported
Supervisor:	Not reported
Alias Type:	Project Code (Site Code)

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S111865965**

Alias: 100393

CERS:
Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK
City,State,Zip: RANCHO CORDOVA, CA 956700000
Site ID: 194650
CERS ID: CAD000819680
CERS Description: Hazardous Waste

Affiliation:
Affiliation Type Desc: Facility Owner
Entity Name: MCDONNEL DOUGLAS CORPORATION
Entity Title: Not reported
Affiliation Address: --
Affiliation City: --
Affiliation State: 99
Affiliation Country: Not reported
Affiliation Zip: --
Affiliation Phone: 0000000000

Affiliation Type Desc: Facility Contact
Entity Name: NON-DELIVERABLE 4/94 FEE FORM
Entity Title: Not reported
Affiliation Address: --
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 956700000
Affiliation Phone: 9163614200

B7 **GENERAL ELECTRIC MEDICAL SYSTEMS** **ENVIROSTOR** **S118757512**
North **3920 SECURITY PARK** **N/A**
1/4-1/2 **RANCHO CORDOVA, CA 95670**
0.376 mi.
1983 ft. **Site 3 of 3 in cluster B**

Relative:
Higher

Actual:
208 ft.

ENVIROSTOR:
Name: GENERAL ELECTRIC MEDICAL SYSTEMS
Address: 3920 SECURITY PARK
City,State,Zip: RANCHO CORDOVA, CA 956700000
Facility ID: 80001343
Status: No Action Required
Status Date: 09/02/2009
Site Code: 100393
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0.25
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: WM
Program Manager: Paul Ruffin
Supervisor: Rizgar Ghazi
Division Branch: Cleanup Sacramento
Assembly: 08
Senate: 08

GENERAL ELECTRIC MEDICAL SYSTEMS (Continued) **S118757512**

Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 38.56099
Longitude: -121.2081
APN: NONE SPECIFIED
Past Use: AEROSPACE ROCKET TESTING/LAUNCH, MANUFACTURING - ELECTRONIC
Potential COC: Trichloroethylene (TCE
Confirmed COC: Trichloroethylene (TCE
Potential Description: SOIL
Alias Name: CAD000819680
Alias Type: EPA Identification Number
Alias Name: 100393
Alias Type: Project Code (Site Code)
Alias Name: 80001343
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 08/31/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 09/11/1998
Comments: Completed in August 1998

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 07/30/2009
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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8 **INACTIVE RANCHO CORDOVA TEST SITE - INACTIVE RANCH** **CPS-SLIC** **S110819459**
NNW **DOUGLAS ROAD** **N/A**
1/4-1/2 **RANCHO CORDOVA, CA 95670**
0.380 mi.
2007 ft.

Relative:
Higher

Actual:
203 ft.

CPS-SLIC:
Name: INACTIVE RANCHO CORDOVA TEST SITE - INACTIVE RANCHO CORDOVA TEST SITE - SOUTHERN GROUNDWATER CONTAMINATION
Address: DOUGLAS ROAD
City,State,Zip: RANCHO CORDOVA, CA 95670

INACTIVE RANCHO CORDOVA TEST SITE - INACTIVE RANCHO CORDOVA (Continued) **S110819459**

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	04/15/2011
Global Id:	T10000002985
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	38.5604485885111
Longitude:	-121.209754943848
Case Type:	Cleanup Program Site
Case Worker:	AMM
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Chlorinated Hydrocarbons, Trichloroethylene (TCE), Perchlorate
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

9
North
1/4-1/2
0.491 mi.
2594 ft.

Relative:
Higher

Actual:
213 ft.

AZTECA CONSTRUCTION, INC.
3871 SECURITY PARK DRIVE
RANCHO CORDOVA, CA 95742

LUST **1001494817**
Sacramento Co. CS **N/A**
MLTS
Cortese
HIST CORTESE
Sacramento Co. ML
CERS

LUST:

Name:	AZTECA CONSTRUCTION
Address:	3871 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95670
Lead Agency:	SACRAMENTO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606700442
Global Id:	T0606700442
Latitude:	38.562778
Longitude:	-121.206456
Status:	Completed - Case Closed
Status Date:	02/24/1997
Case Worker:	Not reported
RB Case Number:	340527
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	B311
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0606700442
Contact Type:	Regional Board Caseworker
Contact Name:	VERA FISCHER
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	vera.fischer@waterboards.ca.gov
Phone Number:	Not reported

AZTECA CONSTRUCTION, INC. (Continued) **1001494817**

LUST:
Global Id: T0606700442
Action Type: Other
Date: 11/20/1989
Action: Leak Discovery

Global Id: T0606700442
Action Type: Other
Date: 03/12/1991
Action: Leak Reported

Global Id: T0606700442
Action Type: ENFORCEMENT
Date: 02/16/1993
Action: * No Action

Global Id: T0606700442
Action Type: ENFORCEMENT
Date: 02/16/1993
Action: * Historical Enforcement

LUST:
Global Id: T0606700442
Status: Open - Case Begin Date
Status Date: 12/01/1988

Global Id: T0606700442
Status: Open - Site Assessment
Status Date: 12/01/1988

Global Id: T0606700442
Status: Open - Remediation
Status Date: 12/01/1989

Global Id: T0606700442
Status: Open - Remediation
Status Date: 09/13/1990

Global Id: T0606700442
Status: Completed - Case Closed
Status Date: 02/24/1997

LUST REG 5:
Name: AZTECA CONSTRUCTION
Address: 3871 SECURITY PARK DR
City: RANCHO CORDOVA
Region: 5
Status: Case Closed
Case Number: 340527
Case Type: Soil only
Substance: DIESEL
Staff Initials: VJF
Lead Agency: Local
Program: LUST
MTBE Code: N/A

AZTECA CONSTRUCTION, INC. (Continued) **1001494817**

Sacramento Co. CS:

Name:	AZTECA
Address:	3871 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA
State Site Number:	B311
Lead Staff:	Marcus, B.
Lead Agency:	HM
Remedial Action Taken:	YE, S
Substance:	Diesel
Date Reported:	12/01/1988
Facility Id:	RO0001055
Case Type:	Soil only
Case Closed:	Y
Date Closed:	**02/24/1997**
Case Type:	**Soil only affected**
Substance:	**Diesel**

MLTS:

Contact Name:	DAVID BIEBER
Contact Phone:	916-351-0202
Institution Code:	27602
Dock Number:	3034827
License Number:	04-27602-01
Lic. Expiration Date:	2008-11-30 00:00:00
Licensee:	AZTECA CONSTRUCTION, INC.
Licensee Line 2:	Not reported
License Contact Street 1:	3871 SECURITY PARK DRIVE
License Contact Street 2:	Not reported
License Contact Street 3:	Not reported
License Contact City:	RANCHO CORDOVA
License Contact State:	CA
License Contact Zip:	957426920
License Date:	2001-05-02 00:00:00
First License Date:	1998-11-25 00:00:00
Status:	Retired
Agency Code:	NRC
Authorized States:	Not reported
Authorized for Burial:	N
Approved for Storage Flag:	N
Approved for Redistrib Flag:	N
Approved for Incineration:	N
Last Inspection Date:	1999-03-01 00:00:00
Date of Nest Inspection:	2002-03-01 00:00:00
Primary RSO Full Name:	RAFAEL
Inspection Status:	Draft

CORTESE:

Name:	AZTECA CONSTRUCTION
Address:	3871 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95670
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0606700442
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported

AZTECA CONSTRUCTION, INC. (Continued) **1001494817**

Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	AZTECA CONSTRUCTION
edr_fadd1:	3871 SECURITY PARK
City,State,Zip:	RANCHO CORDOVA, CA 95742
Region:	CORTESE
Facility County Code:	34
Reg By:	LTNKA
Reg Id:	340527

Sacramento Co. ML:

Name:	AT&T CORP - UC1UB
Address:	3871 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95742
Facility Id:	Not reported
Facility Status:	Not reported
FD:	Not reported
Billing Codes BP:	A
Billing Codes UST:	Not reported
WG Bill Code:	Not reported
Target Property Bill Cod:	Not reported
Food Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
Hazmat Date BP Received:	Not reported
UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	Not reported
UST Tank Test Date:	Not reported
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

Name:	AZTECA CONSTRUCTION
Address:	3871 SECURITY PARK
City,State,Zip:	RANCHO CORDOVA, CA 95742
Facility Id:	Not reported
Facility Status:	Inactive. Included on a listing no longer updated.

AZTECA CONSTRUCTION, INC. (Continued) **1001494817**

FD:	S
Billing Codes BP:	Out of Business
Billing Codes UST:	No Tanks
WG Bill Code:	Oil Changed by Outside Company-No Fee
Target Property Bill Cod:	51
Food Bill Code:	51
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	05/26/1993
Hazmat Date BP Received:	04/17/1996
UST Permit Dt:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Number of Tanks:	0
UST Tank Test Date:	05/26/1993
SIC Code:	Not reported
Tier Permitting:	Not reported
AST Bill Code:	Not reported
CALARP Bill Code:	Not reported

CERS:

Name:	AZTECA CONSTRUCTION
Address:	3871 SECURITY PARK DR
City,State,Zip:	RANCHO CORDOVA, CA 95670
Site ID:	209731
CERS ID:	T0606700442
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	VERA FISCHER - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title:	Not reported
Affiliation Address:	11020 SUN CENTER DRIVE #200
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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

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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 03/30/2021
Next Scheduled EDR Contact: 07/12/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/26/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/26/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
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: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
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: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 83

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

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: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 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 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 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 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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

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: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
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: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

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: 03/22/2021
Next Scheduled EDR Contact: 07/05/2021
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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/15/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
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: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
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: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
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: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/29/2021
Next Scheduled EDR Contact: 08/09/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/22/2021
Next Scheduled EDR Contact: 09/06/2021
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: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
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: 12/16/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/24/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)
Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/30/2021
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: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
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: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
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: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
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: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/17/2021
Next Scheduled EDR Contact: 08/30/2021
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: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
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: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/13/2021
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: 01/22/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
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: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 08/02/2021
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: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80
Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
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: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
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: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
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: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
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: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/27/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/26/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
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: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/02/2021
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
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: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
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: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
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: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
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: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/09/2021
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
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: 01/05/2021
Date Data Arrived at EDR: 01/05/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
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: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
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: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55
Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29
Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3
Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11
Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
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 Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/17/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/21/2020
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/08/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/26/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 06/07/2021
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/06/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
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: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SUNRIDGE SOLAR
4151 POOPENAUT CT ADDRESS OF ADJACENT SWITCHYARD
RANCHO CORDOVA, CA 95742

TARGET PROPERTY COORDINATES

Latitude (North):	38.554523 - 38° 33' 16.28''
Longitude (West):	121.206557 - 121° 12' 23.61''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	656276.2
UTM Y (Meters):	4268661.0
Elevation:	197 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619686 BUFFALO CREEK, 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 principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

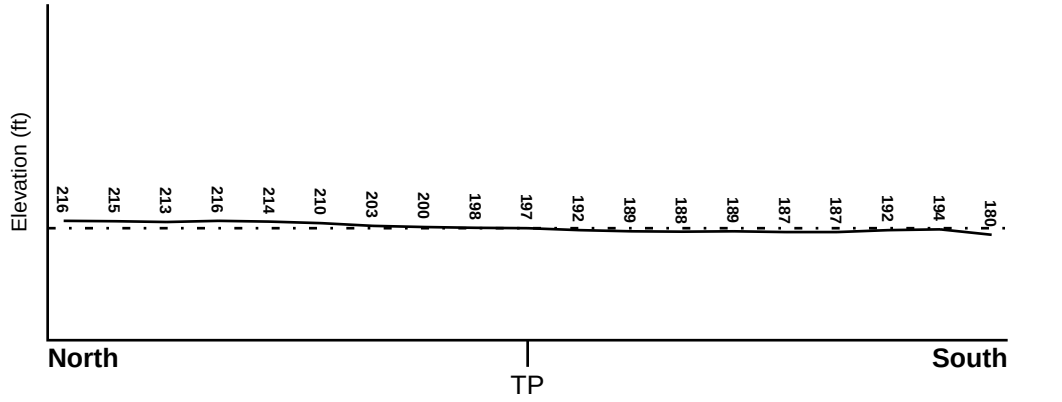
TOPOGRAPHIC INFORMATION

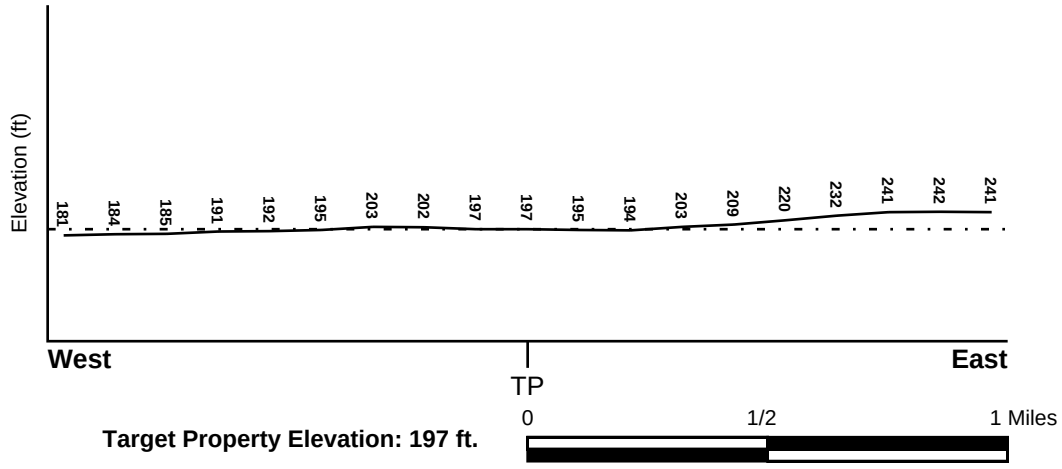
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





0 1/2 1 Miles

Target Property Elevation: 197 ft.

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
06067C0240H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06067C0250H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BUFFALO CREEK	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

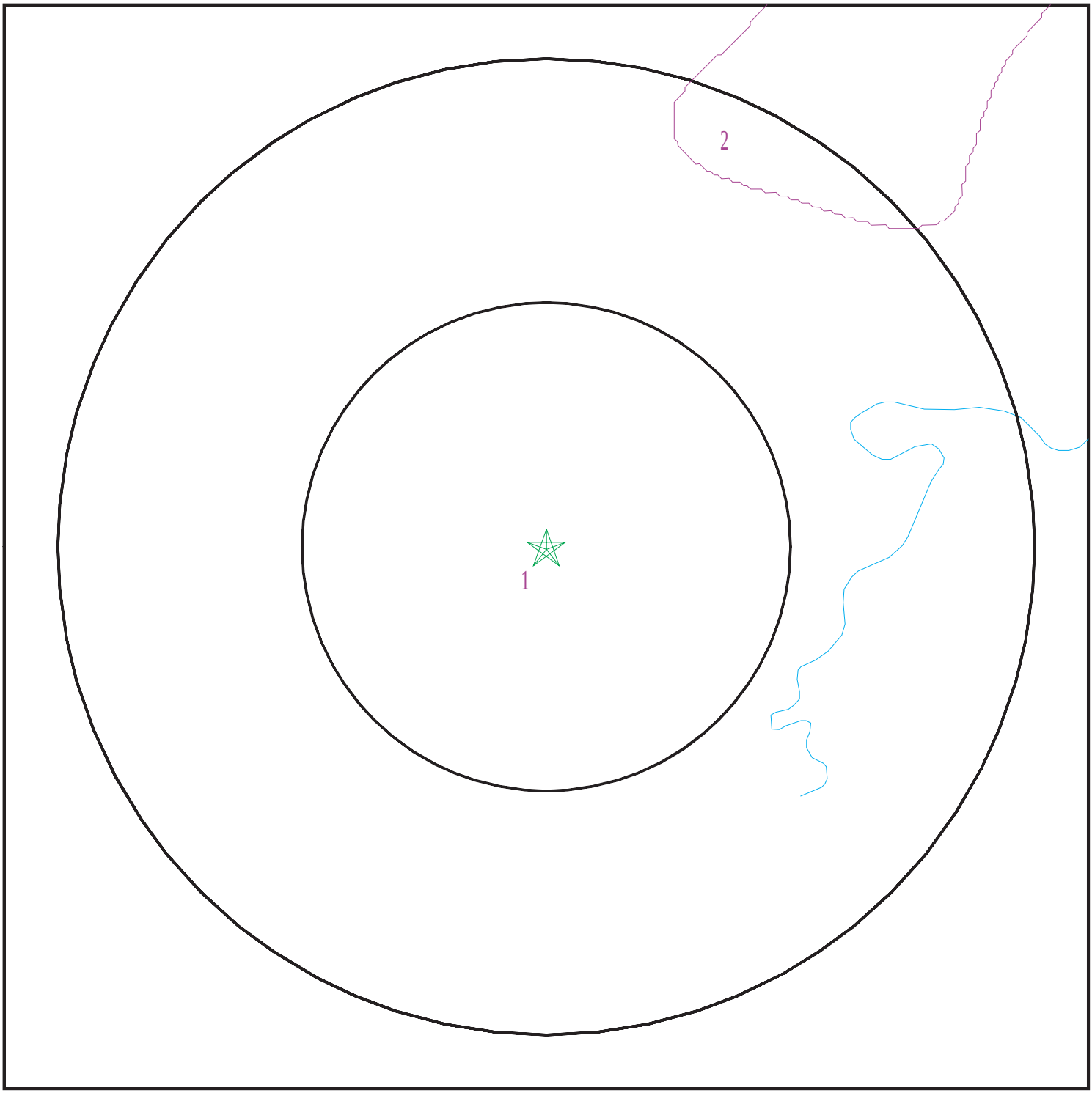
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

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 - 6532774.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Sunridge Solar	CLIENT:	EA Engineering Science & Tech.
ADDRESS:	4151 Poopenaut CT Address of Adjacent Switchyard Rancho Cordova CA 95742	CONTACT:	Denise Pereira
LAT/LONG:	38.554523 / 121.206557	INQUIRY #:	6532774.2s
		DATE:	June 11, 2021 1:51 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: REDDING

Soil Surface Texture: gravelly loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially 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	0 inches	7 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	7 inches	20 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	20 inches	27 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	66 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: FIDDYMENT

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

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	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
2	7 inches	14 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
3	14 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
4	27 inches	40 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:
5	40 inches	44 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4 Min: 1.4	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D12	USGS40000189069	1/2 - 1 Mile West
D15	USGS40000189070	1/2 - 1 Mile West
16	USGS40000188996	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

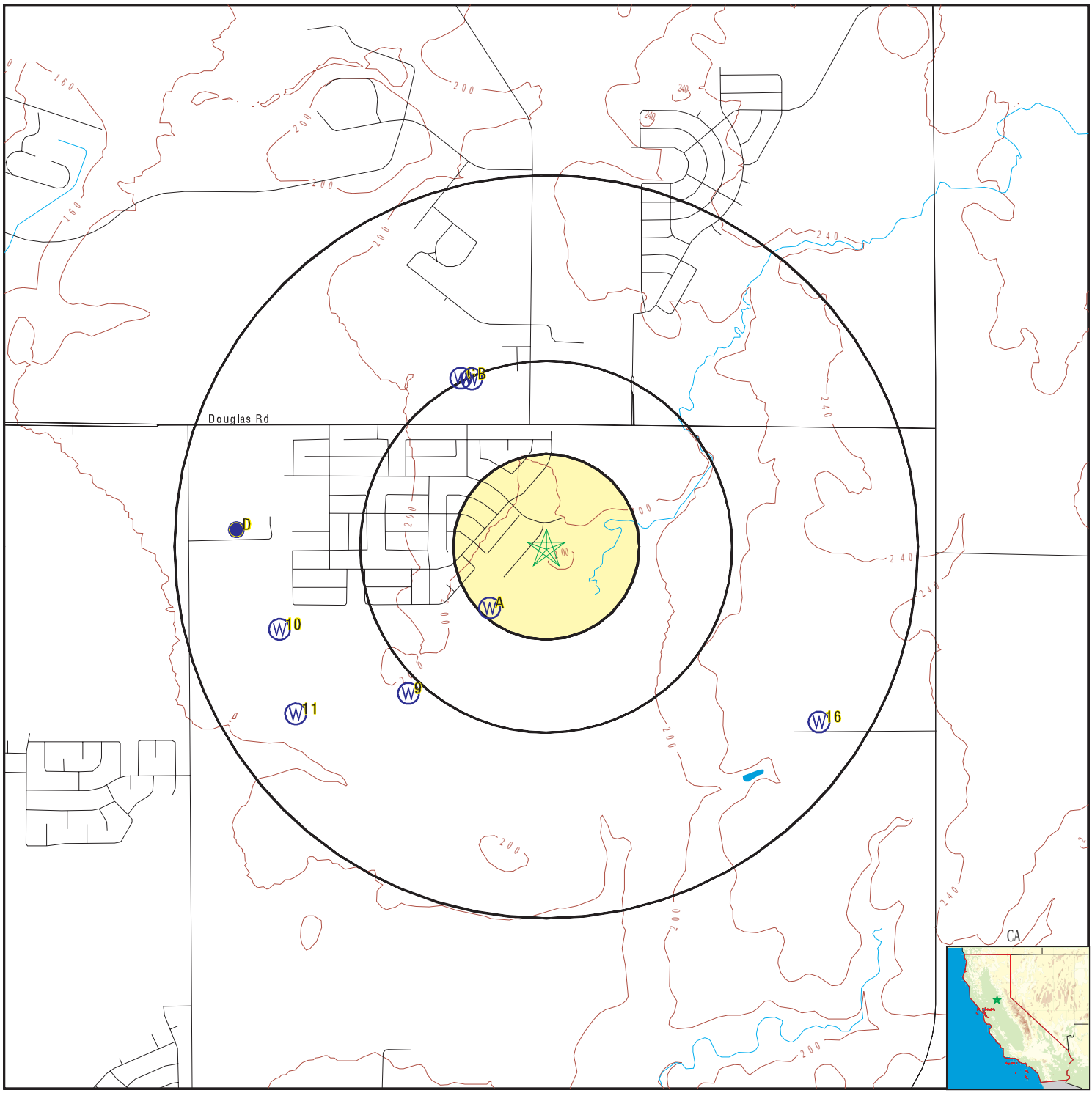
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CAEDF0000021565	1/8 - 1/4 Mile SW
A2	CAEDF0000102149	1/8 - 1/4 Mile SW
A3	CADWR0000030363	1/8 - 1/4 Mile SSW
B4	8375	1/4 - 1/2 Mile NNW
B5	CADDW0000003137	1/2 - 1 Mile NNW
B6	CAPFAS000000345	1/2 - 1 Mile NNW
C7	CAUSGS000001386	1/2 - 1 Mile NNW
C8	CAUSGSN00000331	1/2 - 1 Mile NNW
9	CAEDF0000074238	1/2 - 1 Mile SW
10	CAEDF0000067341	1/2 - 1 Mile WSW
11	CADWR0000028563	1/2 - 1 Mile WSW
D13	CADWR8000038402	1/2 - 1 Mile West
D14	CADWR0000016373	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 6532774.2s



- 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:	Sunridge Solar	CLIENT:	EA Engineering Science & Tech.
ADDRESS:	4151 Poopenaut CT Address of Adjacent Switchyard Rancho Cordova CA 95742	CONTACT:	Denise Pereira
LAT/LONG:	38.554523 / 121.206557	INQUIRY #:	6532774.2s
		DATE:	June 11, 2021 1:51 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
SW
1/8 - 1/4 Mile
Lower

CA WELLS **CAEDF0000021565**

Well ID:	SL205493018-EX-21	Well Type:	MONITORING
Source:	EDF	Other Name:	EX-21
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL205493018&assigned_name=EX-21&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL205493018&assigned_name=EX-21		

A2
SW
1/8 - 1/4 Mile
Lower

CA WELLS **CAEDF0000102149**

Well ID:	SL205493018-EX-20	Well Type:	MONITORING
Source:	EDF	Other Name:	EX-20
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL205493018&assigned_name=EX-20&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL205493018&assigned_name=EX-20		

A3
SSW
1/8 - 1/4 Mile
Lower

CA WELLS **CADWR0000030363**

Well ID:	08N07E09K001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	08N07E09K001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=08N07E09K001M&store_num=		
GeoTracker Data:	Not Reported		

B4
NNW
1/4 - 1/2 Mile
Higher

CA WELLS **8375**

Seq:	8375	Prim sta c:	08N/07E-09K01 M
Frds no:	3410027003	County:	34
District:	09	User id:	TEN
System no:	3410027	Water type:	G
Source nam:	CENTRAL 02	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	383340.0	Longitude:	1211230.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System no:	3410027	System nam:	Cucc - Security Park
Hqname:	CITIZENS UTILITIES COMP OF CA	Address:	P.O. Box 15468
City:	Sacramento	State:	CA
Zip:	95851	Zip ext:	Not Reported
Pop serv:	49	Connection:	9
Area serve:	SECURITY PARK		

Sample date:	13-NOV-17	Finding:	1.75
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	02-AUG-17	Finding:	1.75
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	09-MAY-17	Finding:	2.74
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		

Sample date:	23-AUG-16	Finding:	1.69
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	25-AUG-15	Finding:	10.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	48.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	100.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	83.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	150.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	1700.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	25-AUG-15	Finding:	73.
Chemical:	SILICA	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	0.18
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	25-AUG-15	Finding:	2.3
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	25-AUG-15	Finding:	4.1
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	25-AUG-15	Finding:	12.9
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	6.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	11.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	1.74
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-AUG-15	Finding:	5.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	150.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	0.24
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	25-AUG-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-AUG-15	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-AUG-14	Finding:	7.59
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-14	Finding:	66.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-14	Finding:	150.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	08-MAY-14	Finding:	80.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-14	Finding:	7.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-14	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	08-MAY-14	Finding:	2.5
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	12-DEC-13	Finding:	3.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	09-SEP-13	Finding:	7.42
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-SEP-12	Finding:	5.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	10.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	49.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	76.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	63.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	150.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	1500.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-SEP-12	Finding:	6.84
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-SEP-12	Finding:	72.
Chemical:	SILICA	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-SEP-12	Finding:	2.2
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	11-SEP-12	Finding:	6.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	11-SEP-12	Finding:	12.3
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	6.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	140.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	0.26
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-SEP-12	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-SEP-12	Finding:	10.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAR-12	Finding:	1.09
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	01-MAR-12	Finding:	0.191
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

B5
NNW
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000003137**

Well ID:	3410027-003	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CENTRAL 02	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3410027-003&store_num=		
GeoTracker Data:	Not Reported		

B6
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000000345**

Well ID:	3410027-003	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CENTRAL 02	GAMA PFAS Testing:	Yes
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3410027-003&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C7
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGS000001386**

Well ID:	SSV-QPC-09	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	SSV-QPC-09	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=SSV-QPC-09&store_num=		
GeoTracker Data:	Not Reported		

C8
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00000331**

Well ID:	USGS-383300121120001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-383300121120001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-383300121120001&store_num=		
GeoTracker Data:	Not Reported		

9
SW
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000074238**

Well ID:	SL205493018-EX-22	Well Type:	MONITORING
Source:	EDF	Other Name:	EX-22
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL205493018&assigned_name=EX-22&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL205493018&assigned_name=EX-22		

10
WSW
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000067341**

Well ID:	SL205493018-EX-27	Well Type:	MONITORING
Source:	EDF	Other Name:	EX-27
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL205493018&assigned_name=EX-27&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL205493018&assigned_name=EX-27		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

11
WSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000028563**

Well ID:	08N07E09N002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	08N07E09N002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=08N07E09N002M&store_num=		
GeoTracker Data:	Not Reported		

D12
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000189069**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	008N007E09N002M	Type:	Well
Description:	MATHER AFB CANVASS.	HUC:	18020109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19820827	Well Depth:	174
Well Depth Units:	ft	Well Hole Depth:	385
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	1987-12-09
Feet below surface:	128.83	Feet to sea level:	Not Reported
Note:	The site had been pumped recently.		

Level reading date:	1982-08-27	Feet below surface:	128
Feet to sea level:	Not Reported	Note:	Not Reported

D13
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000038402**

State Well #:	08N07E09N001M	Station ID:	30673
Well Name:	Not Reported	Well Use:	Residential
Well Type:	Unknown	Well Depth:	0
Basin Name:	South American	Well Completion Rpt #:	Not Reported

---

D14
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000016373**

Well ID:	08N07E09N001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	08N07E09N001M	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=08N07E09N001M&store_num=
GeoTracker Data: Not Reported

D15
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000189070**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	008N007E09N001M	Type:	Well
Description:	MATHER AFB CANVASS.	HUC:	18020109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	195210	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1987-12-09
Feet below surface:	130.78	Feet to sea level:	Not Reported
Note:	Not Reported		

16
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000188996**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	008N007E15G001M	Type:	Well
Description:	MATHER AFB CANVASS.	HUC:	18020109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	197902	Well Depth:	205
Well Depth Units:	ft	Well Hole Depth:	345
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1979-02
Feet below surface:	160	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95742	6	0

Federal EPA Radon Zone for SACRAMENTO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SACRAMENTO COUNTY, CA

Number of sites tested: 52

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.665 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.200 pCi/L	100%	0%	0%
Basement	8.350 pCi/L	50%	50%	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 and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix E

Historical Research Documentation*

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Sunridge Solar

4151 Poopenaut CT Address of Adjacent Switchyard

Rancho Cordova, CA 95742

Inquiry Number: 6532774.4

June 11, 2021

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

06/11/21

Site Name:

Sunridge Solar
4151 Poopenaut CT Address c
Rancho Cordova, CA 95742
EDR Inquiry # 6532774.4

Client Name:

EA Engineering Science & Tech.
301 Metro Center Blvd, Suite 102
Warwick, RI 02886-0000
Contact: Denise Pereira

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by EA Engineering Science & Tech. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 0731611 proposal no
Project: Sunridge Solar

Coordinates:

Latitude:	38.554523 38° 33' 16" North
Longitude:	-121.206557 -121° 12' 24" West
UTM Zone:	Zone 10 North
UTM X Meters:	656272.21
UTM Y Meters:	4268868.04
Elevation:	196.18' above sea level

Maps Provided:

2012	1908
1980	1893
1975	1892
1967	1891
1954	
1944	
1941	
1916	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Buffalo Creek
2012
7.5-minute, 24000

1980 Source Sheets

Buffalo Creek
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1975 Source Sheets

Buffalo Creek
1975
7.5-minute, 24000
Aerial Photo Revised 1975

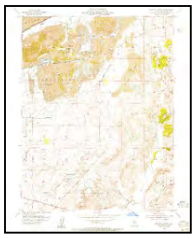
1967 Source Sheets

Buffalo Creek
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1954 Source Sheets



Buffalo Creek
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1944 Source Sheets

Folsom
1944
15-minute, 62500

1941 Source Sheets

Folsom
1941
15-minute, 62500

1916 Source Sheets

Buffalo Creek
1916
7.5-minute, 31680

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1908 Source Sheets

Buffalo Creek
1908
7.5-minute, 31680

1893 Source Sheets

Sacramento
1893
30-minute, 125000

1892 Source Sheets

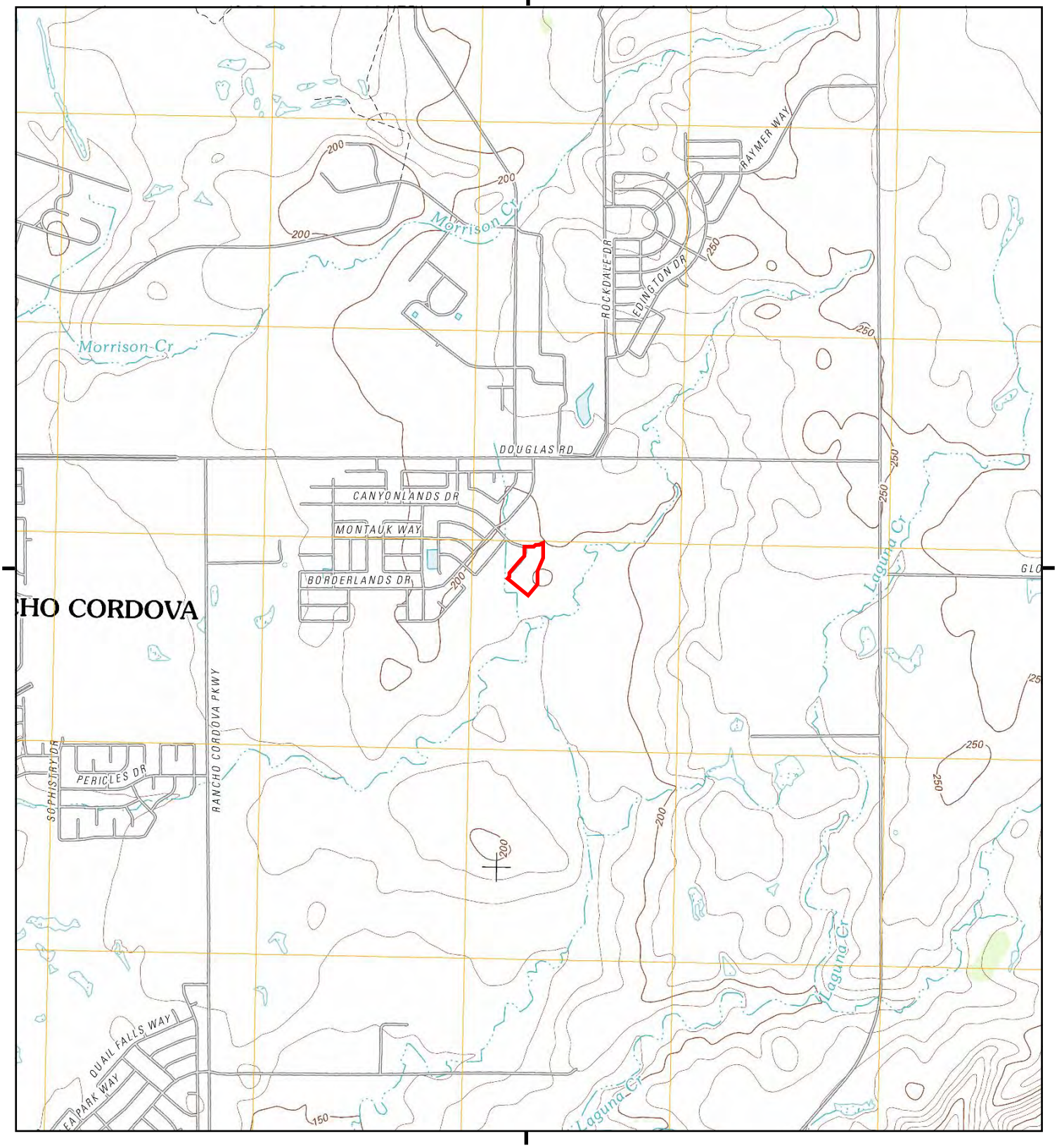
Sacramento
1892
30-minute, 125000

1891 Source Sheets

Sacramento
1891
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

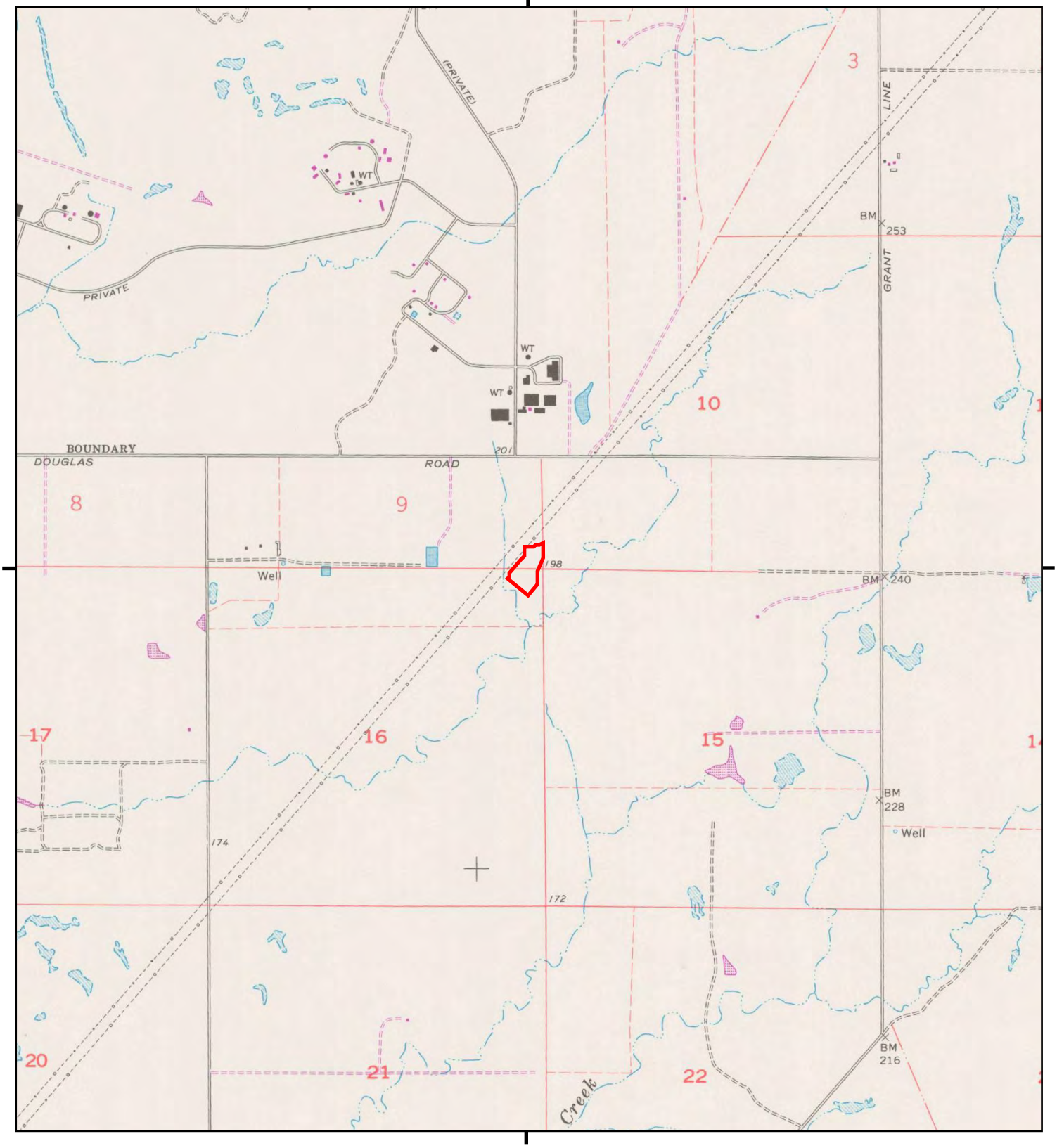
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Buffalo Creek, 2012, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

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

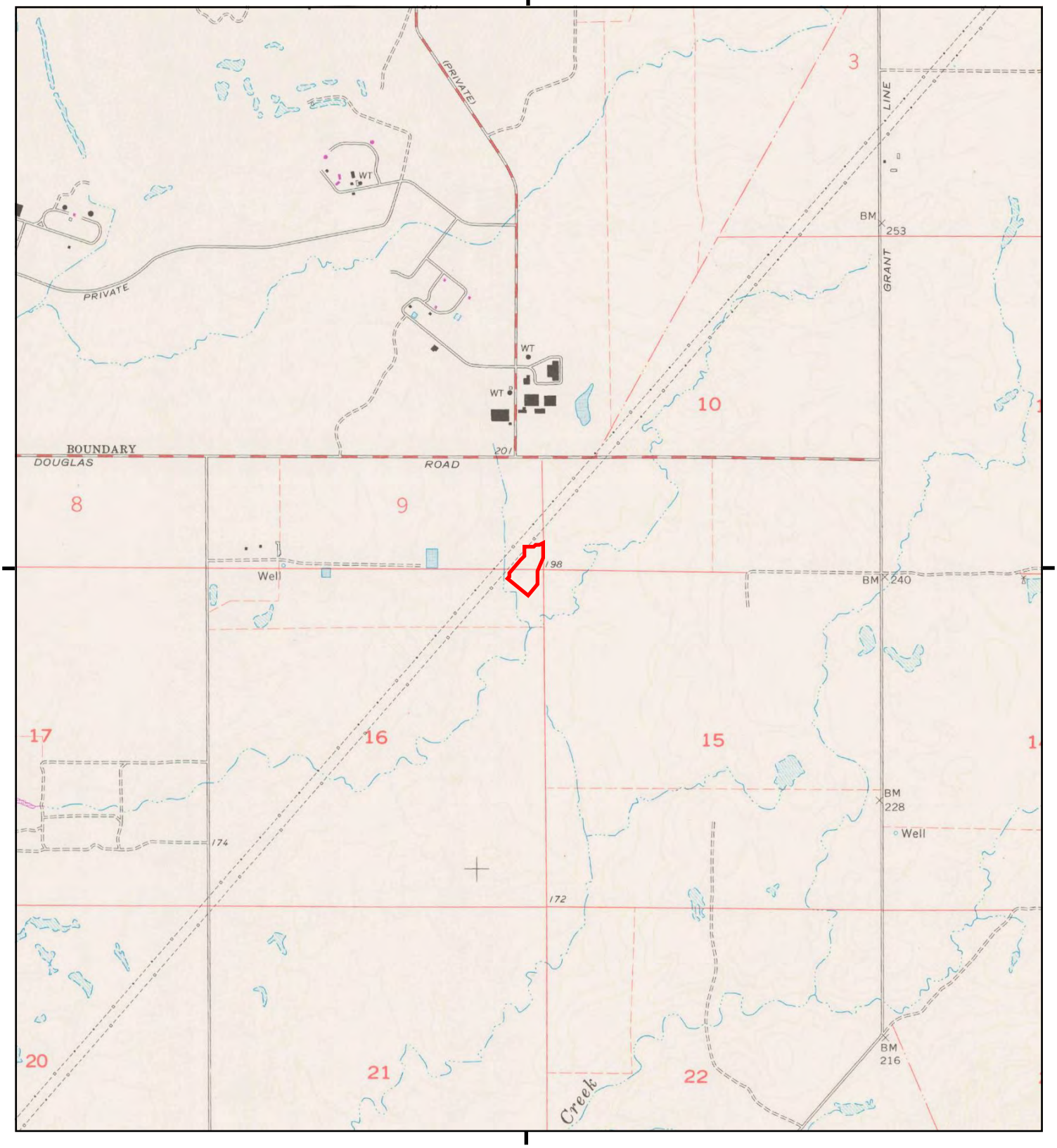
TP, Buffalo Creek, 1980, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N

Historical Topo Map

1975



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

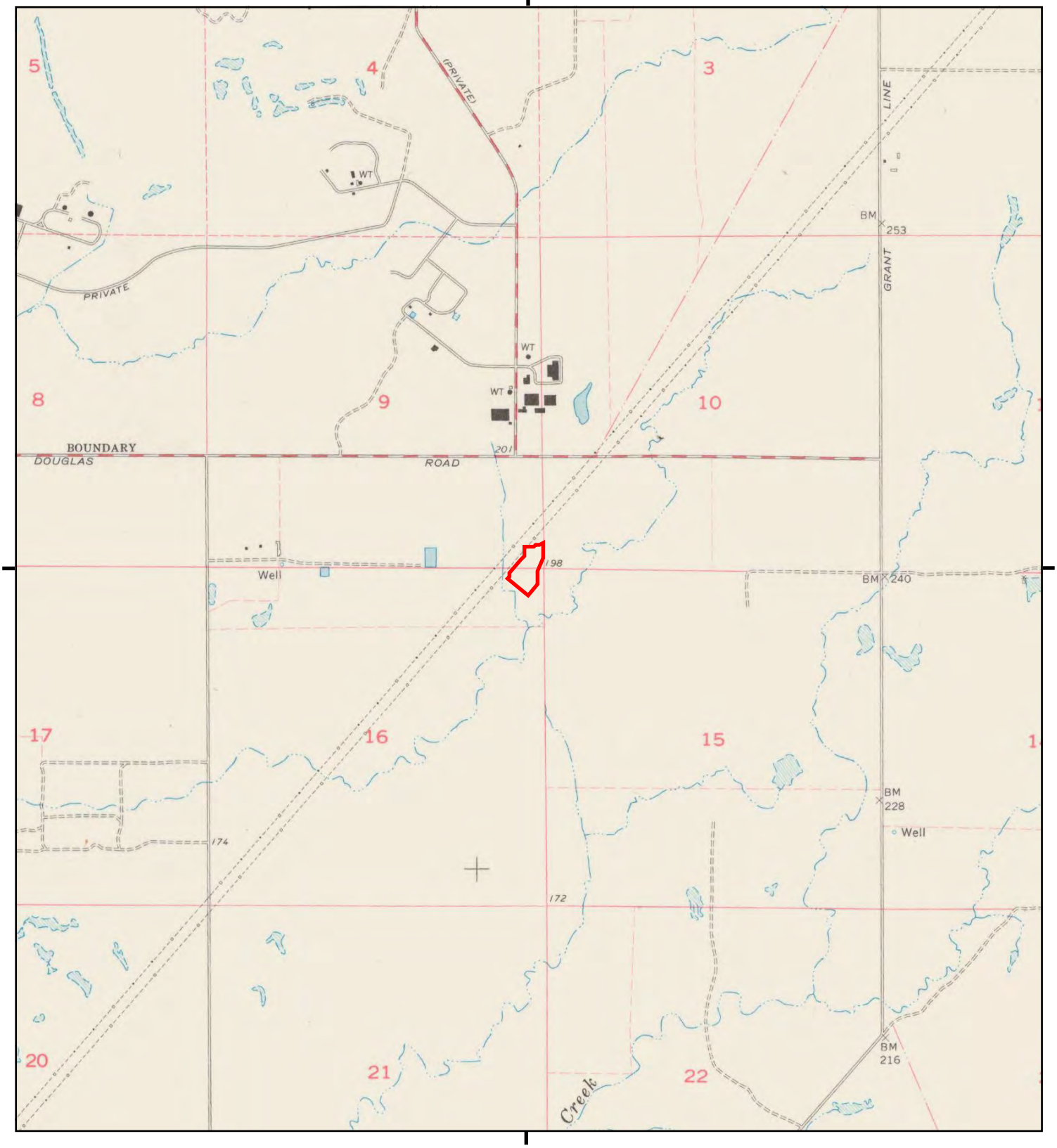
TP, Buffalo Creek, 1975, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N

Historical Topo Map

1967



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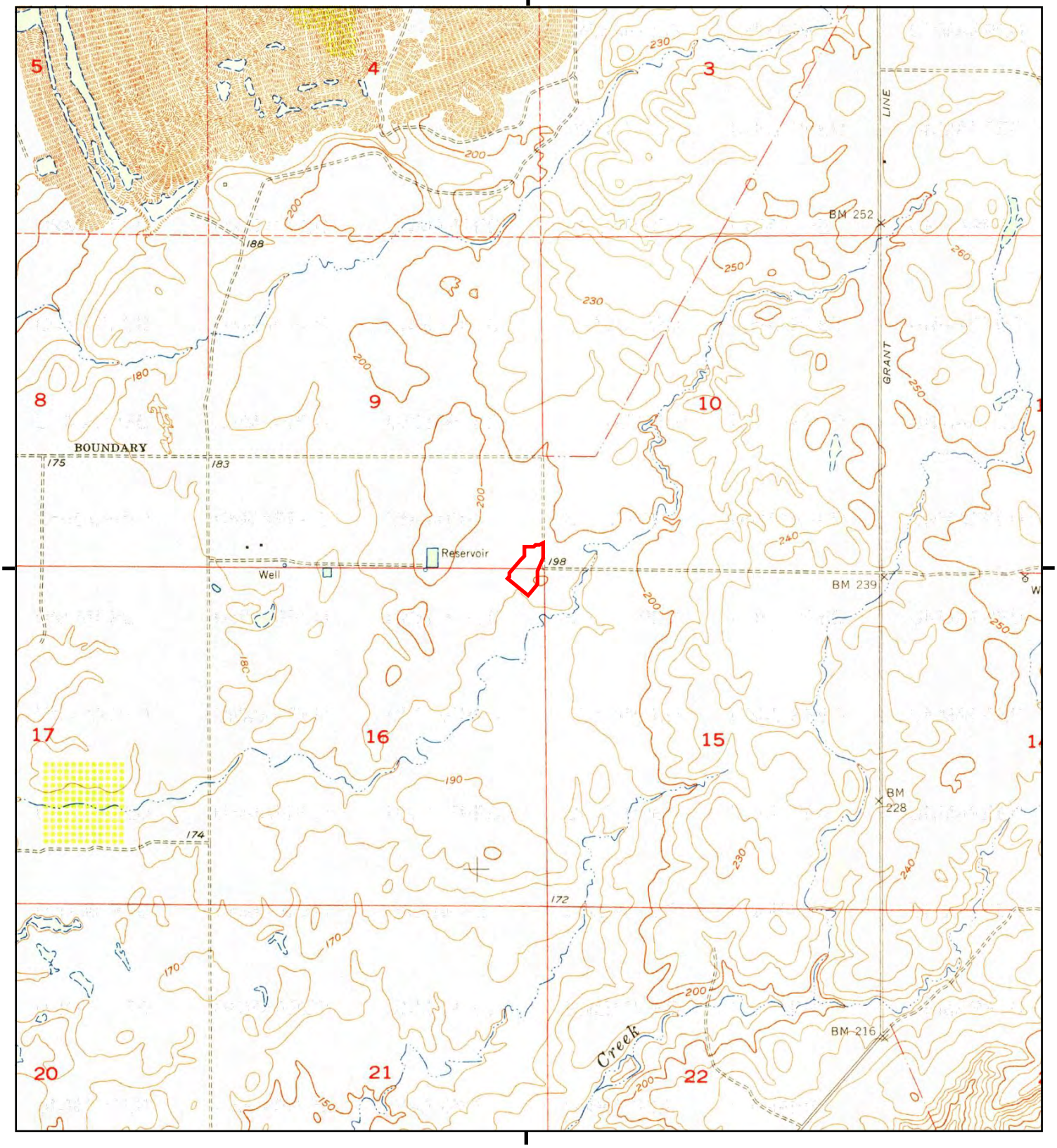
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Buffalo Creek, 1967, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

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

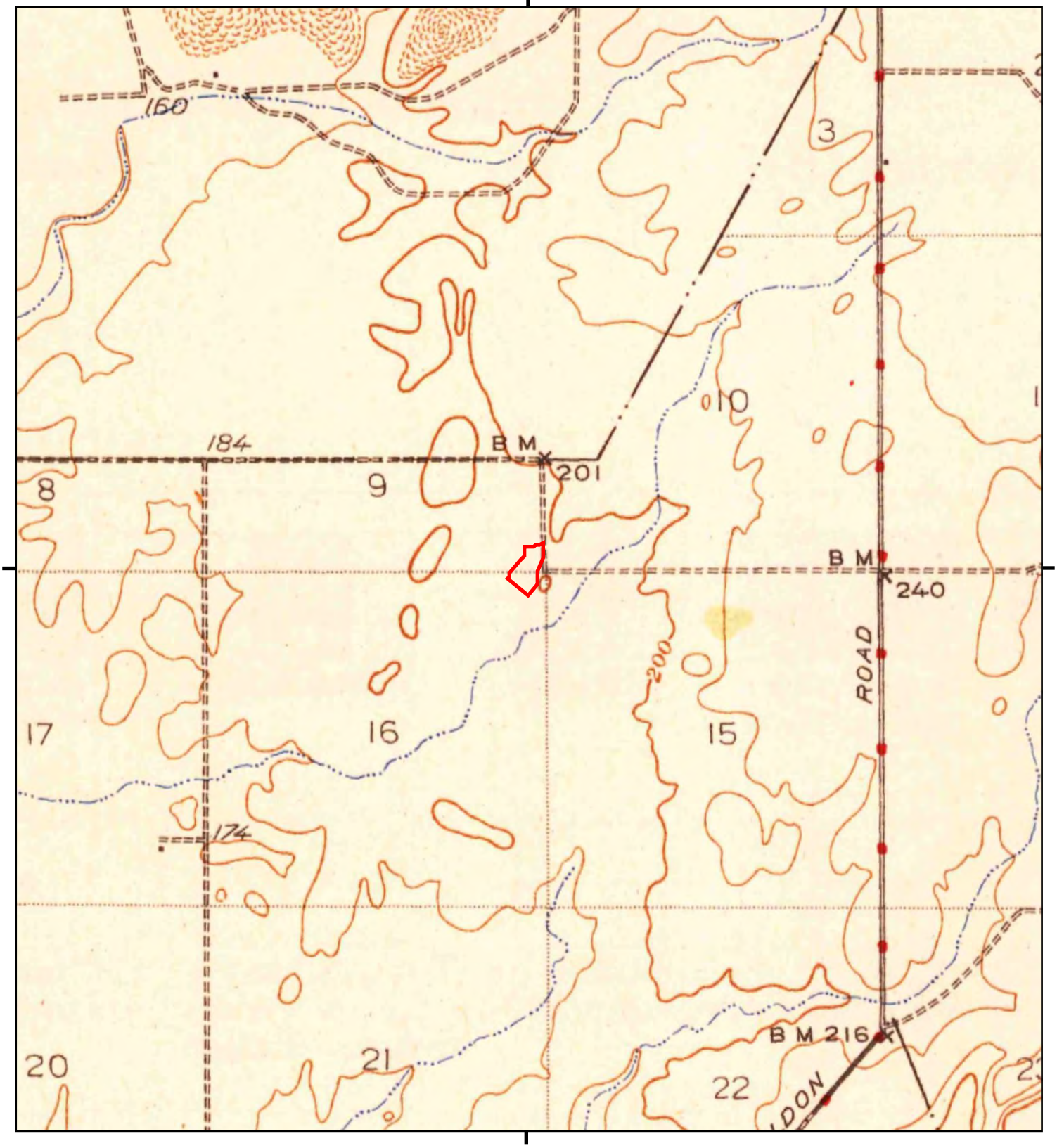
TP, Buffalo Creek, 1954, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N

Historical Topo Map

1944



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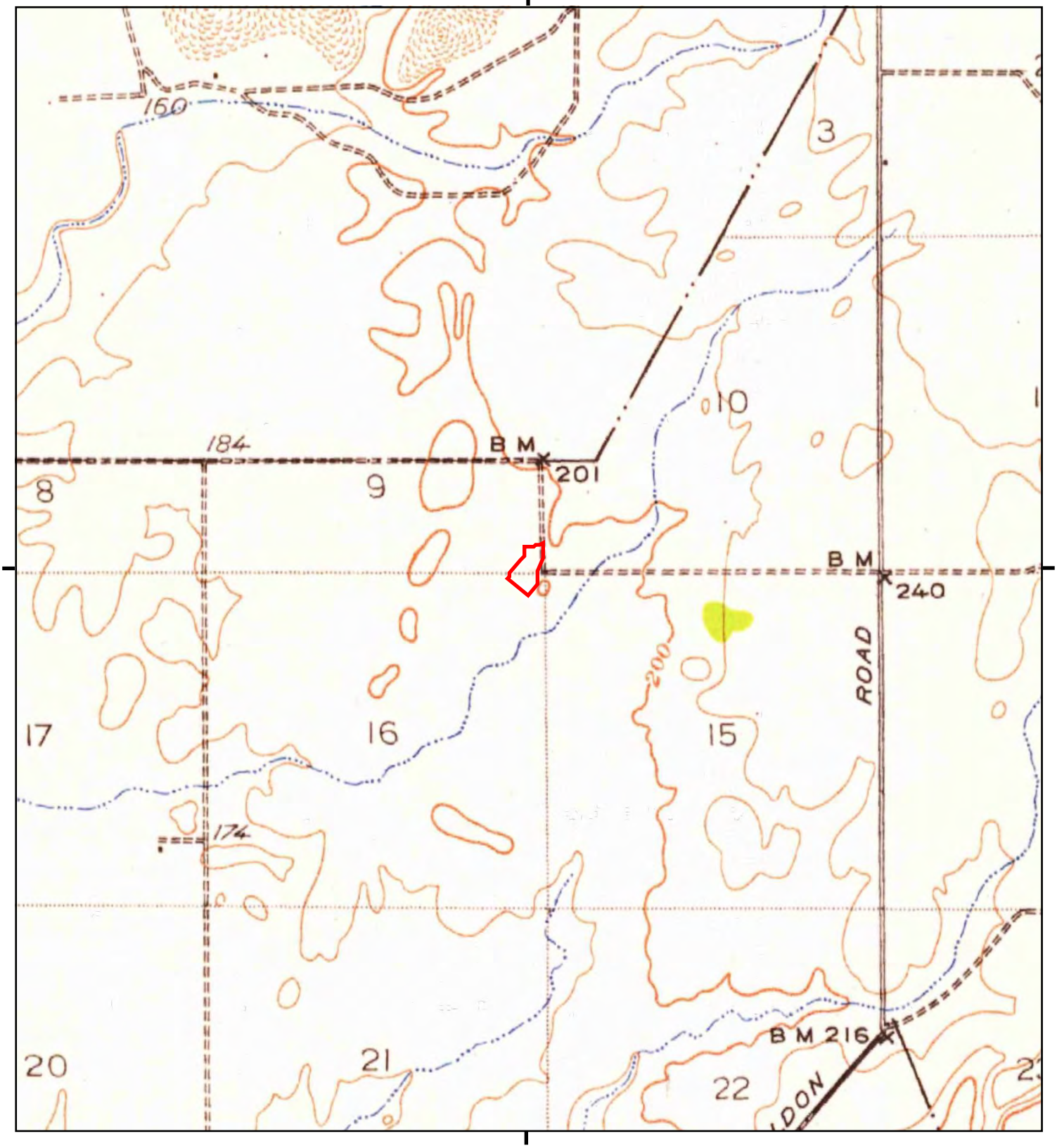
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Folsom, 1944, 15-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N



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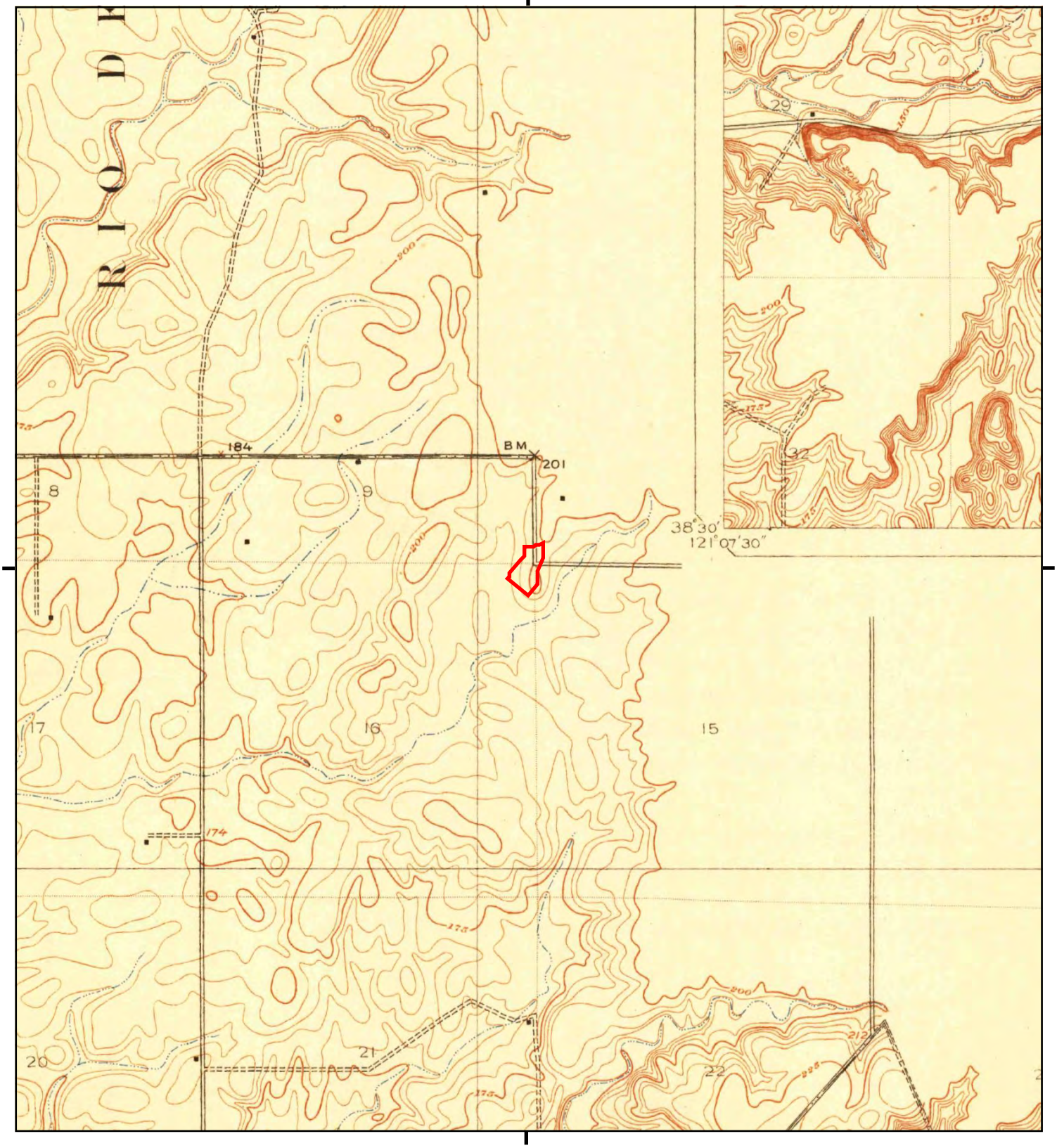
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Folsom, 1941, 15-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

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, Buffalo Creek, 1916, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N

This report includes information from the following map sheet(s).

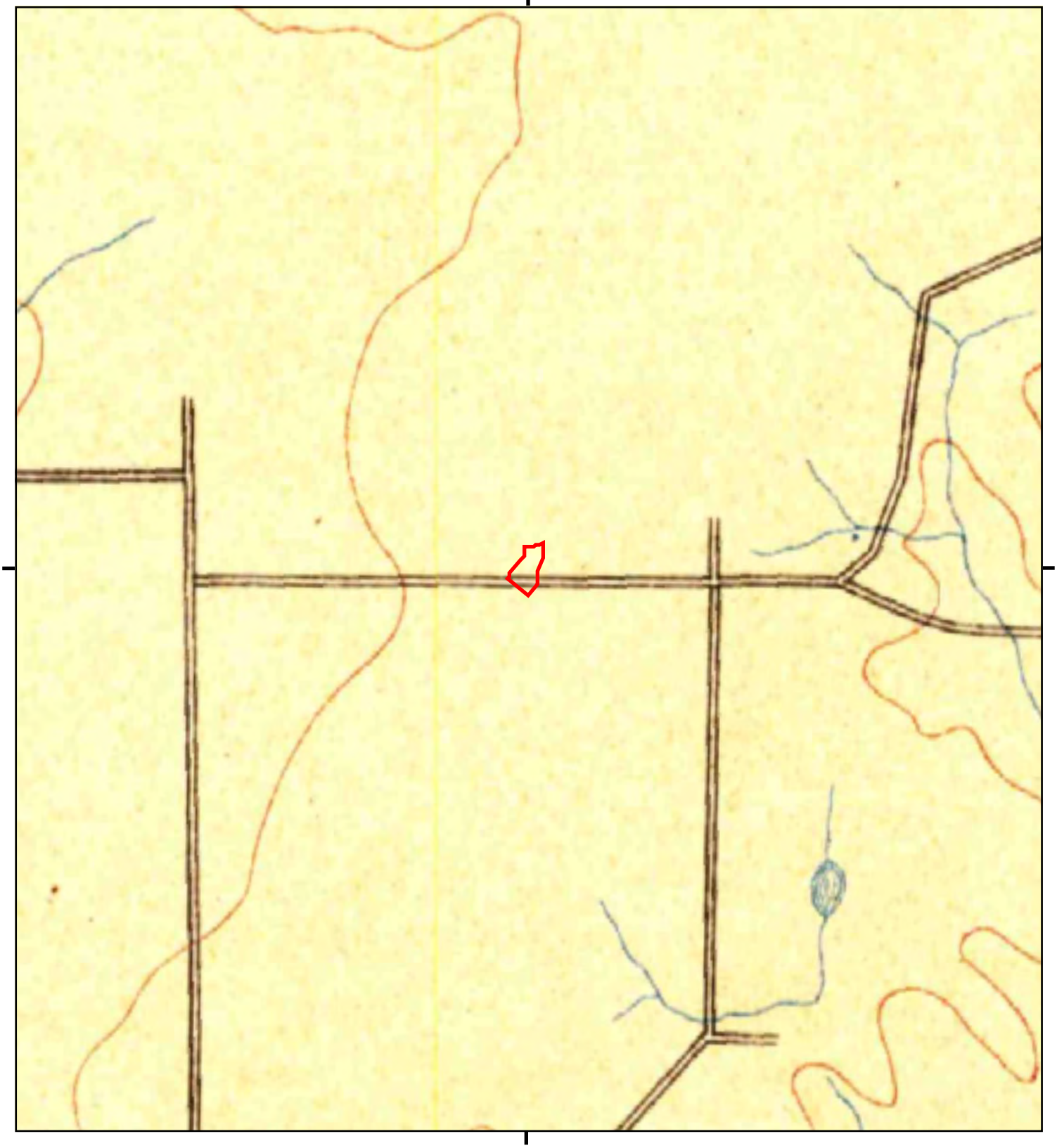
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Buffalo Creek, 1908, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N



This report includes information from the following map sheet(s).

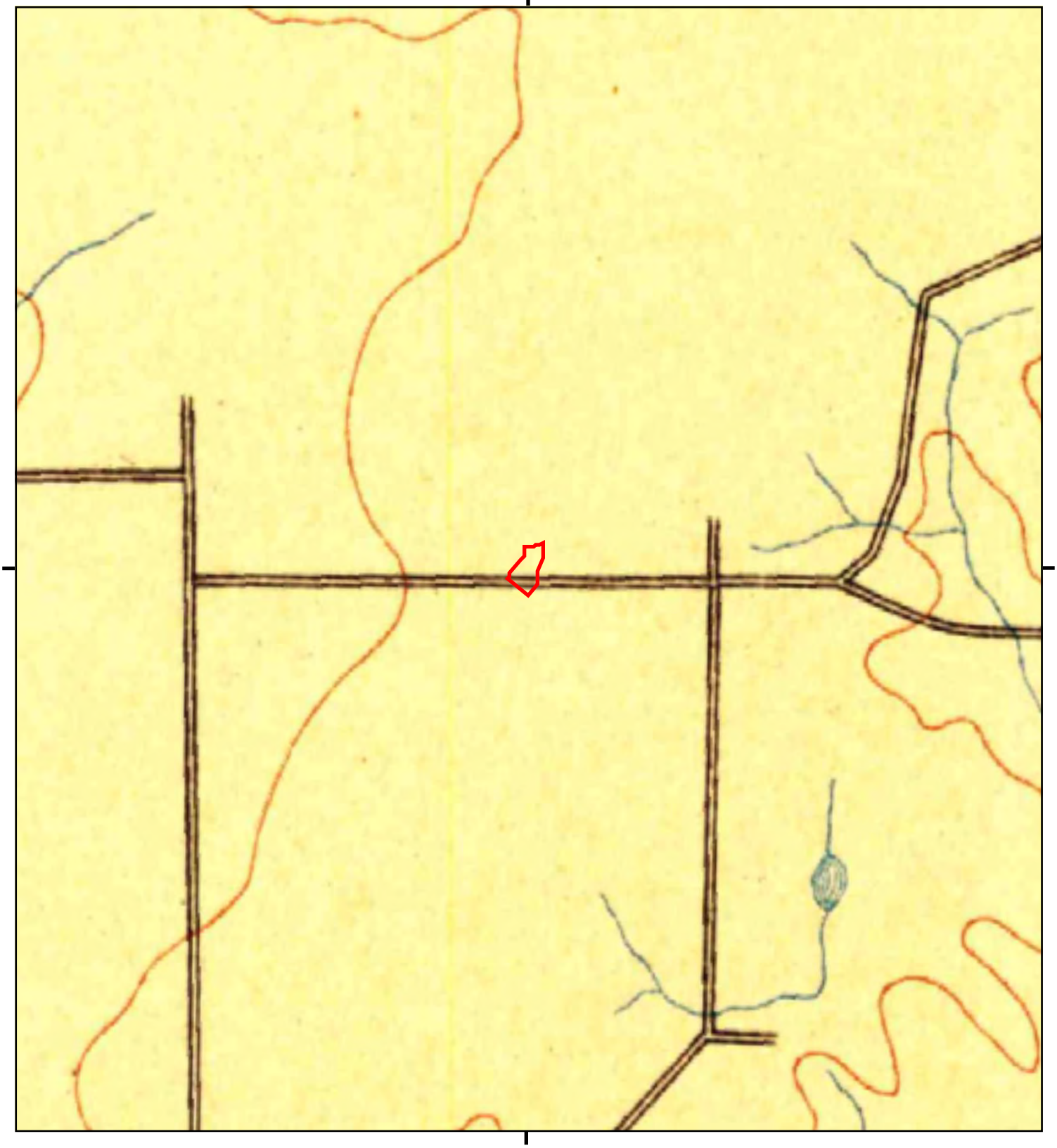
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sacramento, 1893, 30-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N



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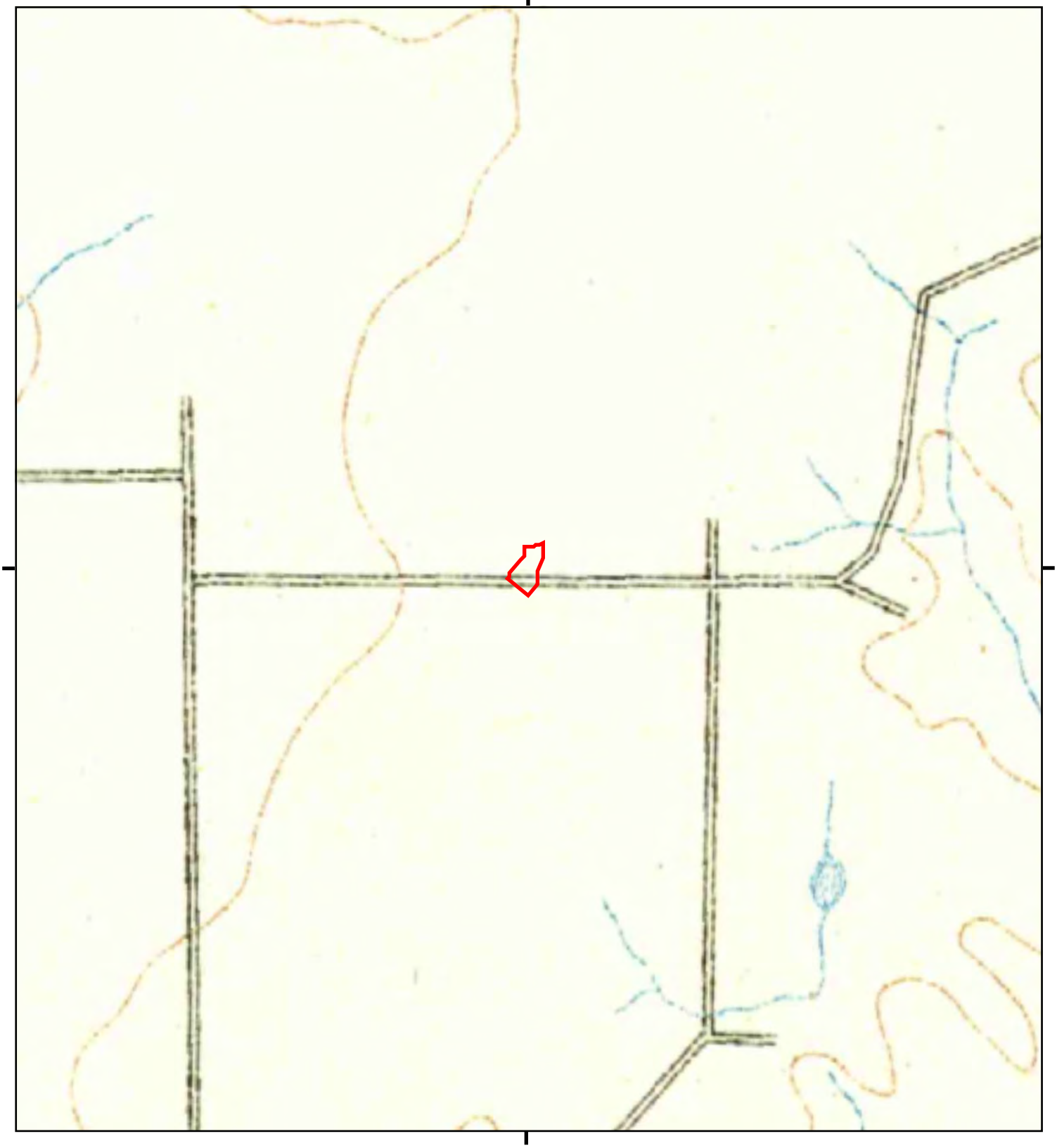
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Sacramento, 1892, 30-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

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, Sacramento, 1891, 30-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.

N

Sunridge Solar

4151 Poopenaut CT Address of Adjacent Switchyard

Rancho Cordova, CA 95742

Inquiry Number: 6532774.11

June 11, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/11/21

Site Name:

Sunridge Solar
4151 Poopenaut CT Address (
Rancho Cordova, CA 95742
EDR Inquiry # 6532774.11

Client Name:

EA Engineering Science & Tech.
301 Metro Center Blvd, Suite 102
Warwick, RI 02886-0000
Contact: Denise Pereira

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Acquisition Date: January 01, 1998	USGS/DOQQ
1993	1"=500'	Acquisition Date: May 22, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 08, 1984	USDA
1972	1"=500'	Flight Date: July 06, 1972	USDA
1966	1"=500'	Flight Date: August 05, 1966	USGS
1964	1"=500'	Flight Date: May 29, 1964	USDA
1957	1"=500'	Flight Date: August 24, 1957	USDA
1952	1"=500'	Flight Date: July 22, 1952	USGS
1937	1"=500'	Flight Date: August 16, 1937	USDA

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EDR

INQUIRY #: 6532774.11

YEAR: 2012

= 500'

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INQUIRY #: 6532774.11

YEAR: 2009

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INQUIRY #: 6532774.11

YEAR: 2006

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EDR

INQUIRY #: 6532774.11

YEAR: 1998

= 500'

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EDR

INQUIRY #: 6532774.11

YEAR: 1993

= 500'

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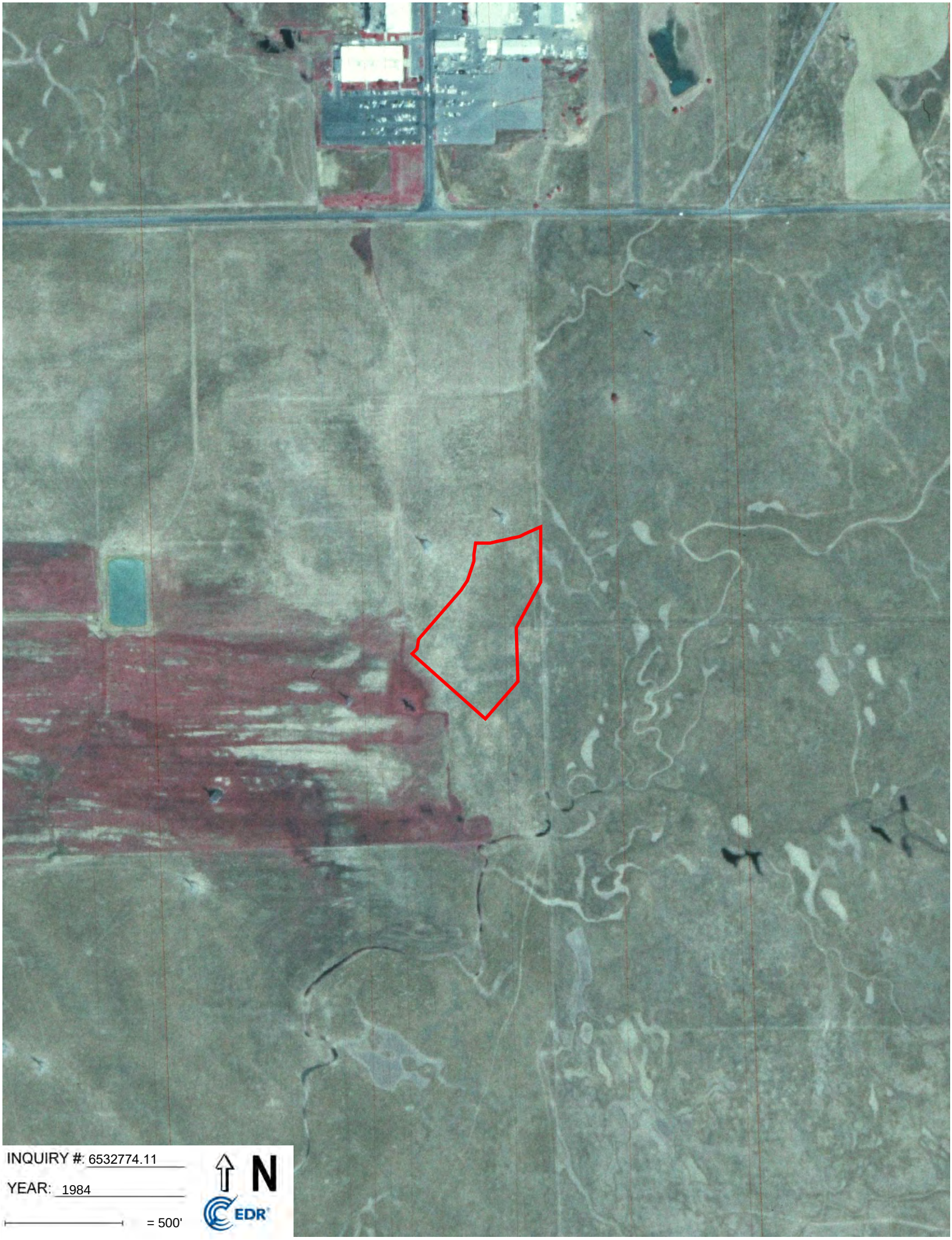
EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.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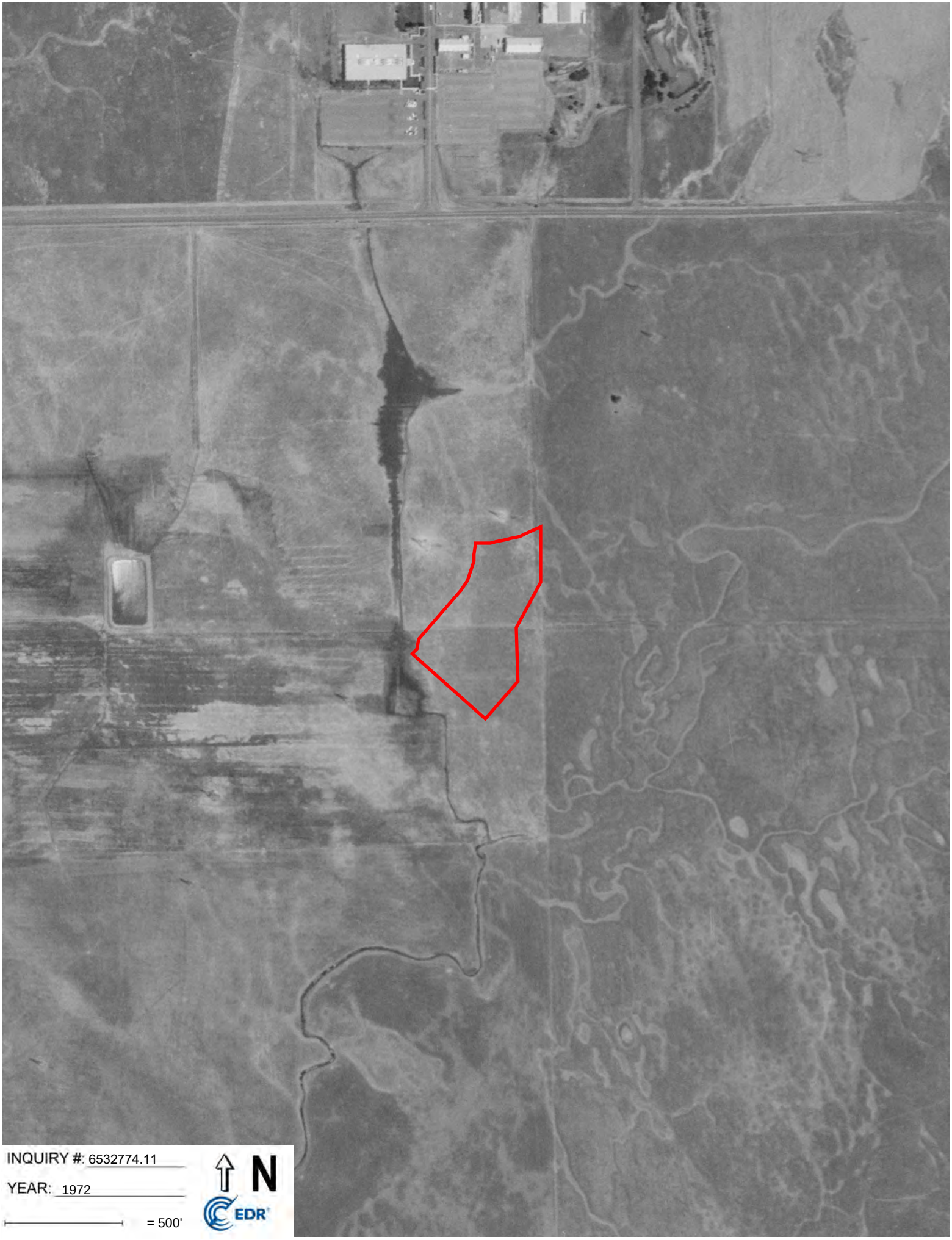

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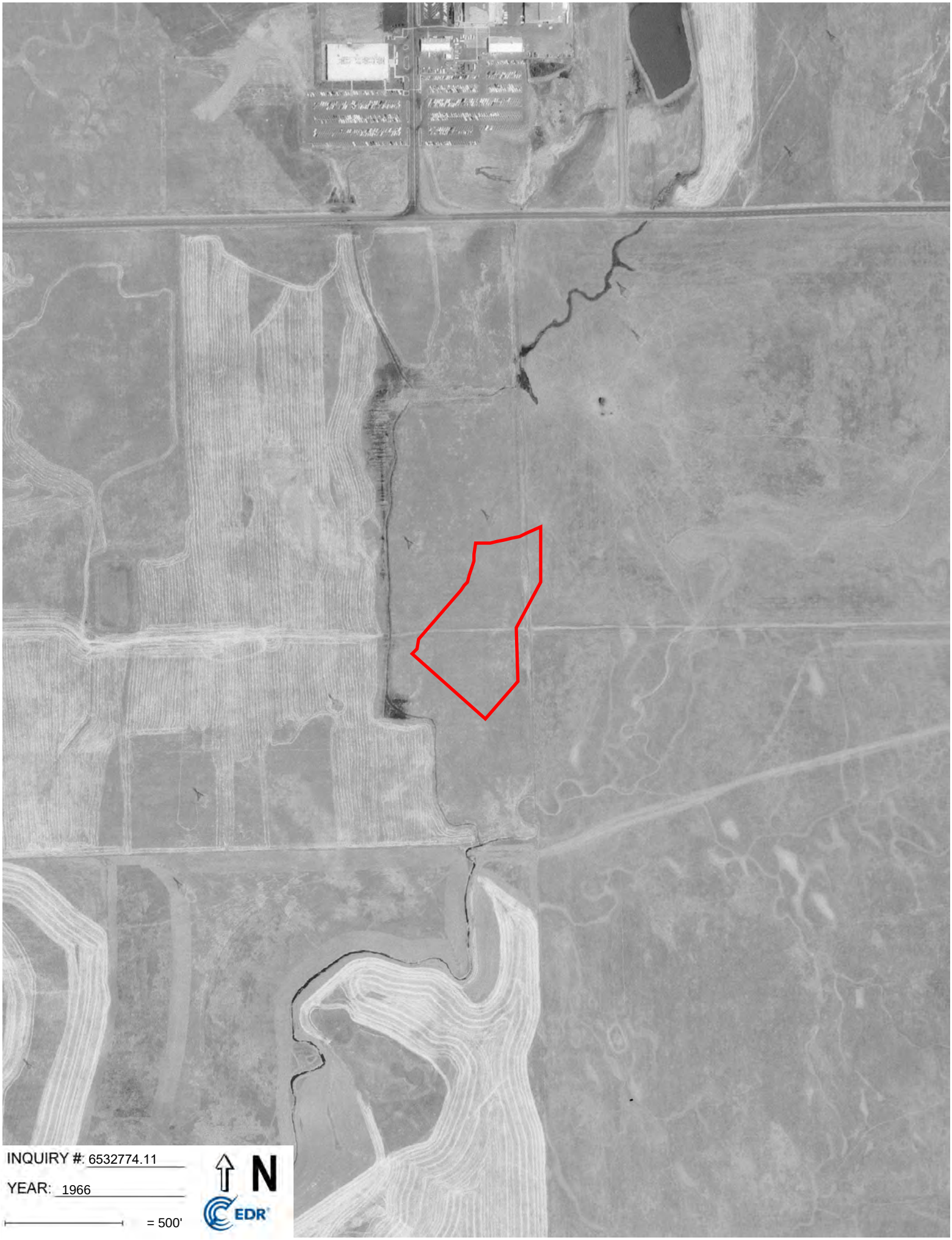
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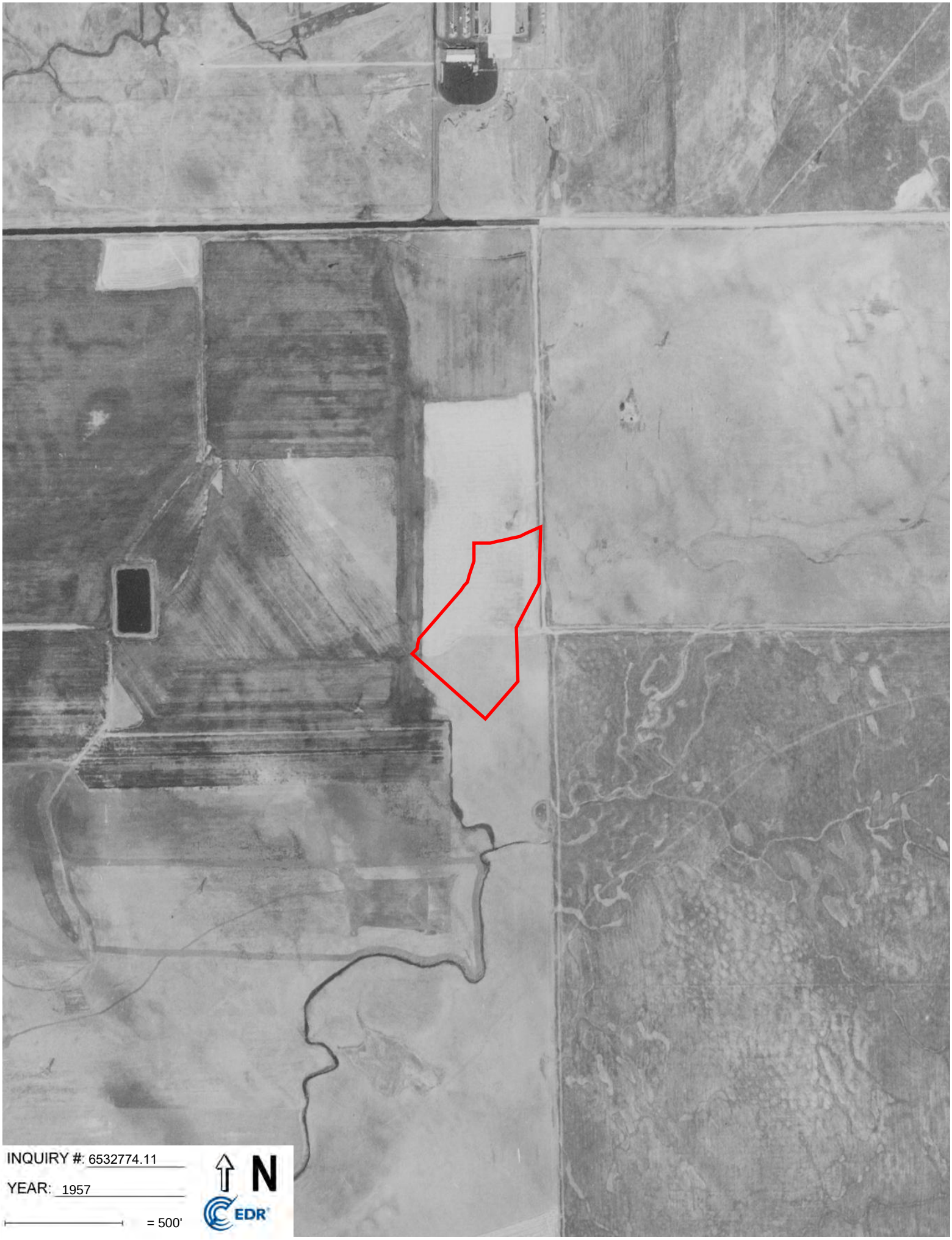

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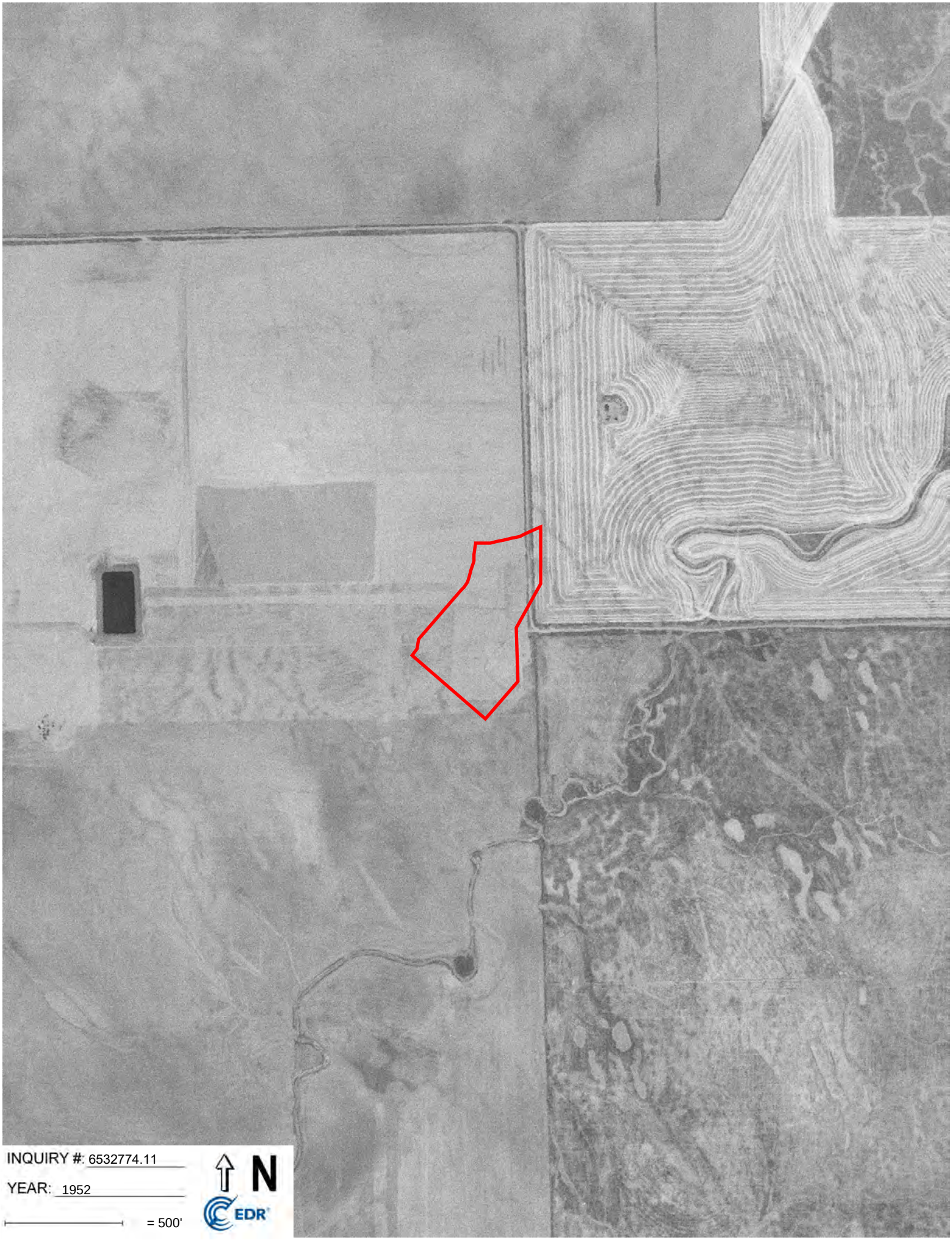

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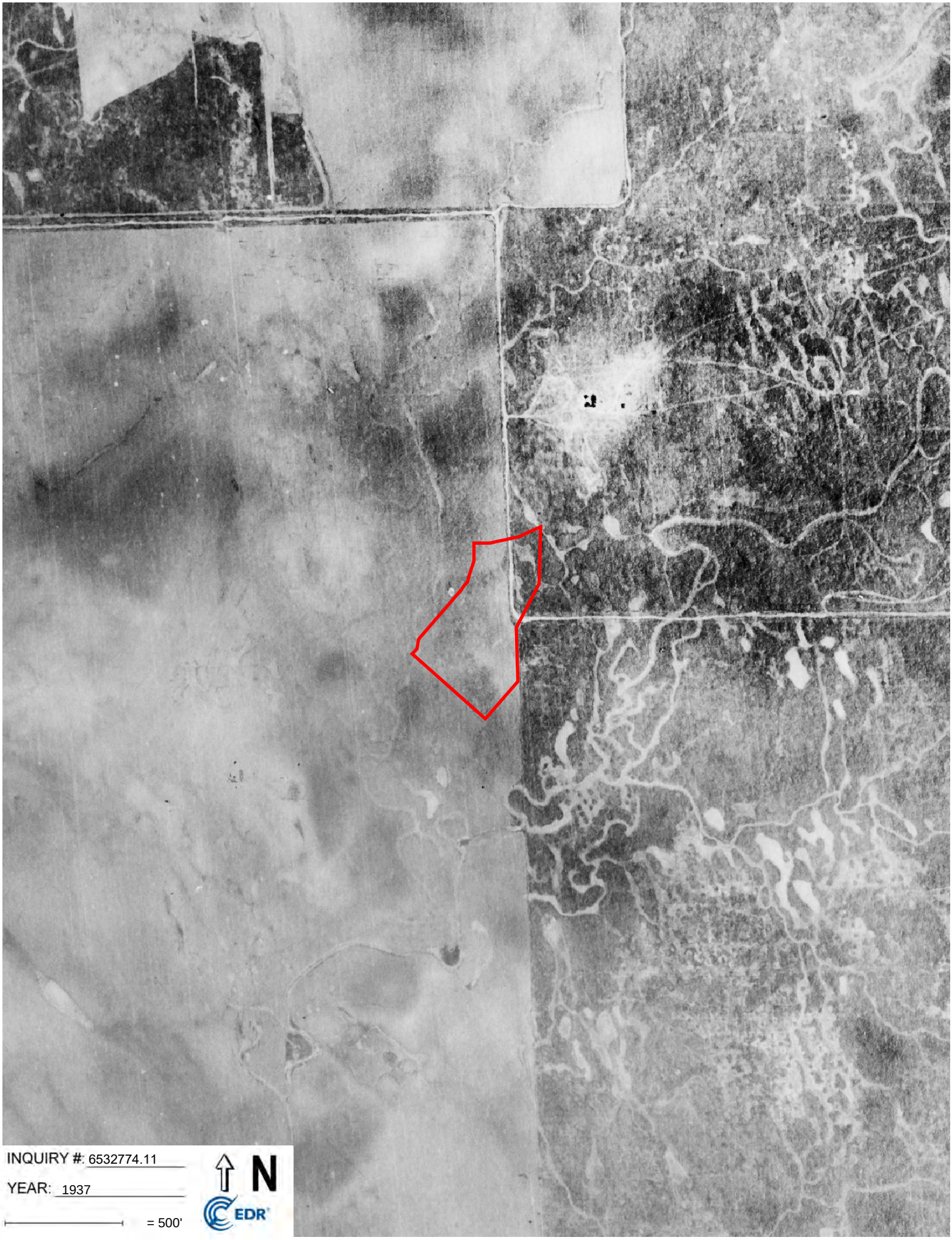
EDR



INQUIRY #: 6532774.11

YEAR: 1937

= 500'

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EDR

Sunridge Solar
4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Inquiry Number: 6532774.5
June 16, 2021

The EDR-City Directory Image Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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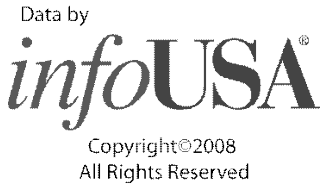

RESEARCH SUMMARY

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*
2017	☐	☐	EDR Digital Archive
2014	☐	☐	EDR Digital Archive
2010	☐	☐	EDR Digital Archive
2005	☐	☐	EDR Digital Archive
2000	☐	☐	EDR Digital Archive
1995	☐	☐	EDR Digital Archive
1992	☐	☐	EDR Digital Archive
1985	☐	☐	Haines Criss-Cross Directory
1981	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory
1971	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova, CA 95742

Year	*CD Image*	*Source*	
POOPENAUT CT			
2017	-	EDR Digital Archive	Target and Adjoining not listed in Source
2014	-	EDR Digital Archive	Target and Adjoining not listed in Source
2010	-	EDR Digital Archive	Target and Adjoining not listed in Source
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

Sunridge Solar

4151 Poopenaut CT Address of Adjacent Switchyard

Rancho Cordova, CA 95742

Inquiry Number: 6532774.3

June 11, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

06/11/21

Site Name:

Sunridge Solar
4151 Poopenaut CT Address c
Rancho Cordova, CA 95742
EDR Inquiry # 6532774.3

Client Name:

EA Engineering Science & Tech.
301 Metro Center Blvd, Suite 102
Warwick, RI 02886-0000
Contact: Denise Pereira

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by EA Engineering Science & Tech. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # E24F-46F5-A0E5

PO # 0731611 proposal no

Project Sunridge Solar

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: E24F-46F5-A0E5

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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Appendix F

Photograph Log

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Photograph 1: View of the switch yard on the southern side of the subject site.

Photograph 2: View of the subject site facing north.

Photograph 3: View of the subject site facing west.

Photograph 4: View of the subject site facing east.

Photograph 5: View of the chain link fence on the southeastern border

Photograph 6: View of the barbwire fence on the southeastern border.

Photograph 7: View of the knee-high grass at the subject site.

Photograph 8: View the subject site facing south.

Appendix G

Resumes of the Environmental Professionals

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Frank B. Postma, P.G., LSP, LEP
Geologist/Senior Project Manager

Education
M.S./Water Resource Management/1989 (University of Rhode Island)
B.S./Geology/1986 (University of Rhode Island)

Registrations/Certifications
Professional Geologist—PA (1995, No. PG-00311113-G)
Licensed Environmental Professional—CT (2000, No. 348)
Licensed Site Professional—MA (2004, No. 2563)
Massachusetts Conservation Commissioner

Experience
Years with EA: 11 Total Years: 31

Mr. Postma is responsible for the management and technical direction of projects that involve the assessment and remediation of contaminated soil and groundwater. His project experience includes performance and review of tank removals; soil excavation and disposal; real estate transfer assessments; comprehensive hydrogeological site assessments involving petroleum, heavy metals, polychlorinated biphenyls, and chlorinated hydrocarbons; design and implementation of soil and groundwater remediation systems; preparation and certification of Massachusetts Contingency Plan submittals; preparation of Spill Prevention Control and Countermeasure Plans, Environmental Notification Forms, and Environmental Impact Reports; oversight of insurance claims; and design, installation, and operation of onsite remediation systems. Remedial designs have included pump and treat, high vacuum extraction, soil vapor extraction, enhanced bioremediation, bioventing, chemical oxidation, and air sparging technologies to restore impacted soil and groundwater. Mr. Postma is also responsible for the design and implementation of aquifer pumping tests and data interpretation and the preparation of environmental monitoring and sampling plans, Quality Assurance/Quality Control Plans, and Health and Safety Plans. He has designed and implemented stormwater management systems and produced numerous Stormwater Pollution Prevention Plans.

Mr. Postma's other areas of expertise include the delineation of impacted media, contaminant migration through multi-layered geologic systems, contaminant fate and transport, technical report editing, groundwater pumping systems, hydrocarbon recovery systems, and wetland delineation and permitting. He has also provided litigation support and expert witness testimony.

Professional Experience

Due Diligence—Served as Senior Project Manager for comprehensive environmental site assessments to identify recognized environmental conditions in accordance with the All Appropriate Inquiry standards promulgated by U.S. Environmental Protection Agency in November 2005 and in accordance with the American Society for Testing and Materials standards. Provided regulatory guidance to both buyers and sellers as to the implications of recognized environmental conditions and design of the appropriate additional investigative programs validate/refute releases to the environment.

Site Investigation—Served as Senior Project Manager for numerous site investigations, landfill, environmental monitoring, and indoor air projects assessments; and regulatory compliance. Managed and involved with all phases of the site investigation, remedial actions, and coordination with regulatory agencies and the public for releases of hazardous materials and petroleum.

Site Remediation—Served as Senior Project Manager for the design and implementation of remedial systems for the cleanup of petroleum and hazardous materials. The installed remedial systems include biosparging, duel-phase high vacuum extraction, enhanced fluid recover, *in situ* chemical oxidation, enhanced monitoring natural attenuation, soil vapor extraction, and groundwater pump and treat.

Third Party Insurance Review—Provided third party regulatory and technical review of environmental insurance claims. Reviewed site investigations remedial action plans and closure documentation. Provided cost estimates on the assessment and closure activities. Negotiated pricing and settlements with responding consultants. Provided litigation support for subrogation claims.

EA Project Experience

Benevento Sand and Gravel Quarry; Wilmington, Massachusetts; Benevento Companies; Project Manager—Revised and updated Stormwater Pollution Prevention Plan to reflect site modifications and comply with the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System Permit. Lead design manager for a stormwater detention basin to provide additional treatment to meet the applicable benchmark standards. Lead design manager for conceptual design and bench study for wash pond treatment system incorporating flocculation of stone dust. Managed all wetland permitting under the Massachusetts Wetland Protection Act. Prepared Spill Prevention Control and Countermeasure Plan. Prepared and received approval of the first Industrial National Pollutant Discharge Elimination System Permit for discharge of a stone wash pond to a surface waterbody in U.S. Environmental Protection Agency Region 1. Managed all Tier II Emergency Planning and Community Right-to-Know Act reporting Managed the removal of two 30,000-gallon underground storage tanks under Federal Aviation Administration Jurisdiction and closed the release from the underground storage tank system under the Massachusetts Contingency Plan. Conducted emergency response of a drill rig explosion, investigation of the impacts, and achieved a permanent solution for the release. Addressed 2 enforcement orders for violations of the Wetlands Protection Act. Conducted air and debris asbestos investigation to identify hazards associated with encroachment of solid waste onto the leasehold areas. Conducted design and permitting for a new concrete plant and a 400,000-gallon asphalt terminal.
Project Date: 2011 – Present
Project Value – $1,158,000; Contract Type – Time and Materials; EA Project No. – 1488201; EA Project Manager – Frank Postma

Due Diligence and Compliance; LS Power Equity, LLC; United States—Compiled site data from historical and facility records for a hydroelectric, gas, wind, geothermal, petroleum and coal-fired power plants to assess liabilities associated with environmental and permitting claims for the purchase and sale of the assets. Sources of information included fire insurance mapping, municipal offices, state agencies, and federal databases that were used to develop a comprehensive site model of sensitive receptors, recognized environmental conditions, and contaminants of concern. Reconnoitered site to locate additional areas of concern, conduct interviews with facility personnel, and identify locations. Analyzed the accumulated data, developed recommendations, and documented the findings in accordance with ASTM International standards. Prepared and verified facility compliance plans that included Facility Response Plans, Spill Prevention Control and Countermeasure Plans, and Stormwater Pollution Prevention Plans, Continuous Emission Monitoring System Quality Assurance/Quality Control Plans. Prepared Notice of Intents for state and national Multi-Sector General Permits. Prepared Aboveground Storage Tank Permit Application. Prepared process water discharge permit application under the Pennsylvania and Kentucky Pollutant Discharge Elimination System programs.
Project Date: 2011 – Present
Project Value – $3,224,000; Contract Type – CPM; EA Project No. – 14897XX; EA Project Manager –Frank Postma

Due Diligence and Investigation; Vesper Energy, United States—Compiled site data from historical and facility records for a proposed solar power development project. to assess liabilities associated with environmental and permitting claims for the lease of a town landfill and fallow land and a former nuclear power plant. Sources of information included fire insurance mapping, municipal offices, state agencies, and federal databases that were used to develop a comprehensive site model of sensitive receptors, recognized environmental conditions, and contaminants of concern. Reconnoitered site to locate additional areas of concern, conduct interviews with facility personnel, and identify locations. Analyzed the accumulated data, developed recommendations, and documented the findings in accordance with ASTM International standards. Conducted geophysical survey of the property to identify subservice anomalies associated with former septic systems and underground storage tanks.
Project Date: 2017 – Present
Project Value – $178,000; Contract Type – CPM; EA Project No. – 6321601, 15854XX; EA Project Manager – Frank Postma

Limit of Map Revision and Environmental Land Use Inspection and Cap Restoration; BASF; Cranston, Rhode Island—Prepared a Limit of Map Revision under the Federal Emergency Management Agency Floodplain program to facilitate the installation of an engineered cap. Managed the inspection of the environmental land use

restriction to ensure the competence of the engineering cap and vegetation plan. Facilitated the repair of erosional areas.
Project Date: 2020 – Present
Project Value – $52,000; Contract Type – CPM; EA Project No. – 1546102; EA Project Manager –Frank Postma

Site Characterization and Remediation; Webster First Federal Credit Union; Chlorinated Solvent Release; Newburyport, Massachusetts—Compiled site data from historical and facility records for former manufacturing facility to assess liabilities associated with releases to the environment. Designed drilling program that identified impacts to subsurface and groundwater from degreasing operations. Delineated the extent and degree of the impacts. Developed and implemented the closure strategy that included risk assessment, downgradient property status and deed restriction
Project Date: 2015–2016
Project Value – $37,000; Contract Type – CPM; EA Project No. – 15735XX; EA Project Manager – Frank Postma

Site Characterization and Remediation; Omni Reality; Fuel Release; Worcester, Massachusetts—Conducted geophysical survey to locate a No. 2 heating oil underground storage tank and surrounding utilities. Removed the underground storage tank and investigate a significant release the impacted abandoned storm drains, soil, indoor air, and groundwater. Delineated the horizontal and vertical extent of the release and oversaw the development of a structural plan to support a historic building to facilitate the removal of the heavily impacted soils. Prepared a decision matrix for the client outlining the multiple regulatory pathways available to reach a permanent solution.
Project Date: 2017 – Present
Project Value – $120,000; Contract Type – CPM; EA Project No. – 1559901; EA Project Manager – Frank Postma

Water System Rehabilitation and Enforcement Support; Rhode Island Airport Corporation; Block Island, Rhode Island—Project Manager who designed and implemented the water well rehabilitation program following a lightning strike. The well services approximately 500 people daily and tested positive for coliform. The Rhode Island Board of Health issued a Notice of Noncompliance and a Cease Use Order until the well could be disinfected, and the components of the water system inspected. Decontamination procedures were designed and implemented, and the system components were upgraded to prevent backflow. The procedures and upgrades were successful, the activities were documented and the well was brought back on line in 4 days.
Project Date: 2019
Project Value – 5,000; Contract Type - LS; EA Project No. – 1525816; EA Project Manager – Frank Postma

Site Investigation and Report; BASF; Cranston, Rhode Island—Compiled site data from historical and facility records for two former manufacturing facilities to identify fill data gaps associated with historical releases with the goal of obtaining Site Investigation Report Approval from Rhode Island Department of Environmental Management. Designed drilling and soil/sediment sampling program that identified impacts to soil from historical polyvinyl chloride and asbestos tile manufacturing operations. Delineated the extent and degree of the impacts and demonstrated compliance with the Rhode Island Remediation Regulations. Developed and implemented the closure strategy that included statistical analyses, capping, and stormwater management.
Project Date: 2016 – Present
Project Value – $128,000; Contract Type – CPM; EA Project No. – 1546101; EA Project Manager –Frank Postma

Landfill Monitoring; Bristol Traffic and Transportation Corporation/City of Worcester, Worcester, Massachusetts—Project Manager for the preparation and implementation of the 30-Year Post-Closure Monitoring Plan. The plan required the assessment program for groundwater, surface water, and landfill gas. A monitoring network of groundwater monitoring wells, surface water sampling points and soil gas sampling points were installed to assess the onsite and potential for offsite migration of leachate from a closed municipal solid waste landfill. The data was compiled and assessed against regulatory thresholds to determine if a corrective action plan required implementation. The results of the investigations are documented in a bi-annual report.
Project Date: 2009 – Present
Project Value – $546,000; Contract Type – CPM; EA Project No. – 1495001; EA Project Manager – Frank Postma

Landfill Monitoring; Town of Sturbridge, Sturbridge, Massachusetts—Project Manager for the bi-monthly inspection and documentation of the transfer station and landfill operation. Prepared the Corrective Action Reports to document deficiencies in the operations while devising changes to their operations to prevent future deficiencies.
Project Date: 2015 – Present
Project Value – $52,000; Contract Type – CPM; EA Project No. – 62912XX; EA Project Manager – Frank Postma

Subslab Depressurization Monitoring and Maintenance; Providence School System; Providence, Rhode Island—Project Manager for the monitoring and maintenance of a subslab depressurization system at the Alvarez High School under a consent order issued by the Rhode Island Department of Environmental Management. Monitoring system includes monthly vacuum checks, maintenance of methane detection system, blower system checks and quarterly indoor air/soil gas sampling. Data is compiled into quarterly and annual reports submitted to Rhode Island Department of Environmental Management, community leaders and citizen groups.
Project Date: 2009 – Present
Project Value – $428,000; Contract Type – CPM; EA Project No. – 15066XX; EA Project Manager – Frank Postma

Site Characterization and Remediation; Rhode Island Department of Environmental Management; Brownfields Remediation—Project Manager that compiled site data from historical and facility records for former manufacturing facility to assess liabilities associated with releases to the environment under the Brownfields grant program. Designed drilling, underground storage tank closure, and soil sampling program that identified impacts to soil from historical mill operations. Delineated the extent and degree of the impacts and demonstrated compliance with the Rhode Island School Siting Law. Developed and implemented the closure strategy that included risk assessment, capping, and stormwater management
Project Date: 2015–2017
Project Value – $37,000; Contract Type – CPM; EA Project No. – 15735XX; EA Project Manager –Frank Postma

Site Characterization and Remediation; EQ Northeast, Inc.; Residential Oil Spills and Remediation, Various Sites, Connecticut; Project Manager—Managed and oversaw the environmental assessment and cleanup of residential oil spill throughout eastern Connecticut. Identified areas of impact that required soil and groundwater characterization. Identified regulatory notification and documentation requirements. Conducted a complete characterization of the impacts, modeled the contaminant fate and transport, remediated residual impact using and determined the potential impacts to sensitive receptors and prepared and submitted closure documentation to the Connecticut Department of Energy and Environmental Protection. Remedial technologies included groundwater treatment with granular activated carbon, chemical oxidation and excavation.
Project Date: 2011–2017
Project Value – $98,000; Contract Type – Time and Materials; EA Project No. – 1523501; EA Project Manager – Frank Postma

Enforcement Support and Regulatory Compliance; Holyoke, Massachusetts; Sullivan Scrap an Iron, Inc.; Project Manager—Revised and updated Stormwater Pollution Prevention Plan to reflect site modifications and comply with the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System Permit. Managed preparation of their Spill Prevention and Counter Measure Control Plan. Addressed a U.S. Environmental Protection Agency Enforcement Order relative to hazardous materials handling and stormwater management. Addressed a Massachusetts Department of Environmental Protection Notice of Non-compliance relative to hazardous materials labeling and underground injection control registrations. Prepared City of Holyoke Stormwater Permit Application.
Project Date: 2011 – Present
Project Value – $1513,000; Contract Type – Time and Materials; EA Project No. – 1522701; EA Project Manager – Frank Postma

Enforcement Support and Regulatory Compliance; Patriot Stevedoring; Somerset, Massachusetts; Project Manager—Prepared and revised Stormwater Pollution Prevention Plan to reflect site modifications and comply with the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System Permit. Managed

preparation of their Spill Prevention and Counter Measure Control Plan. Addressed a U.S. Environmental Protection Agency Request For Information relative to hazardous materials handling and stormwater management.
Project Date: 2019 – Present
Project Value – $21,000; Contract Type – Time and Materials; EA Project No. – 1585301; EA Project Manager – Frank Postma

Due Diligence; Noble America, Inc.; United States—Compiled site data from historical society and facility records for bulk petroleum storage facilities to assess liabilities associated with environmental and permitting claims for the purchase and sale of the assets. Sources of information included fire insurance mapping, municipal offices, state agencies, and federal databases that were used to develop a comprehensive site model of sensitive receptors, recognized environmental conditions, and contaminants of concern. Reconnoitered site to locate additional areas of concern, conduct interviews with facility personnel, and identify locations. Analyzed the accumulated data, developed recommendations, and documented the findings in accordance with ASTM International standards.
Project Date: 2014 – Present
Project Value – $181,600; Contract Type – CPM; EA Project No. – 1516502; EA Project Manager – Frank Postma

Saint Luke's Country Day School; New Canaan, Connecticut; Project Manager—Managed and oversaw the environmental assessment of the Saint Luke's School for certification of a Leadership in Energy and Environmental Design complaint expansion. Identified several Recognized Environmental Conditions that required further soil and groundwater characterization. Identified groundwater conditions that required regulatory notification and documentation. Conducted a complete characterization of the impacts, modeled the contaminant fate and transport and determined the potential impacts to sensitive receptors. Prepared and submitted closure documentation to the Connecticut Department of Energy and Environmental Protection.
Project Date: 2011–2014
Project Value – $38,000; Contract Type – Time and Materials; EA Project No. – 1481901; EA Project Manager – Frank Postma

Camp Fogarty Former Shooting Berm; East Greenwich, Rhode Island; Rhode Island Army National Guard; Project Manager—Developed the Environmental Media Sampling Plan and Quality Assurance Performance Plan for investigation of a former firing range. Managed the soil sampling activities including Management Information System and discrete soil sampling via an established grid. Coordinated with laboratory and tabulated results including sampling location and depth details. Designed the background study to assess arsenic and beryllium exceedances. Summarized background study in a letter report that included Geographic Information System figures and statistical analysis.
Project Date: 2010–2011
Project Value – $112,000; Contract Type – Firm Fixed Fee; EA Project No. – 6245001/14906.01; EA Project Manager – Frank Postma

Exeter Landfill Closure; Exeter, Rhode Island; Town of Exeter; Project Manager—Project Manager responsible for the management and oversight of the landfill closure. The project required the preparation of a Remedial Action Work Plan, alternative analyses, material specifications, material verification, and installation oversight with the goal of preparing the Remedial Action Closure Report and Environmental Land Use Restriction. EA is also responsible for construction oversight of the cap installation and specification verification.
Project Date: 2009 – Present
Project Value – $58,000; Contract Type – Time & Materials; EA Project No. 1452501; EA Project Manager – Frank Postma

Cotton Shed; West Warwick, Rhode Island; Thundermist Health Center; Project Manager—Project Manager for coordination and completion of installation of an engineered barrier at this regulated site. Project Manager for design of investigation strategies to determine scope of work, prepared closure reports, subsequent investigation following unpermitted implementation of a community garden at the regulated site.
Project Date: 2012 – Present
Project Value – $25,000; Contract Type – Time and Materials; EA Project No. – 14820.01; EA Project Manager – Frank Postma

Igus, Inc.; East Providence, Rhode Island; Project Manager—Project Manager for coordination and completion of installation of an engineered barrier at this regulated site. Conducted storm sewer, ground penetrating radar, geotechnical investigations in support of a comprehensive design and plan to stabilize gypsum landfill. Completed cost estimates for remediation, performed oversight during remediation, coordinated disposal of contaminated soils, and completed summary report. Conducted annual Environmental Land Use Inspections and prepared corrective action reports.
Project Date: 2012 – Present
Project Value – $66,000; Contract Type – Time and Materials; EA Project No. – 6250601; EA Project Manager – Frank Postma

Paragon Mills.; Providence, Rhode Island; Project Manager—Project Manager for design of the investigation of the site. Developed the remedial alternatives and prepared conceptual designs of the engineered cover systems that incorporated stormwater management best management practices. Prepared the Site Investigation Report that was ultimately approved by Rhode Island Department of Environmental Management.
Project Date: 2012 – Present
Project Value – $50,000; Contract Type – Time and Materials; EA Project No. – 1537701; EA Project Manager – Frank Postma

Lincoln Lace and Braid.; Providence, Rhode Island; Project Manager—Project Manager for completion of the investigation of the site. Developed the bidding specifications and prepared the design of the engineered cover systems that incorporated stormwater management best management practices, a recreational bike path and surface water remedial system, Prepared the Remediation Closure Report and Environmental Land Use Restriction that was ultimately approved by Rhode Island Department of Environmental Management.
Project Date: 2009–2012
Project Value – $118,000; Contract Type – Time and Materials; EA Project No. – 6189105; EA Project Manager – Frank Postma

Roger Williams Park.; Providence, Rhode Island; Project Manager—Project Manager for investigation of a release of diesel fuel and gasoline from an underground storage tank at the maintenance garage of Roger Williams Park. Designed the monitoring well network and sampling program to determine the efficacy of injections of oxygen releasing compounds. Prepared quarterly status reports that were submitted to Rhode Island Department of Environmental Management. Conducted groundwater modeling to determine the fate and transport of the contamination.
Project Date: 2008–2009
Project Value – $5,000; Contract Type – Time and Materials; EA Project No. – 6189107; EA Project Manager – Frank Postma

Petco Plaza Remediation; Peabody, Massachusetts; Scangas Brothers—A fuel oil release migrated beneath the slab of the existing building at this site. Produced a Phase I Site Investigation Report and Tier Classification for the Site, classifying as Tier II. Contributed design of remedial approach and produced cost benefit analysis to determine most economically viable remedial approach. Produced Release Abatement Measure Plan to acquire Order of Conditions from City of Peabody Conservation Commission. Task Manager for field events, production of reports, and implementation of *in situ* chemical oxidation injections, which successfully destroyed the non-aqueous phase liquid and associated petroleum contamination. Completed a Release Abatement Outcome Statement indicating that the remediation efforts were successful at meeting all remediation standards.
Project Date: September 2009 – Present
Project Value – $362,795; Contract Type – CPM; EA Project No. – 147030X; EA Project Manager – Frank Postma

Massachusetts Contingency Plan Compliance; Manchester-by-the-Sea, Massachusetts; Seabreeze Variety—Senior Project Manager responsible for identifying the appropriate regulatory pathway, implementing the post-remedial monitoring program, analyses of the collected data. and providing the detailed technical review of the regulatory documentation. The site is a current petroleum dispensing facility that had opted to replace two underground storage tanks. A release of gasoline product was identified during the removal of the underground storage tanks that impacted soils and groundwater. The impacted soils were excavated following the installation of sheet piles. Soil groundwater and indoor air quality were assessed. The project will require a Massachusetts

Contingency Plan Phase I Environmental Assessment, Method 1 Risk Assessment and Response Action Outcome to close the site.
Project Date: 2009
Project Value – $34,700; Contract Type – CPM; EA Project No. – 1470001; EA Project Manager –Frank Postma

Water Infiltration; Westerly, Rhode Island; Scott Gardiner—Project Manager for the investigation of water infiltration into a residential basement following the construction of an adjacent subdivision. Conducted area surveys, reviewed proposed subdivision plan and compared them against the survey data to determine the source of groundwater infiltration. Provided findings for litigation support
Project Date: 2009
Project Value – $10,000; Contract Type – CPM; EA Project No. – 1470101; EA Project Manager – Frank Postma

Monitoring Well Abandonment; Ipswich, Massachusetts; Scangas Realty—Project Manager for the closure of monitoring wells following the completion of remedial activities associated with a release of gasoline constituents from a former service station. The monitoring well abandonment was conducted in accordance with the Massachusetts Department of Environmental Protection's Standard Reference for Monitoring Well. The abandonment involved the pressure grouting of well casings, removal of the surface components, and completing the abandonment with a concrete pad brought to grade.
Project Date: 2009
Project Value – $8,430; Contract Type – CPM; EA Project No. – 1470301; EA Project Manager – Frank Postma

Soil Sampling; New Bedford, Rhode Island; ESS Laboratory—Project Manager responsible for the field location of a sample collection grid to confirm the extent of an excavation aimed to remove polychlorinated biphenyl-laden soils at the Shawmut Landfill. Composite soil samples were collected at each sample node and submitted to a Massachusetts certified laboratory for polychlorinated biphenyl analyses via U.S. Environmental Protection Agency Method 8082. The data was analyzed and additional remedial efforts were connected to excavate all impacted soil to the regulatory threshold. The results of the remedial efforts were documented in a regulatory report.
Project Date: 2009
Project Value – $4,650; Contract Type – LS; EA Project No. – 6235901; EA Project Manager – Frank Postma

Massachusetts Contingency Plan Compliance; Lexington, Massachusetts; J.P. Carroll—Senior Project Manager responsible for identifying the appropriate regulatory pathway and negotiating the fines/language of an Administrative Consent Order with Penalty for an automotive recycling facility. The project required the registration and closure of 5 Underground Injection Control points, installation of two public water lines to abate an Imminent Hazard Condition and the assessment of soil and groundwater impacts. The source area was initially treated with *in situ* chemical oxidation. The project will require a Massachusetts Contingency Plan Phase IV Remedy Implementation Plan, Method 3 Risk Assessment, Activity and Use Limitation and Response Action Outcome to close the site.
Project Date: 2016
Project Value – $184,700; Contract Type – CPM; EA Project No. – 147002; EA Project Manager –Frank Postma

Technical Oversight; Various Insurance Claim Sites; Massachusetts and Connecticut—Provided third-party regulatory, technical, and cost evaluations for environmental insurance claims. Provided expert testimony on contaminant fate and transport for subrogation and countersuit claims. Negotiated settlement costs and developed pricing indices to standardize invoice reviews.
Project Date: 2009-Present
Project Value – 139,000; Contract Type – CPM; EA Project No.- 14736XX; EA Project Manager – Frank Postma

Site Investigation and Closure; Newport, Rhode Island; Forty 1 North—Senior Project Manager responsible for identifying the appropriate regulatory pathway and negotiating the closure strategy for a property being converted from industrial to residential. The project required the preparation of a Site Investigation Report, Public Notification, status report, and Remedial Action Closure Report.
Project Date - 2011
Project Value – $40,560; Contract Type – CPM; EA Project No. – 1444801; EA Project Manager –Frank Postma

Site Investigation and Closure; Providence, Rhode Island; Steel Yard—Senior Project Manager responsible for implementation of a multi-dimensional capping system. The project required the preparation of Site Investigation Report, Public Notification, status report and Remedial Action Closure Report as well as grant reporting on two Brownfields properties. Provided support to resolve claims made against the property by an aggrieved neighbor. Project won the John H. Chaffee Environmental Excellence Award.
Project Value – $27,200 Contract Type – CPM; EA Project No. – 1457401; EA Project Manager –Frank Postma

Due Diligence; ARGO Brownfields Property; Dorchester, Massachusetts—Teamed with an 8(a) firm to compile site data from historical society and facility records for a Brownfields property, fire insurance mapping, municipal offices, state agencies, and federal databases to develop a comprehensive site model of sensitive receptors, recognized environmental conditions, and contaminants of concern. Reconnoitered site to locate additional areas of concern, conduct interviews with facility personnel, and identify locations. Analyzed the accumulated data, developed recommendations, and documented the findings in accordance with American Society for Testing and Materials standards.
Project Value – $43,225; Contract Type – CPM; EA Project No. – 1461404; EA Project Manager – Frank Postma

Construction Oversight and Remedial System Reinstallation; Warwick Intermodal Station; Warwick, Rhode Island—Provided technical oversight and field supervision for the relocation of the duel phase extraction system. Coordinated subcontractors to and construction prime to allow for the continuous operation of the system during the construction of the train station and parking garage. Managed the contaminated soil and oversaw the reinstallation of system components.
Project Value – $143,345; Contract Type – Fixed; EA Project No. – 1461404; EA Project Manager – Frank Postma

Sub-Slab Depressurization System Operation and Reporting; Providence Public Schools; Providence, Rhode Island—Manage the operation of a multi-point subslab depressurization system installed to prevent the migration of chlorinated volatile organic compounds into a public high school. Represented the Providence School Department during Environmental Justice hearings. Documented the performance of the system and implemented system upgrades. Documented the effectiveness of the system and investigated fugitive contaminant detections. ***Project Date: 2009***
Project Value – $137,000; Contract Type – CPM; EA Project No. – 1487701

Administrative Consent Order with Penalty Compliance and Immediate Response Action; Gasoline Release; Lexington, Massachusetts—Negotiated final language of Administrative Consent Order with Penalty for waste handling, recycling, underground injection control, and release violations at an operating auto recycling facility. Registered five and closed four underground injection control points. Designed and implemented a non-aqueous phase liquid removal program and a chemical oxidation system to address source area impacts. Identified an Imminent Hazard and facilitated the connection of several private wells to the municipal water supply. Completed the Immediate Response Action Plans and status reports. Prepared the Phase I Environmental Site Assessment and Tier Classification.
Project Date: 2009
Project Value – $54,410; Contract Type – CPM; EA Project No. – 1470901

Civil Action Defense; Second Street Iron and Metals; Everett, Massachusetts—Developed and implemented a Stormwater Pollution Prevention Plan in accordance with the Multi-Sector General Permit. Developed and implemented three Best Management Practices that reduced the contaminant load in their stormwater discharge to the regulatory thresholds. Assisted in the negotiations with a citizen's rights group to settle all claims arising from violations of the Clean Water Act.
Project Date: 2010
Project Value – $24,230; Contract Type – CPM; EA Project No. – 1478001

Brownfields Remedial Cap Design, Installation and Closure Documentation; City of Providence; Providence. Rhode Island—Provided final design and cost estimates for the installation of an engineered cap for a former mill

complex. Negotiated with the regulators to expedite the regulatory permitting and meet project specific deadlines. Provided contract and construction oversight with prime contractor. Negotiated change orders on the City's behalf. Prepared all permit applications, public notifications and the Remedial Action Closure Report to complete the site remediation.
Project Date: 2009
Project Value – $114,400 Contract Type – Fixed; EA Project No. – 6189105

Military Firing Range Investigation and Background Evaluation; Rhode Island National Guard Camp Fogarty; East Greenwich, Rhode Island—Developed a Quality Assurance Performance Plan for a multi-media sampling program designed to delineate that extent and degree of impacts from an historic firing ranges. Cleared the site of unexploded ordinance and maintained strict safety protocols during the investigation. Oversaw the collection of soil and groundwater samples using discrete, composite and multi-incremental sampling protocols. Prepared Site Investigation Report documenting the findings. Designed and implemented a background study to determine the origin of arsenic impacts.
Project Date: 2010
Project Value – $121,000; Contract Type – Fixed; EA Project No. – 6245001

Immediate Response Action for Release of Perchloroethylene; Precious Metal Manufacturer; Attleboro, Massachusetts—Conducted an extensive investigation to delineate soil and groundwater impacts related to a release of perchloroethylene from a hot vapor degreaser. Installed indoor and outdoor monitoring wells, soil boring, and soil vapor points to define the extent and degree of impacts from the release.
Project Date: 2014
Project Value – $24,000; Contract Type – CPM; EA Project No. – 1517101

Other Project Experience

Emergency Response Actions; Oil Carrier Insurance; Various Sites; 2009—Emergency response actions were undertaken and completed at 26 private residences, roadways, and industrial facilities for a fuel oil insurance carrier. Conducted assessment activities to delineate remaining impacts and identify sensitive receptors following initial containment. All sites achieved regulatory closure.

Bioremediation; Gasoline Service Station; Ipswich, Massachusetts; 2007—Negotiated the final language of the ACO and timelines to bring the site back into compliance. Designed the monitoring network to determine the extent and degree of impacts related to a failure of an underground storage tank system. Developed the comprehensive conceptual site model used to select the remedial alternative. Designed and implemented the remedial additive injection plan that reduced groundwater impacts to regulatory thresholds within 12 months. Prepared the Method 3 Risk Assessment.

Immediate Response Action; Fuel Oil Release; Charlton, Massachusetts; 2007—Conducted emergency response at a release from a 275-gal fuel oil tank next to a brook and associated bordering vegetative wetland as a result of a fire. Coordinated response efforts with local and state investigative authorities. Designed and implemented the assessment plan of the soil, groundwater, surface water, and sediment. Designed and implemented a groundwater recovery and treatment system that functioned continuously for nine months. Prepared all regulatory planning and closure documentation.

Immediate Response Action; MODF Release; South Hadley, Massachusetts; 2007—Conducted the emergency response to assess and remediate a release from a pad-mounted transformer. Investigated the extent of the release in soil, groundwater, and indoor air. Directed the installation of a product recovery well and implemented an enhanced fluid recovery event to remove non-aqueous phase liquid from the groundwater. Prepared the Response Action Outcome supported with a Method 3 Risk Assessment to close the site.

Bioremediation; Gasoline Service Station; Leominster, Massachusetts; 2005—Designed the monitoring network to determine the extent and degree of impacts related to a failure of an underground storage tank system. Developed the comprehensive conceptual site model used to select the remedial alternative. Designed and implemented the remedial additive injection plan that reduced groundwater impacts to regulatory thresholds within 14 months.

Designed, permitted, and implemented a cofferdam system to remove impacted sediment from the Nashua River. The project was completed in 2005.

Immediate Response Action; Gasoline Tank Release; Melrose, Massachusetts; 2004—Conducted emergency response at a release from a 10,000-gal gasoline tank release next to a brook. Coordinated response efforts with local, state, and federal authorities. Designed and implemented the assessment plan of the soil, groundwater, surface water, and sediment. Developed the comprehensive conceptual site model used to select the remedial alternative. Directed the excavation of the tank and impacted soils. Prepared all regulatory planning and closure documentation.

Immediate Response Action, Number 2 Fuel Oil Release; North Brookfield, Massachusetts; 2004—Conducted the emergency response to contain and containerize a ruptured fuel oil tank. Investigated the extent of the release in soil and groundwater. Directed the excavation of grossly impacted soils inside the residence. Designed and implemented non-aqueous phase liquid recovery, bio-vent, bio-injection, and chemical oxidation systems. Prepared the Response Action Outcome supported with a Method 3 Risk Assessment to close the site.

Soil and Aquifer Remediation; Former Gasoline Filling Station; Danvers, Massachusetts, 2004—Delineated the extent of petroleum-related impacts and developed a comprehensive conceptual site model. Conducted pilot tests of vapor and water phase extraction to determine the appropriate remedial alternative. Designed and implemented a high vacuum extraction system that maintained a 90 percent operation time over 12 months. Reduced soil and groundwater concentrations to site-specific standards.

Environmental Impact Report; Recycling Facility; Fitchburg, Massachusetts; 2003—Acquired the population, traffic, sensitive receptor, environmental, and need data. Developed conceptual facility design that included traffic flow patterns; process flow lines; material management protocols; load inspection and testing plans; and vector, odor, and dust control plans. Designed wastewater and stormwater collection systems. Prepared environmental justice analyses. Compiled and prepared individual plans into a comprehensive draft Environmental Impact Report. Testified on behalf of the proponent and answered all public comments in the Final Environmental Impact Report. Acquired the site assignment to permit the site for the proposed activities.

Soil Remediation; Oil Distribution Facility; North Brookfield, Massachusetts; 2003—Developed the investigation program to identify and delineate the area of historic impacts from an oil distribution facility located in a residential neighborhood. Developed the comprehensive conceptual site model used to select the remedial alternative. Prepared detailed cost estimation for U.S. Environmental Protection Agency Brownfields program for client financing. Directed the excavation of 1,450 cubic yards of contaminated soil and restoration of neighboring properties. Designed and implemented a soil vapor extraction system to remediate impacted soils abutting a residential foundation. Prepared regulatory planning and closure documentation.

Due Diligence; Multi-Use Converted Mill Facility; Pepperell, Massachusetts; 2002—Compiled site data from historical society and facility records, fire insurance mapping, municipal offices, state agencies, and federal databases to develop a comprehensive site model of sensitive receptors, recognized environmental conditions, and contaminants of concern. Reconnoitered site to locate additional areas of concern, conduct interviews with facility personnel, and identify locations. Analyzed the accumulated data, developed recommendations, and documented the findings in accordance with American Society for Testing and Materials standards.

Emergency Response, Fuel Oil Tanker Rollover; Dorchester, Massachusetts; 2001—Responded to and directed the initial emergency response activities that included multi-agency coordination of the Boston Fire Department, Boston Police Department, Massachusetts District Commission, Massachusetts Department of Environmental Protection, and U.S. Coast Guard to contain the release. Developed and implemented the assessment program to delineate the extent and degree of impacts. Determined and oversaw the remedial program. Documented the results of the remedial program, and prepared the closure documentation for the site.

Spill Prevention Control and Countermeasure Plans; Transportation Company; 2001—Conducted field audits and inventoried 23 transportation and leasing facilities for compliance with U.S. Environmental Protection Agency regulation 40 CFR 112. Developed fueling, spill response, and containment protocols to address the storage and transfer of petroleum products at the facilities. Documented the procedures and follow-up audits in a Spill Prevention Control and Countermeasure Plan.

Wetland Delineation and Permitting; Wilbraham, Massachusetts—Delineated the wetland and riverfront boundaries using vegetation, hydrology, and soils. Prepared the Notice of Intent for the construction of a bus depot for submittal to the Massachusetts Department of Environmental Protection and the Wilbraham Conservation Commission.

Immediate Response Action; Gasoline Release; Manchester, Massachusetts—Delineated the extent of petroleum-related impacts and developed a comprehensive conceptual site model. Designed and implemented the assessment plan of the soil, groundwater, surface water, and sediment. Designed and implemented a groundwater recovery and treatment system that functioned continuously for 9 months. Prepared all regulatory planning and closure documentation.

Litigation Support; Subdivision Drainage Suit; Westerly, Rhode Island—Provided litigation support relative to stormwater drainage issues resulting from the development of an adjacent subdivision. Identified potential causes of groundwater infiltration into existing structure. Reviewed potential solutions to the root cause and provided recommendations to the settlement language.

Employment History

Employer—EA Engineering, Science, and Technology, Inc., PBC (Warwick, Rhode Island)
Dates of Employment—2009 – Present
Title—Client Manager

Employer—LFR, Inc.
Dates of Employment—2005-2009
Title—Senior Project Manager

Employer—Corporate Environmental Advisors, Inc.
Dates of Employment—1998-2005
Title—Project Manager

Employer—Loureiro Engineering Associates
Dates of Employment—1989-1999
Title—Field Operations Manager

List of Technical Skills and Specializations

- Petroleum and hazardous material regulations – Connecticut, Massachusetts, New Hampshire, and Pennsylvania
- Remedial design and implementation
- Septic system design and installation
- Site investigations and due diligence
- Third party insurance reviewer
- Wetland regulations and delineation

Fatima A. Burhan
Geologist

Ms. Burhan is a Geologist with 3 years of experience in environmental work, experience including 2 years of experience in due diligence and site characterization. Her technical experience includes environmental site assessments, groundwater monitoring reporting, preparation of groundwater models, drilling groundwater wells, subsurface investigations, and sampling of environmental media. She has completed work for federal, commercial, and private clients.

Ms. Burhan has experience with all Phase I investigations, remedial investigations, remedial actions, and long-term environmental monitoring.

Education
B.S. Geology /2018 (California State University Sacramento, Sacramento, California)

Specialized Training
OSHA 40-Hour Hazardous Waste Operations and Emergency Response Training; 2019
CPR and First Aid Training

Experience
Years with EA: < 1 Total Years: 3

Professional Experience

***Field Sampling and Investigations*—**Performed surface water, soil sediment, air, and groundwater sampling. Sampling experience includes soil sampling via hand auger and drilling, indoor and ambient air sampling, soil gas, sub slab, and groundwater sampling by peristaltic pumps. Carried out monitoring well drilling (mud rotary and down-the-hole), installation, and development. Carried out preliminary site investigations, review of previously investigated locations for environmental conditions and long-term environmental media monitoring efforts.

***Technical Writing*—**Experienced with writing technical memorandums; regulatory reports; and environmental, health, and safety audit reports. Wrote, edited, and compiled technical reports for groundwater monitoring submittals for the State of California CalEPA and Phase I and II Environmental Site Assessments.

***Project Management*—**Reporting, scheduling, resourcing, and technical review for several client portfolios for multiple sites for long term environmental monitoring efforts for CalEPA.

EA Project Experience

Messer Water Oil Extractor Removal, Richmond, California— Wrote up conclusion report for an oil water separator extractor. Complied information from online and in person sources. Gathered field reports and completed report within timeline.

Project Date: May 2021
Contract Type – Fixed Price; EA Project Manager – Chris VanWart

Other Project Experience

Indoor Air and Vapor Intrusion Sampling, California; Field Personnel; May 2019—Provided field support for indoor air sampling using summa canisters and sub-slab sampling for a newly constructed residential complex as part of monthly monitoring activities at the site.

Subsurface Drilling and Investigation, Washington; Sound Transit, Field Personnel; August 2019- January 2020— Provided field support for mud rotary drilling across south Seattle as a part of a large sub-surface modeling and ground water well installation project at many sites. Assisted with lab communication and drop off soil samples. Created well logs using drilling software and created stratigraphy columns using multiple software platforms.

Groundwater Sampling, Northern California; Field Personnel; January 2020—Provided field support as part of a team for groundwater sampling at a site where remediation was being carried out. Field activities included purging, low flow sampling via peristaltic pump, sample preservation via ascorbic acid, field documentation, and lab coordination.

Quarterly, Annual, and Semiannual Groundwater and Air Quality Monitoring Reports, California; Office Support, April 2019 – May 2020—Authored and reviewed monitoring reports including monitoring reports, preparing groundwater elevation and iso-concentration maps, data tables and environmental data submission on the California Geotracker. This included project reporting, scheduling, cost tracking, resourcing, etc. for projects in Northern California. Created groundwater and iso-concentration models using Geographic Information Systems. Coordinated between various teams throughout the company.

Employment History

Employer—EA Engineering, Science, and Technology, Inc., PBC (Sacramento, California)
Dates of Employment—May 2021 – Present
Title—Geologist II

Employer—Golder Associates (Sunnyvale, California)
Dates of Employment—2019-2020
Title—Geologist I

Employer—Apex Systems (Cupertino, California)
Dates of Employment—2018-219
Title—GIS Technician

List of Technical Skills and Specializations

- Sampling of environmental media using the following technologies/methodologies: low-flow, three-volume purge, passive soil gas (summa), generic grab-sampling technologies, hallow stem auger drilling, mud rotary drilling.
- Site investigation and due diligence.
- Technical writing.

Appendix F

Noise and Vibration Assessment Letter Report

DUDEK

1630 SAN PABLO AVE STE 300
OAKLAND, CA 94612
949.450.2525

April 13, 2022

Keleigh Wright
Sunridge Energy, LLC
125 E. John Carpenter Freeway, Suite 525
Irving, Texas 75062

Subject: Sunridge Energy Storage Project, Rancho Cordova (Sacramento County), California
Noise and Vibration Assessment Letter Report

Dear Ms. Wright:

Consistent with the approved scope of work, this concise draft letter report prepared for the Sunridge Energy Storage Systems Facility (Project) in Rancho Cordova (Sacramento County) includes as follows:

- Summarized measurement results from an outdoor ambient sound pressure level (SPL) survey in the vicinity of the Project.
- A presentation of predicted aggregate noise levels at nearby existing residential receptors attributed to operation of the proposed facility, as compared to ambient noise levels and applicable local noise regulations.
- A summary of modeled noise levels from construction of the Project, at the residential receptors in the immediate Project vicinity, as compared to ambient noise levels.
- A summary of calculated vibration levels from construction at the Project, at the residential receptors in the immediate vicinity of the Project, as compared to applicable standards.

In summary, and based on Project design information to date, Dudek has determined that operational noise from the proposed facility would be in compliance with local regulations at the closest adjacent residences, given incorporation of a 12-foot-high noise barrier wall along the western property boundary, as illustrated on the Project site plan (Westwood, April 2022). In addition, construction of the Project would generate noise and vibration levels that would be less than significant.

1 Introduction

1.1 Project Setting

The Sunridge Electrical Storage System (ESS) is proposed to be located adjacent to the northerly side of the Rancho Cordova Electrical Substation, along the south side of Canyonlands Drive within the eastern mid-central portion of the City of Rancho Cordova, California. Figure 1 at the end of the report illustrates the Regional Setting of the Project site, while Figure 2 illustrates the local setting. With respect to the Project site configuration and proposed improvements, Figure 3 provides the Site Plan for the proposed facility. The Project site is currently vacant. Existing residences are located to the west and northwest of the Project site on the easterly side of Preserve Way and Pawtucket Way; a neighborhood park is located to the north of the Project site, with residences adjacent to the north side of the park property. The land to the east of the Project site is undeveloped and zoned as public open space.

1.2 Acoustical Fundamentals

Although the terms may be used interchangeably in the right context, "sound" is defined as any gas or fluid pressure variation detected by the human ear, and "noise" is unwanted sound. The preferred unit for measuring sound is the decibel (dB), which by way of expressing the ratio of sound pressures to a reference value logarithmically enables a wide range of audible sound to be evaluated and discussed conveniently. On the low end of this range, zero dB is not the absence of sound energy, but instead corresponds approximately to the threshold of average healthy human hearing; and, on the upper end, 120–140 dB corresponds to an average person's threshold of pain.

The human ear is not equally responsive to all frequencies of the audible sound spectrum. An electronic filter is normally used when taking noise measurements that de-emphasizes certain frequencies in a manner that mimics the human ear's response to sound; this method is referred to as A-weighting. Sound levels expressed under the A-weighted system are sometimes designated dBA. All sound levels discussed in this report are A-weighted.

The equivalent continuous sound level (L_{eq}) is a single dB value which, if held constant during the specified time period, would represent the same total acoustical energy of a fluctuating noise level over that same time period; this is also known as the "average" sound level. L_{eq} values are commonly expressed for periods of one hour, but longer or shorter time periods may be specified. Another descriptor is maximum sound level (L_{max}), which is the greatest sound level measured during a designated time interval or event. The minimum sound level (L_{min}) is the lowest measured level and often called the floor of a measurement period. Additional common acoustical descriptors and terms that may assist the reader in framing the evaluation and discussion of noise in this report are provided in Attachment 1

1.2.1 Exterior Noise Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time; and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically "soft" sites (Caltrans 2009). Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively (Caltrans 2009). Sound levels can also be attenuated by human-made or natural barriers. For the purpose of a sound attenuation discussion, a hard or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically soft or absorptive site is characteristic of unpaved loose soil or vegetated ground.

With respect to examples of this distance-attenuation relationship for exterior noise, a 60-dBA noise level measured at 50 feet from a transformer within a paved substation site would diminish to 54 dBA at 100 feet from the source, and to 48 dBA at 200 feet from the source. This scenario is addressed by the point source attenuation for a hard site (6 dBA with each doubling of the distance). For the scenario where soft-site conditions exist between the point source and receptor, represented by a corridor of vegetation or open ground along the substation perimeter, an attenuation rate of 7.5 dBA per doubling of distance would apply; the transformer noise measured as a 60 dBA at 50 feet would diminish to 52.5 dBA at 100 feet from the source and to 45 dBA at 200 feet from the source, where soft ground with or without vegetation exists between the sound source and the receptor location.

1.2.2 Vibration Characteristics

Per the Caltrans Transportation and Construction Vibration Guidance Manual (2020), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment).

Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is expressed in inches/second (in/sec). PPV is most frequently used to describe vibration impacts to buildings but can also be used to quantify vibration annoyance potential for humans. Caltrans has established a human annoyance vibration threshold of 0.24 in/sec PPV (distinctly perceptible level) for construction-related vibration levels (Caltrans 2020). The Caltrans threshold for potential damage to residential structures is 0.5 in/sec PPV (Caltrans 2020).

1.3 Noise Regulation in Rancho Cordova

Chapter 6.68 of the Rancho Cordova Municipal Code (RCMC) addresses noise control. Section 6.68.070 (Exterior Noise Standards) establishes the maximum noise levels allowed within residential zones, and for stationary noise sources that could affect residential properties. The following noise limits are applicable to Project, as determined at the property boundary for each residential parcel in the vicinity of the Project site.

(a) The following noise standards, unless otherwise specifically indicated in this chapter, shall apply to all properties within a designated noise area:

Noise Area	City Zoning Districts	Time Period	Exterior Standard
1	RE-1, RD-1, RE-2, RD-2, RE-3, RD-3, RD-4, R-1-A, RD-5, R-2, RD-10, R-2A, RD-20, R-3, RD-30, RD-40, RM-1, RM-2, A-1-B, AR-1, A-2, AR-2, A-5, AR-5	7:00 a.m. – 10:00 p.m.	55 dBA
		10:00 p.m. – 7:00 a.m.	50 dBA

The exterior noise level in the above table is interpreted as an hourly average (L_{eq}) metric. The residences to the west, northwest, and north of the Project site are zoned RD-5, as illustrated in Figure 4 at the end of this report. As such, the Project is restricted to noise levels no greater than 55 dBA L_{eq} during the daytime and 50 dBA L_{eq} during the nighttime, at the residential property boundary closest to the Project site for each adjacent residential parcel. Because equipment will operate in the overnight period as well as in the daytime, noise control for facility operations must ensure that operational noise levels comply with the more stringent 50 dBA L_{eq} limit.

RCMC Section 6.68.090 addresses exemptions to the above noise level limits. Operation of the facility would not qualify for an exemption, but noise from construction activities would fall under the following exemption if conducted within the allowable periods.

E. Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.; provided, however, when an unforeseen or unavoidable condition occurs during a construction Project and the nature of the Project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;

2 Baseline Sound Level Survey

During April 4-5, 2022, Dudek conducted continuous 24-hour sound level measurements in the Project vicinity to characterize the existing ambient noise environment. The measurement location is depicted in Figure 5 (at the end of this report). The measurement location (depicted as M on Figure 5) is between the ESS Project site and the closest residences to the west; the measurement point is just outside the fenced rear yard of the adjacent residence.

The measurement was conducted using a SoftdB brand Piccolo II Type 2 Sound Level Meter. Type 2 sound-level meters have precision accuracy that is suitable for all types of environmental noise evaluation. The sound-level meter was calibrated before and after use in the field for these measurements. The sound level meter was configured to record data for one-hour intervals. Sound level metrics including L_{eq}. L_{max}, L_{min}, were recorded for each one-hour period. Measurement data was collected over a 24-hour period at the measurement locations Data logs for each of the three measurement locations are included in Attachment 2. Table 1 presents the results of the baseline sound level survey on an hourly L_{eq} basis. Refer to Attachment 2 for the complete data logs from the sound level meter over the 24-hour measurement period.

Table 1: Measured Sound Levels in Project Vicinity

Site	Daytime Noise Level Range dBA ($L_{eq\ hour}$)	Nighttime Noise Level Range dBA ($L_{eq\ hour}$)
Measure Location M	38- 59	34 - 50

The higher measured noise levels (represented as the upper end of the range for one-hour average levels), are attributed to vehicle traffic along Canyonlands Drive and peak electrical consumption periods (resulting in higher sound generation at the Rancho Cordova substation). The measurement point was placed at the residence which would be closest to both the existing Rancho Cordova sub-station and the proposed Project. With peak electrical consumption activity and commuter traffic present on the adjacent roadways, daytime average noise levels ranged from 38 to 59 dBA L_{eq} with only one hour when the measured noise level marginally exceeded the 55 dBA L_{eq} daytime limit. Overnight average hourly noise levels ranged from 34 to 50 dBA L_{eq} with no periods when the measured noise level exceeded the 55 dBA L_{eq} nighttime limit.

3. Project Description

The Sunridge energy storage facility would connect to existing adjacent Rancho Cordova electrical substation, allowing electricity to be drawn from the transmission lines feeding the substation during off-peak hours, stored in on-site battery systems, and fed back into the transmission lines during high demand (peak) periods. Major Project components include Tesla Megapacks (a complete energy storage solution including direct current [DC] batteries, bidirectional inverter, thermal management system, and a Tesla Site Controller), low-to-medium voltage transformers, and a step-up transformer within the on-site sub-station

The facility would include eighty-six pairs of Megapacks (172 total megapacks). The outer dimensions of the Megapack containers are 23'5" width, 5'3" depth, and 8'3" height. A pad-mounted low-to-medium voltage transformer will generally be installed at the end of each two pairs of parallel Megapacks. The pad-mounted transformers adjacent to the Megapacks are assumed to comply with National Electrical Manufacturers Association (NEMA) standards for a medium voltage transformer, not to exceed a sound level generation of 72 dBA PWL. The high voltage main power step-up transformer will be 110 mega volt ampere (MVA) with a connection voltage of 220kV; the NEMA standards for this capacity transformer dictate a sound level generation not to exceed 97 dBA PWL.

Ultimately, the storage capacity of the facility could be augmented with 86 clusters each of six Augmentation Megapacks, one cluster placed adjacent to the end of each Megapack pair. Noise modeling was performed for this ultimate site configuration, with the inclusion of the 86 Augmentation Megapacks. Refer to Figure 3 for the detailed Site Plan Layout which indicates the configuration of major components described above.

4 Operational Noise Prediction

4.1 Methodology

Prediction of operation noise attributed to the Project involved creation of a sound propagation model using a Dudek proprietary Excel-based software tool. Dudek NoisePro is used for calculation, presentation, assessment, and prediction of environmental noise. Estimated sound emission from the Megapacks and Augmentation Megapacks (i.e., the top-mounted cooling fan units), medium-voltage transformers, and step-up transformer were entered into the Dudek NoisePro model. The outdoor noise propagation formulas in NoisePro follow the International Organization of Standardization (ISO) Standard 9613-2, "Attenuation of Sound During Propagation Outdoors, Part 2: General Method of Calculation" (ISO 1996).

For the Tesla Megapacks, the primary noise generation comes from the operation of the cooling fans. The cooling fans do not run continuously, but instead are activated only if needed to exhaust excess heat when outside air temperatures are elevated. For a proposed Megapack installation outside Houston Texas, Tesla conducted a careful evaluation of climatic conditions in January and July and correlated this to the operation of fans throughout a 24-hour representative day in January and July. Refer to Attachment 3 for a summary of the fan usage study. Because the 40% fan level is the most common throughout a day (with rare instances of higher fan use), the 40% fan level is used for the modeling.

A cluster of six (6) Augmentation Megapacks would provide storage capacity similar to one Megapack, and therefore each cluster of 6 Augmentation Megapacks is conservatively estimated to generate the equivalent sound level of one Megapack.

Project features are input as sound sources or sound barriers in the NoisePro model space and defined with the following assumptions and available Project design information (component locations indicated on Figure 3):

- Megapack cooling systems – The Tesla team provided one-third octave band center frequency (1/3-OBCF) sound power levels for each of six sound intensity measurement facings (originally based upon a 95% operating capacity). These sound power levels from each of the six facings for a single fan were logarithmically added together to calculate the total sound power for a single fan; then the results for eleven identical fans were logarithmically added together to yield A-weighted noise emission levels for a single Megapack. The sound generation level from the Megapack is actually dependent upon the operating speed of the cooling fan units; Tesla provided sound power level data for six discrete fan operating speeds including 95%, 90%, 80%, 70%, 60% and 40% (Refer to Attachment 4 for Tesla Megapack sound power level data documentation). Table 2 summarizes the sound power level data provided by Tesla, for use in the NoisePro model. The sound power level was depicted in the model as a horizontal area source no more than a few inches above the upper surface of a solid "building" block representing a Megapack container. Because of the use pattern data of the cooling fans from several megapack installation sites, 40% fan capacity was found to be the most common level and is used for the NoisePro modeling. The Megapack sound power data was also applied to each cluster of 6 Augmentation Megapacks.

Table 2: Modeled Source Sound Power Level (PWL, dBA) for Megapack According to Fan Operating Speed

Source: 11-Fan Megapack Cooling Area	Fan Operating Speed by Percentage				
	90%	80%	70%	60%	40%
PWL dBA	97.7	94.6	92.6	89.8	84.1

- Medium-voltage transformers – Situated near each Megapack (or pair of such units) is a ground-mounted transformer with A-weighted sound power levels appearing in Table 3, again correlated to each of the capacity operating levels of the Megapacks. The sound power for each transformer at 90% operation was based on a Tesla selection of 64 dBA (sound pressure level at one meter) from a NEMA TR-1 table. Octave-band center frequency (OBCF) detail for this transformer noise emission level was estimated with algorithms and dB adjustments appearing in the *Electric Power Plant Environmental Noise Guide* (Edison Electric Institute 1984). These transformer sound power levels were input as horizontal area sources (roughly consistent with the footprint of the equipment on the available site plan) at approximately 6 feet above grade.

- Sub-station transformer – The A-weighted sound power level of the sub-station (step-up) transformer was estimated with the same aforementioned guidance from the Edison Electric Institute, using 110 MVA as the anticipated load at full Project site capacity. The sound power for each transformer at 90% operation was based on a Tesla selection of 89 dBA (sound pressure level at one meter) from a NEMA TR-1 table. Octave-band center frequency (OBCF) detail for this transformer noise emission level was estimated with the same algorithms and dB adjustments appearing in the aforementioned *Electric Power Plant Environmental Noise Guide*. The GSU transformer sound power was input to the model space as a horizontal area source (roughly consistent with the footprint of the equipment on the available site plan) at approximately 6 feet above grade.

Table 3: Modeled Source Sound Power Levels (PWL, dBA) for Transformers

Source	Operating Level	Octave Band Center Frequencies (A-weighted PWL OBCF, dB by Hertz [Hz])									Overall PWL
		31.5	63	125	250	500	1K	2K	4K	8K	
Medium-voltage Transformer (4 MVA)	90%	30	49	61	63	69	66	62	57	48	72.4
Substation Transformer (110 MVA)	90%	55	74	86	88	94	91	87	82	73	97.4

- Sound Barrier (Noise Wall) – The site plan indicates a noise wall along the westerly side of the facility, between the facility and existing residences. Modeling confirmed that the sound barrier must be 12 feet in height to ensure facility operational noise at the closest residences would be in compliance with RCMC Section 6.68.070.

Calculation parameters that establish how the NoisePro model predicts combined noise level from these above-listed Project sources include as follows:

- Sound propagation per International Organization of Standardization (ISO) 9613-2 (ISO 1996);
- Default ground acoustical absorption coefficient = 0.5 (on a scale of 0 = reflective, 1 = absorptive); and.
- Zero order of reflection.

4.2 Results

Figure 5 indicates the facility boundary and also depicts the sound level measurement location for the ambient noise level survey (M), and a set of 5 modeled receptor locations (R1 – R5) in the NoisePro model space, with a receiver at regular intervals along the row of existing residences closest to the proposed facility. These modeled receptor positions are intended to represent Project operational sound levels at these existing residences, for comparison to RCMC Section 6.68.070 limits.

As described in the Megapack discussion (precedent to Table 2), NoisePro was run with reported sound power levels for fan operating speed of 40%, since this is the most frequent use level that has been shown to occur at several Tesla Megapacks. This model run yielded average sound levels (dBA L_{eq}) at each of the five modeled receiver locations.

Figure 6 graphically represents the noise model results; it not only identifies the modeled sound level at the five selected residences, but also provides noise contours extending outward from the proposed ESS to illustrate the hourly noise level from operation of the Project (i.e., the most common 40% fan utilization from all the included Megapacks and transformers).

4.3 Conclusions – Operational Noise Levels

This noise study includes an analysis of noise emission from operation of the total suite of equipment at the facility at 40 percentage Megapack fan operational levels corresponding to usage histograms developed by Tesla. As described in Section 3.1, Dudek modelled operation noise levels at each studied receiver from an operational level of 40%. In addition, the NoisePro software enables a user to graphically present the predicted sound pressure levels over a defined horizontal plane, such as illustrated in Figure 6. The legend in the bottom right corner of Figure 6 defines a 5-dB range of comparable sound levels for each depicted color. The superposition of the aggregate Project predicted noise emission over the Project site and its surroundings provides the reader a visual understanding of how loud the Project may be at a geographic location (in addition to the selected 5 modeled receivers) from Project operations.

Of particular note on Figure 6 is that the existing adjacent residences are located within the 45-50 dBA L_{eq} contour, indicating that exterior noise exposure from Project operations would be less than 50 dBA L_{eq} (the most restrictive noise limit under RCMC Section 6.68.070) Table 4 summarizes these estimated Project-attributed operational hourly L_{eq} values at these five offsite locations.

Table 4: Predicted Aggregate Operation Noise (dBA L_{eq}) at Modeled Receptors

Modeled Scenario	R1	R2	R3	R4	R5
ESS Operational Noise Level	49	49	49	48	48

In each case, the predicted operational noise level would fall below the applicable maximum allowable nighttime noise limit, thereby also complying with the less stringent daytime limit. As such, the noise from the ESS facility would comply with RCMC Section 6.68.070.

Substitution of Equipment

Integrated battery storage systems similar to the Tesla Megapack technology are available from other manufacturers today, with the possibility of further options from additional manufacturers in the future. Consequently, implementation of the Project could potentially move forward with the selection of an alternate battery storage system from a different manufacturer than Tesla. The reference sound level used for the Tesla Megapack in this report (at 40% fan capacity) is 76 dBA at 1 meter from the Megapack container. If a containerized battery storage system with integrated inverter would have a sound level equal to or less than 76 dBA at 1 meter from the container, and the same configuration of battery

storage containers is used, the sound levels quantified in this report would remain accurate for the substitute equipment. If the sound levels for a battery storage container would be greater than this level, the report conclusions would not be valid, and the new battery storage equipment and site layout configuration would need to be evaluated to determine the resultant composite noise levels at the existing residences.

4.4 Recommendations – Operational Noise Levels

Modeling of facility equipment operations noise levels on the basis of capacity characteristics represented by expected climatic conditions and corresponding Megapack fan utilization and transformer loadings, concludes that the facility noise levels would fall below the exterior noise exposure limits applicable to residential land use at the existing adjacent residential properties. However, these modeling results are based upon the incorporation of a 12-foot-high solid sound barrier (noise wall) in the location depicted on the site plan by Westwood (April 2022). It is therefore recommended that civil engineering design plans be augmented with specifications to comprehensively address the 12-foot-high solid sound barrier (noise wall), including foundation elements necessary for adequate support of the wall element.

The Project as proposed and acoustically studied herein would be expected to achieve compliance with the requirements of RCMC Section 6.68.070. Other than provision of details regarding the 12-foot-high noise wall in the engineering design plans, no additional noise control features or methods would be required or recommended.

5 Construction Noise

Construction of the proposed Sunridge energy storage facility would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. The range of maximum noise levels for various types of construction equipment is depicted in Table 5. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower levels.

Table 5. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dB) – 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, derrick	88
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85

Table 5. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dB) – 50 feet from Source
Jack hammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Scraper	89
Truck	88

Source: FHWA 2011a, 2011b. **Notes**: dB = decibel.

5.1 Construction Equipment Inventory

The California Air Resources Board CalEEMod (California Emissions Evaluation Model) was used to identify the construction equipment anticipated for development of a graded pad area and access roads of the proposed size, including the setting of modules or trailers by crane. The equipment list is based upon the Project description, with construction area of approximately 2 acres, CalEEMod (Version: CalEEMod.2016.3.1) identified the following anticipated equipment for each phase of the Project construction.

Table 6. Construction Equipment Per Phase

Construction Activity	Site Preparation	
Equipment Needed	Dozer	Backhoe
Construction Activity	**Grading**	
Equipment Needed	Grader	Dozer
	Backhoe	Excavator
Construction Activity	**Building Construction**	
Equipment Needed	Forklift	Crane
	Backhoe	Generator
Construction Activity	**Paving**	
Equipment Needed	Paver	Dump Truck
	Roller	
Construction Activity	**Architectural Coating**	
Equipment Needed	Air Compressor	

5.2 Construction Noise Assessment

With the noise sources identified above, a noise analysis was performed using a model developed under the auspices of the Federal Highway Administration called the Roadway Construction Noise Model (RCNM) (FHWA 2011b). Input variables for RCNM consist of the receiver / land use types, the equipment type (i.e., backhoe, crane, truck, etc.), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of hours the equipment typically works per day), and the distance from the sensitive noise. Refer to Appendix E for the inputs used in the RCNM model, as well as results.

The various construction equipment types and quantities (as described above) were used for this analysis. The RCNM has default duty cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty cycle values were utilized for this analysis.

Noise-sensitive land uses in the vicinity of the Project include residences on properties to the west/northwest of the Project site. The closest off-site residence is located approximately 275 feet from the closest boundary of the proposed Project site. A playground area within Sunridge Park, to the north of the Project, is located approximately 410 feet from the closest boundary of the Project site. Therefore, the construction noise assessment is focused on noise levels that would occur at the distance of the closest off-site residences (i.e., at 275 feet and 410 feet), construction noise levels at greater distances from the site would be less.

Using the provided construction information and the distance identified for the closest receivers, the RCNM construction noise model was used to predict noise from on-site construction activities. The results are summarized in Table 7 (see Attachment D for complete results).

Table 7. Construction Noise Summary of Results (dBA L_{eq})

Receiver Location/ Description	Land Use	Construction Noise Level (dBA L_{eq}) by Construction Phase				
		Phase 1: Site Preparation	Phase 2: Grading	Phase 3: Building Construction	Phase 4: Paving	Phase 5: Architectural Coating
Nearest Off-Site Receivers West (275 feet)	Residential	66	70	70	63	59
Nearest Off-Site Receivers North (410 feet)	Park	62	66	66	60	55

The Project would be required to comply with RCMC Section 6.68.090 by adhering to the following construction restrictions:

- Construction noise levels must comply with the nighttime residential limit of 50 dBA L_{eq} for any work conducted in the period between 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.

Construction conducted during the daytime (6 a.m. to 8 p.m. weekdays and 7 a.m. to 8 p.m. on Saturday) is not subject to a noise level limit. Due to the nature of the Project design (i.e., primarily the placement of containers and other equipment on small individual concrete pads, trenching for electrical cabling) it is not anticipated that construction would involve activities that need to extend into the overnight period. Therefore, the Project construction should be able to abide by the construction schedule limitations of RCMC Section 6.68.090.

With regard to construction noise levels in comparison to ambient noise levels, Caltrans *Traffic Noise Analysis Protocol* identifies a 12 dBA L_{eq} increase significance threshold for assessment of temporary noise level increases (i.e., construction-related noise) (Caltrans 2013). If the Project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of greater than 12 dBA L_{eq}, then the Project construction noise level increases would be considered a potentially significant impact. Although the Caltrans recommendations were specifically developed to assess traffic noise impacts, the 12 dBA L_{eq} substantial noise level increase threshold is often used in California to address noise level increases with the potential to exceed existing conditions.

In reviewing the results in Table 7, the average construction noise levels at the closest residence (west of the proposed Project site) would range from 59 to 70 dBA L_{eq}. These noise levels are considered to be a peak exposure, applicable not more than 10-15% of the total construction period, only while the construction activity is taking place along the westerly construction site boundary (i.e., closest to the nearest off-site receiver). Average noise levels at the playground within Sunridge Park to the north would range from 55 to 66 dBA L_{eq} (which also represent the peak levels while construction is occurring along the northern Project site boundary, anticipated to occur not more than 10-15% of the total construction period). With average construction noise levels during grading and other typical construction activities ranging up to 70 dBA L_{eq} (hourly) at the closest residences, even the closest residences would experience a temporary construction noise increase not exceeding 11 dBA over ambient (refer to Table 1). Therefore, construction noise levels as compared to daytime ambient levels would result in a less than significant temporary noise impact.

5.3 Conclusions – Construction Noise Levels

Although the adjacent residences and park playground could be exposed to construction noise levels that are noticeable compared to ambient levels, and therefore could result in potential annoyance, the exposure would be short term, would occur during the less sensitive daytime period, and would cease upon proposed Project construction completion. In addition, the noise level increase would also remain below the 12 dBA threshold of significance for temporary construction noise. Therefore, construction noise would remain less than significant, and would not be anticipated to result in a nuisance or to lead to sleep interference.

6. Construction Vibration

Construction activity can result in varying degrees of ground vibration at local receptors, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data and methods published by Caltrans (2020). Ground vibration levels associated with various types of construction equipment are summarized in Table 8.

Table 8: Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: Caltrans 2020

Using the vibration source level of construction equipment provided in Table 8 and the construction vibration assessment methodology published by Caltrans (2020), it is possible to estimate the Project vibration impacts. To calculate vibration levels at a given distance associated with construction vibration Caltrans provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ The closest residential receivers are at a distance of approximately 275 feet from the construction boundary. At a distance of 275 feet, the vibration level from a large bulldozer would be reduced to approximately 0.002 in/sec PPV. Vibration levels from other equipment listed in Table 8 would be lower than this at 275 feet. The calculated vibration level of 0.002 in/sec PPV at the closest residences would be well below the human annoyance threshold of 0.2 in/sec PPV, and even further below the residential structure damage of 0.5 in/sec PPV. Moreover, the impacts at the site of the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but rather will occur only during the times that heavy construction equipment is operating adjacent to the westerly Project site perimeter. Therefore, the Project-related vibration impacts would remain less than significant during the construction activities at the Project site.

7 References

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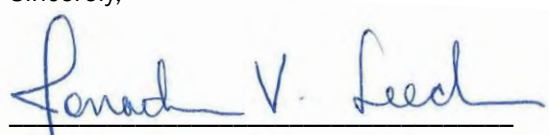
Rancho Cordova Municipal Code

8 Closing

Dudek trusts that the results and findings presented in this letter report meet your needs for the Project at this time and represents appropriate completion of the approved scope of work.

Sincerely,



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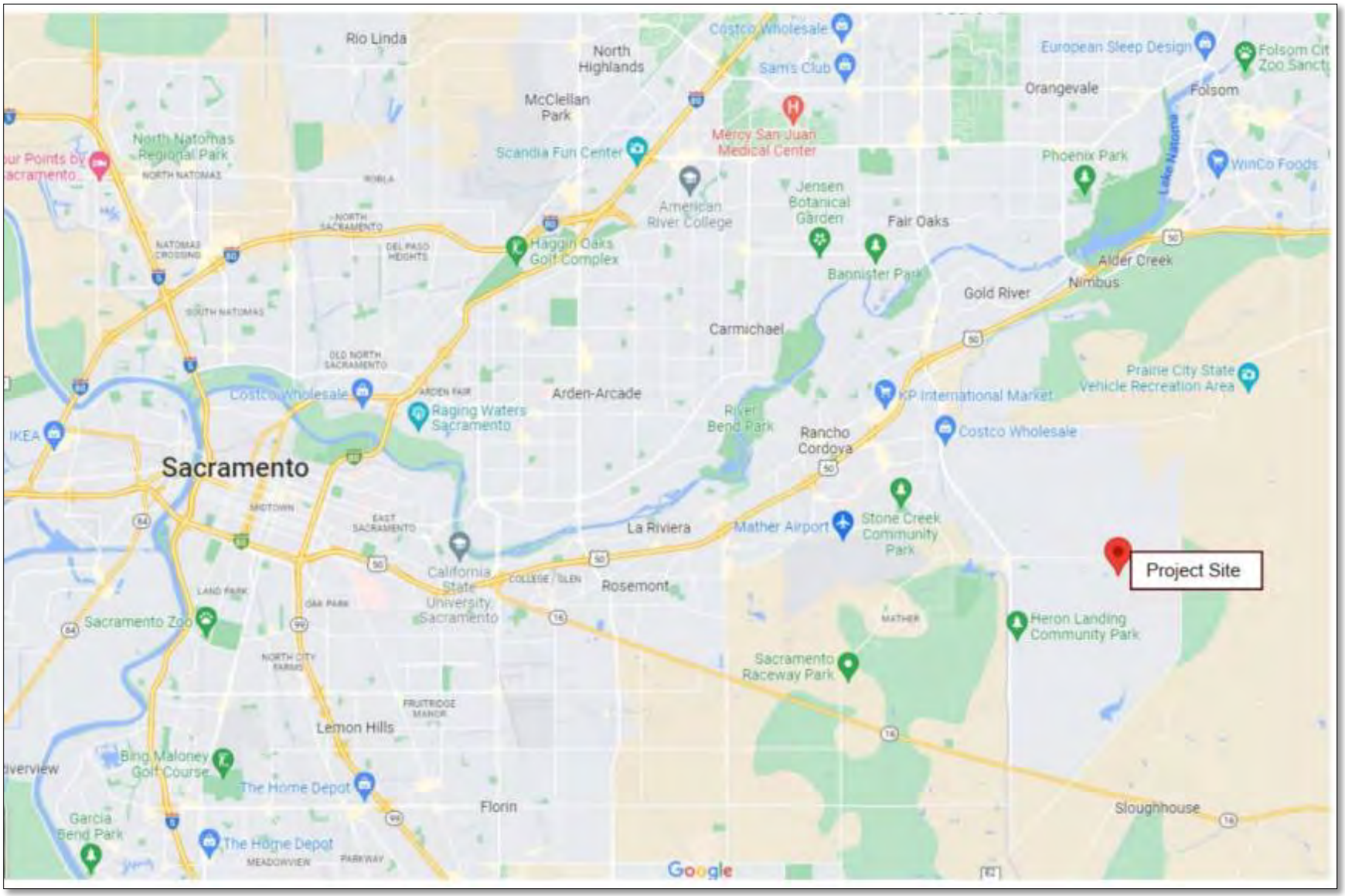
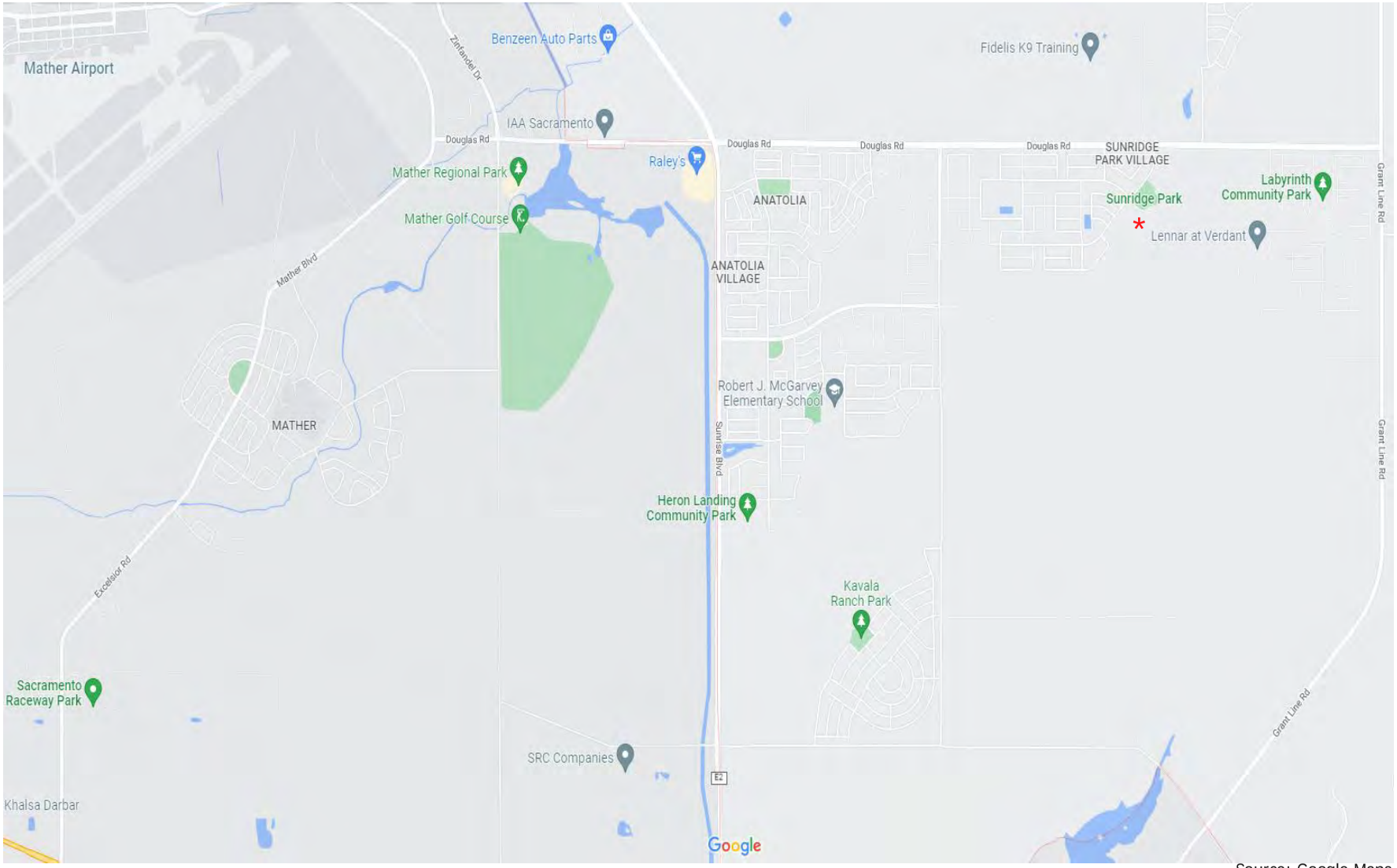


Source: Google Maps

FIGURE 1

Regional Setting



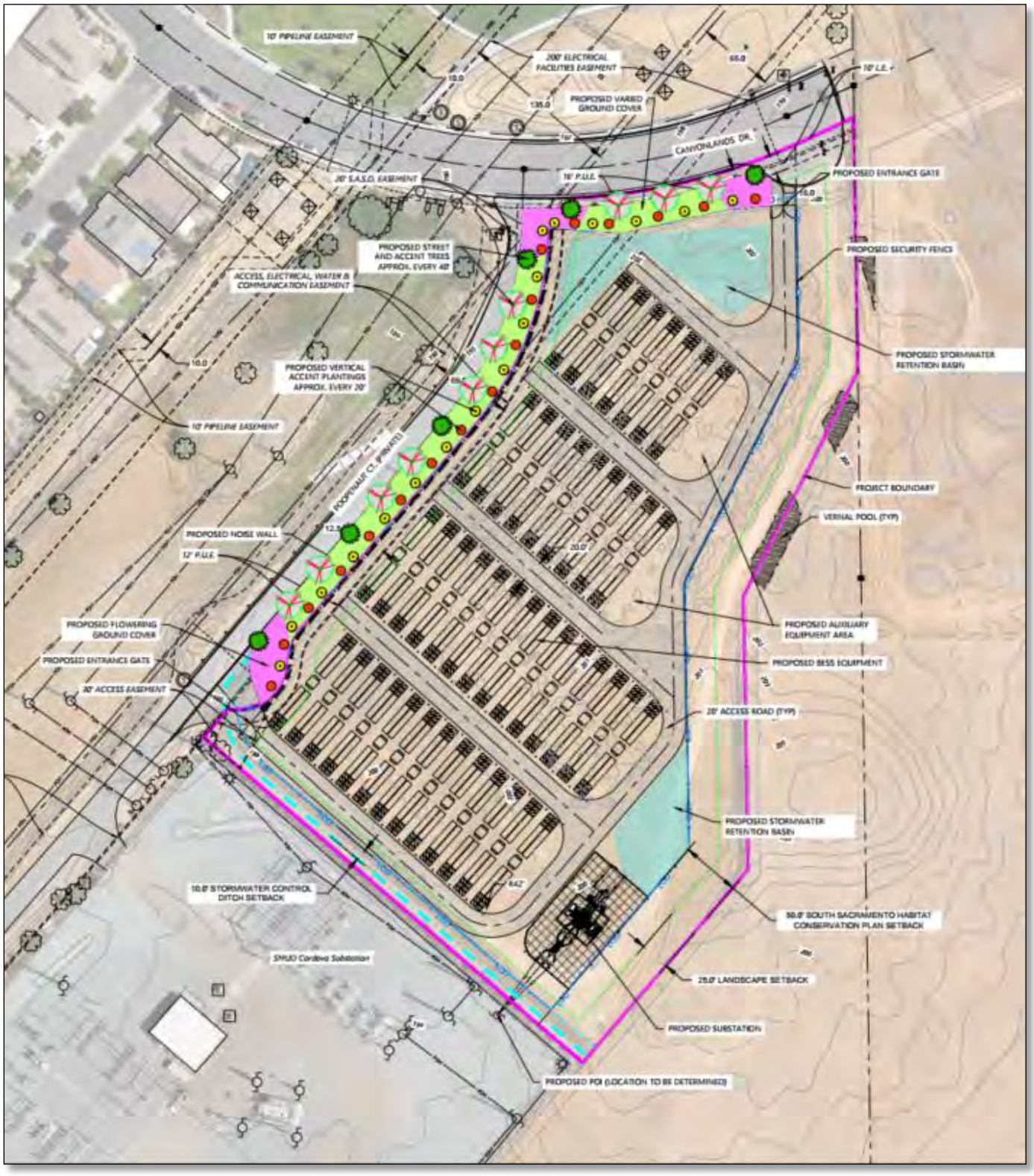
Source: Google Maps

LEGEND * Project Site

FIGURE 2

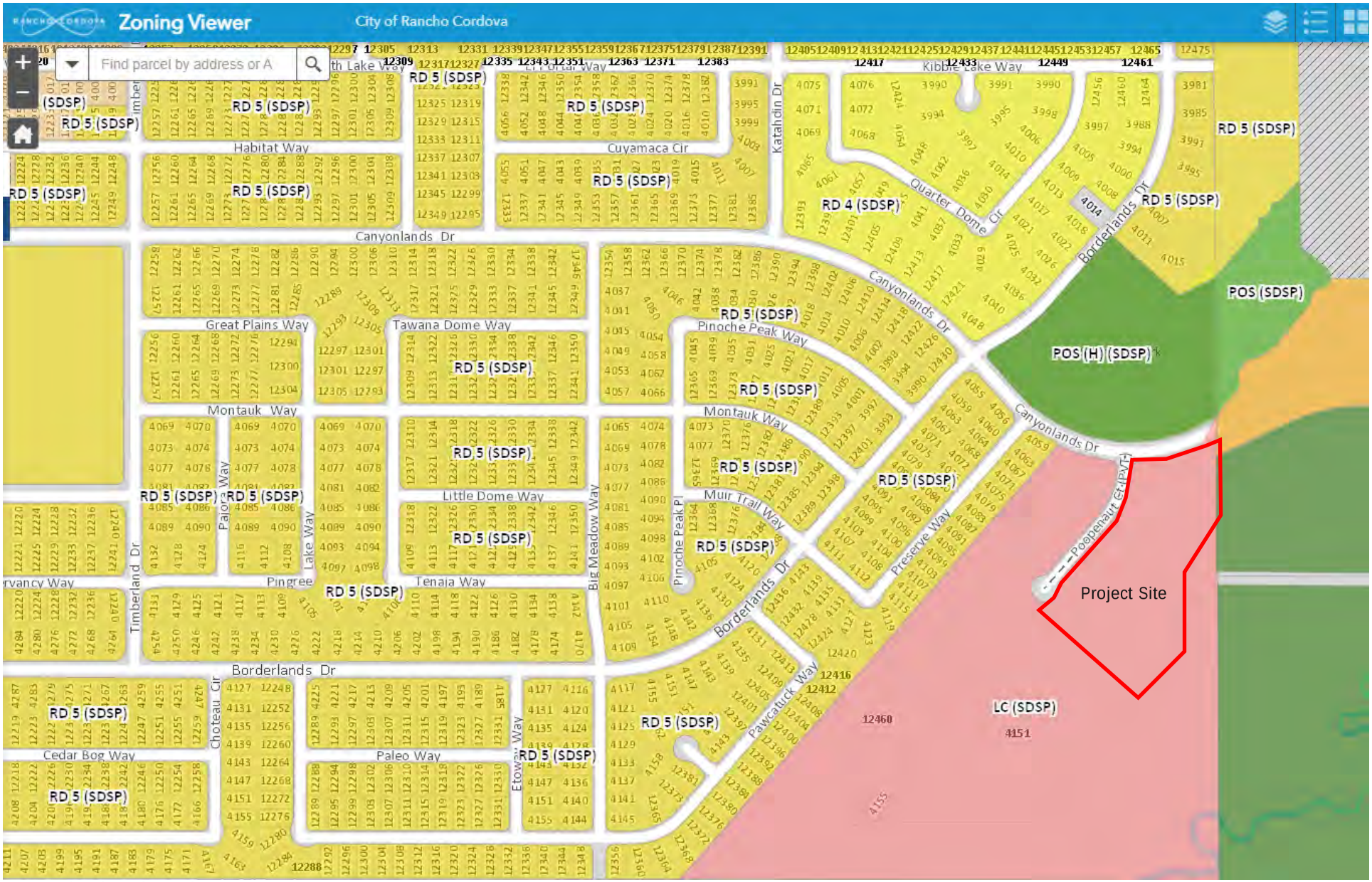
Sunridge BESS Noise Assessment

Regional Setting



Source: Westwood Professional Services, April 2022

FIGURE 3
Site Plan



Source: City of Rancho Cordova

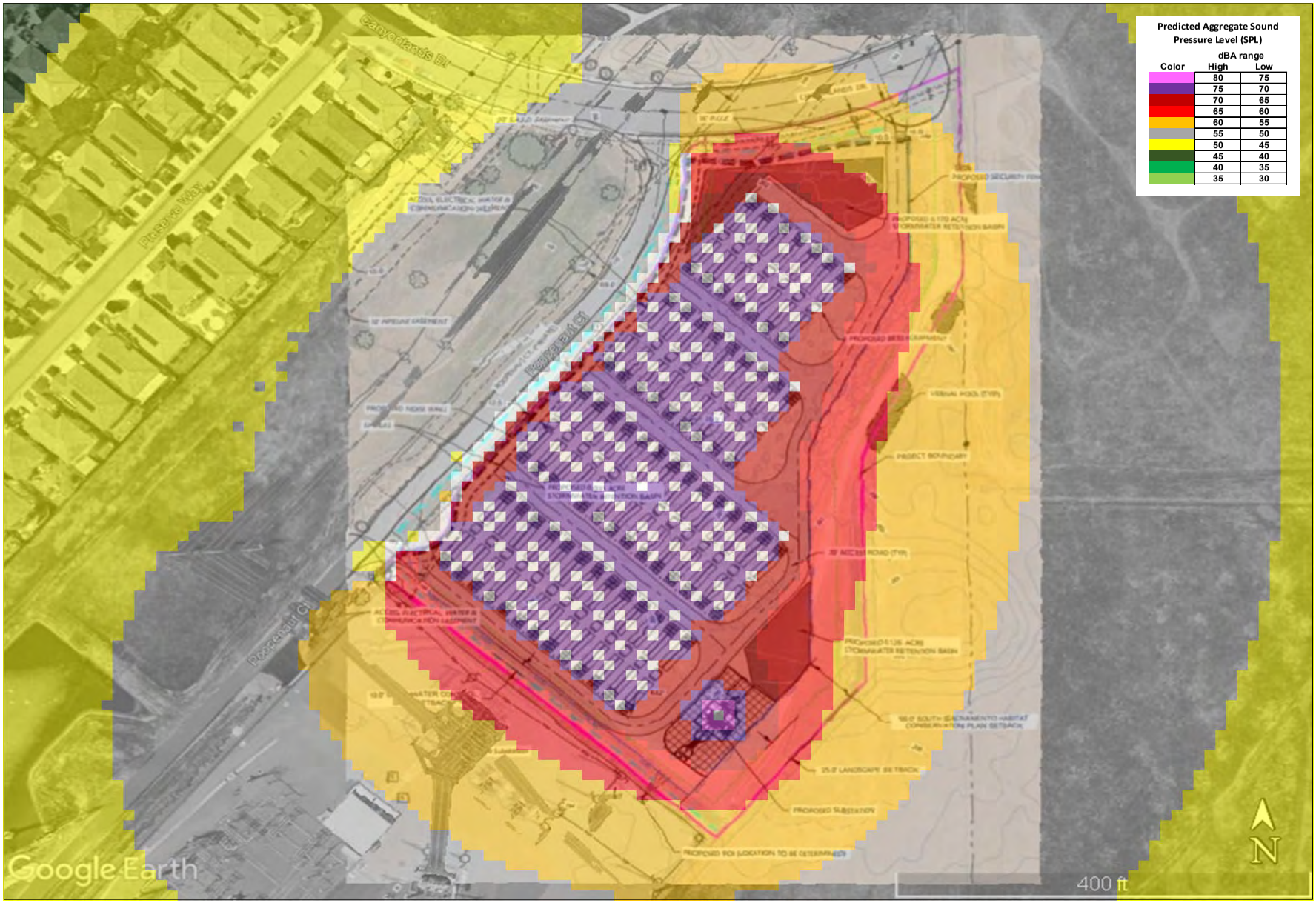
FIGURE 4
Rancho Cordova Zoning

LEGEND

- Project Site Boundary
- M — Noise Measurement Location
- R# — Modeled Noise Receiver Locations

FIGURE 5

Noise Measurement and Modeled Receiver Locations



SOURCE: Dudek 2022

DUDEK

0 105 210 Feet

FIGURE 6

MEGAPACK AND TRANSFORMER NOISE LEVELS

Sunridge Battery Energy Storage Project

ATTACHMENT 1

ACOUSTIC TERMINOLOGY

Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
A-Weighted Sound Level (dBA)	The sound pressure level (SPL) in decibels as measured on a sound level meter (SLM) using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the measured sound in a manner similar to the frequency response of the average healthy human ear, and thus correlates well with assessment of environmental noise in a community setting where noise-sensitive receptors may be present.
Decibel (dB)	The unit for expressing SPL and is equal to 10 times the logarithm (to the base 10) of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micropascals.
Equivalent Sound Level (L_{eq})	The value corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is designed to average all of the loud and quiet sound levels occurring over a time period.
Octave Band Center Frequency (OBCF)	Commonly discussed octave frequency bands are: 31.5 Hz, 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz and 16 kHz. Each of these "center frequencies" represents an octave band defined by a lower band limit equal to 0.707 times the center frequency, and an upper band limit equal to 1.414 times the center frequency.

In addition to the above key terms, the following paragraphs provide a primer on relevant noise terminology and fundamental acoustical concepts that should help frame the discussion of measured outdoor ambient noise levels and corresponding metrics and statistical values used in this technical memorandum.

Sound, Noise, Acoustics

Sound is oscillation that travels through the air or another medium, entailing a process that consists of three components: the source, the path, and the receiver. All three components must be present for sound to exist and be perceived. Without a source to produce sound, there is no sound. Likewise, without a medium to transmit sound pressure waves, there is no sound. Finally, sound must be received; a hearing organ, sensor, or object must be present to perceive, register, or be affected by sound or noise. In most situations, there are many different sound sources, paths, and receptors rather than just one of each. Acoustics is the field of science that deals with the production, propagation, reception, effects, and control of sound. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired.

Sound Pressure Levels and Decibels

The amplitude of a sound determines its loudness. Loudness of sound increases with increasing amplitude. Sound pressure amplitude is measured in units of micro-Newton per square meter, also called micro-Pascal. One micro-

Pascal is approximately one-hundred billionths (0.00000000001) of normal atmospheric pressure. The pressure of a very loud sound may be 200 million micro-Pascals, or 10 million times the pressure of the weakest audible sound. Because expressing sound levels in terms of micro-Pascal would be very cumbersome, sound pressure level in logarithmic units is used instead to describe the ratio of actual sound pressures to a reference pressure squared. These units are called Bels. To provide a finer resolution, a Bel is subdivided into 10 decibels, abbreviated dB.

Sound pressure level alone is not a reliable indicator of loudness. The frequency, or pitch, of a sound also has a substantial effect on how humans will respond. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited not only in the range of audible frequencies but also in the way it perceives the sound in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz) and 5,000 Hz, and it perceives a sound within that range as more intense than a sound of higher or lower frequency with the same magnitude. To approximate the frequency response of the human ear, a series of sound level adjustments is usually applied to the sound measured by a sound level meter. The adjustments (referred to as a weighting network) are frequency-dependent.

A-weighted Sound Level

The A-scale weighting network approximates the frequency response of the average healthy ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. All sound levels discussed herein are A-weighted (dBA) unless otherwise noted.

Under controlled conditions in an acoustics laboratory, the trained, healthy human ear is able to discern changes in sound levels of 1 dB when exposed to steady, single-frequency signals in the mid-frequency range. Outside such controlled conditions, the trained ear can detect changes of 2 dB in normal environmental noise. It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of 3 dB in outdoor environments. A change of 5 dB is readily perceptible, and a change of 10 dB is perceived as twice or half as loud. As discussed above, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a road) would result in a barely perceptible change in sound level.

Noise Level Descriptors

Additional units of measure have also been developed to evaluate the long-term characteristics of sound. The equivalent sound level (Leq), is also referred to as the time-average sound level. It is the equivalent steady state sound level which in a stated period of time would contain the same acoustical energy as the time-varying sound level during the same time period. The 1-hour A-weighted equivalent sound level, Leq1h, is the energy average of the A-weighted sound levels occurring during a 1-hour period and is commonly the basis for community noise ordinance criteria.

People are generally more sensitive and annoyed by noise occurring during the evening and nighttime hours. Thus, another noise descriptor used in community noise assessments, the Community Noise Equivalent Level (CNEL), was introduced. The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted sound level. The CNEL accounts for the increased noise sensitivity during the evening hours (7:00 p.m. to 10:00

p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.) by adding 5 dB and 10 dB, respectively, to the average hourly sound levels during these periods.

Sound Propagation

Sound propagation (i.e., the passage of sound through a gaseous or fluid medium from a noise source to a receiver) is influenced by several factors. These factors include geometric spreading, ground absorption, and atmospheric effects, as well as shielding by natural and/or man-made features. Sound levels are attenuated at a rate of approximately 6 dB per doubling of distance from an outdoor point source due to the geometric spreading of the sound waves. Additional sound attenuation can result from man-made features such as intervening walls and buildings, as well as natural features such as hills and dense woods. Atmospheric conditions such as humidity, temperature, and wind gradients can temporarily either increase or decrease sound levels. In general, the greater the distance the receiver is from the source, the greater the potential for variation in sound levels due to atmospheric effects.

ATTACHMENT 2

AMBIENT NOISE MEASUREMENT DATA

Attachment 2

Long-Term 24 Hour Continuous Noise Monitoring

Project: **Sunridge Storage**
Date: April 04, 2022 to April 05, 2022
Site: LT-01

Hour	Leq	Lmax	L50	L90
15:00	47.3	60.0	43.9	39.2
16:00	47.4	64.0	44.2	38.9
17:00	47.6	64.0	43.8	39.8
18:00	48.3	68.9	45.6	41.4
19:00	47.8	62.6	45.3	39.4
20:00	41.8	63.8	37.0	34.7
21:00	38.1	52.7	36.0	34.5
22:00	38.4	64.2	36.2	34.4
23:00	38.2	58.8	36.0	33.9
0:00	36.7	52.9	35.5	33.3
1:00	35.2	42.7	34.6	33.1
2:00	34.3	53.2	33.8	33.0
3:00	35.2	42.4	34.2	33.3
4:00	40.1	60.7	36.7	34.6
5:00	39.4	56.5	37.5	35.0
6:00	50.5	60.2	48.7	43.0
7:00	52.1	66.6	50.4	46.0
8:00	50.5	68.4	46.4	41.7
9:00	50.8	67.8	46.3	42.1
10:00	58.6	78.6	46.1	41.8
11:00	47.9	65.2	45.4	41.9
12:00	48.2	61.9	46.4	42.9
13:00	47.3	61.9	44.9	41.3
14:00	46.3	59.6	44.5	40.3

Lowermost Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	38.1	52.7	36.0	34.5
Nighttime (10 p.m. - 7 a.m.)	34.3	42.4	33.8	33.0

Average Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	50.4	64.4	44.4	40.4
Nighttime (10 p.m. - 7 a.m.)	42.5	54.6	37.0	34.8

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	58.6	78.6	50.4	46.0
Nighttime (10 p.m. - 7 a.m.)	50.5	64.2	48.7	43.0

Energy Distribution

Daytime	91%
Nighttime	9%

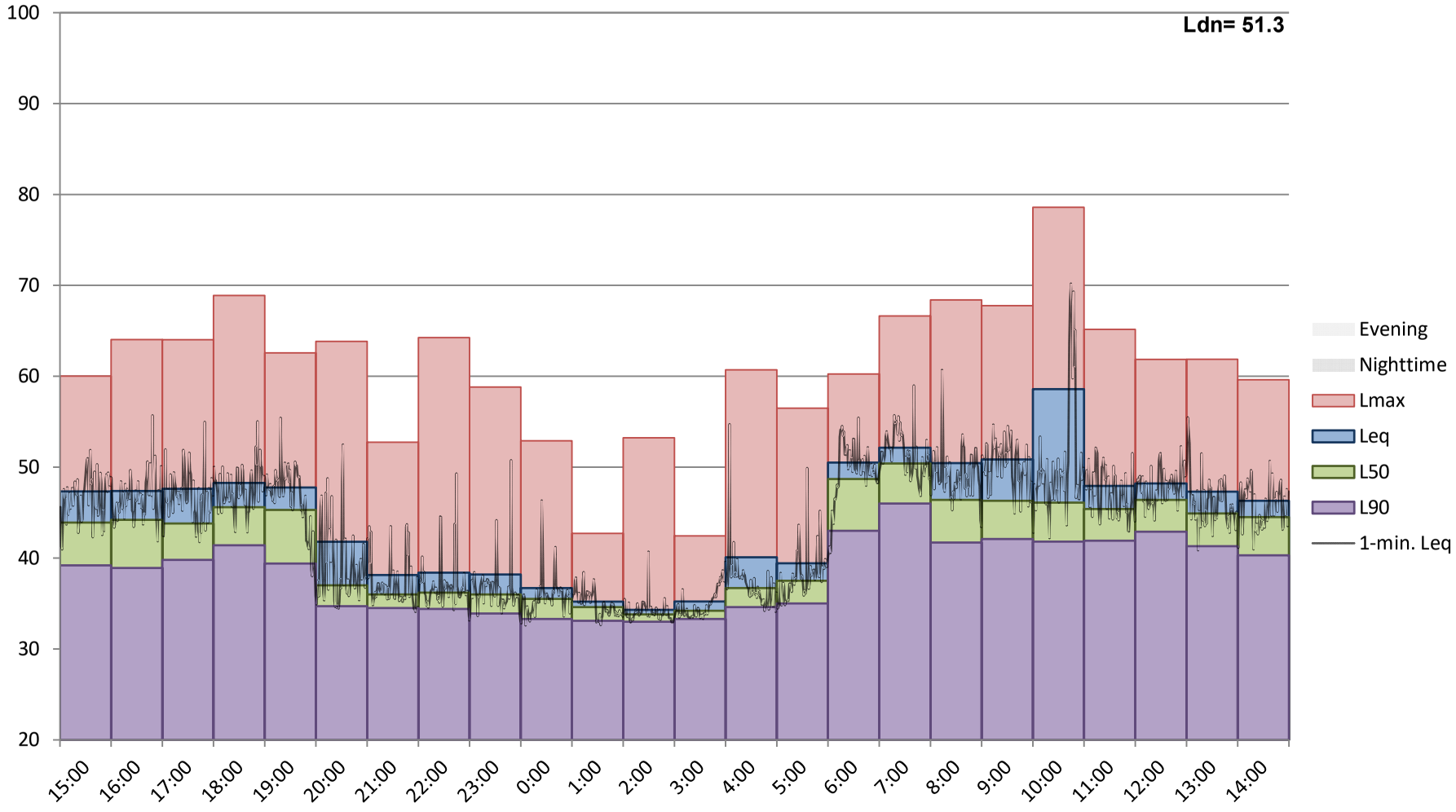
Calculated Ldn, dBA

51.3

Attachment 2

Sunridge Storage - LT-01

April 04, 2022 to April 05, 2022



ATTACHMENT 3

TESLA HISTOGRAM DATA

HOUSTON TEXAS SITE

Cooling Fan Use Pattern (Histogram)

The use of the cooling fans for the megapacks is a function of climatic conditions. In warmer temperatures, the fans run in order to circulate air through the cabinet and remove excess heat from the inverters. The manufacturer of the megapacks performed a careful study of climate patterns for a proposed site outside Houston Texas to establish the fan usage (expressed in speed or percentage of fan capacity) throughout the day. The information below compares climatic conditions in Sacramento California with Houston Texas. Rancho Cordova is within 15 miles of Sacramento, and therefore climate conditions for Sacramento are applicable to the project site.

Climate Comparison

	Houston, TX	Sacramento, CA
Rainfall (inches)	53	20
Snowfall	0	0
Precipitation (days)	90	63
Sunny	204	269
Avg. July High	93	93
Avg. Jan. Low	43	39
Comfort Index (higher=better)	6.6	7.2
UV Index	6.1	5.2

Source: NOAA, National Center for Environmental Data, https://www.ncdc.noaa.gov/temp-and-precip/

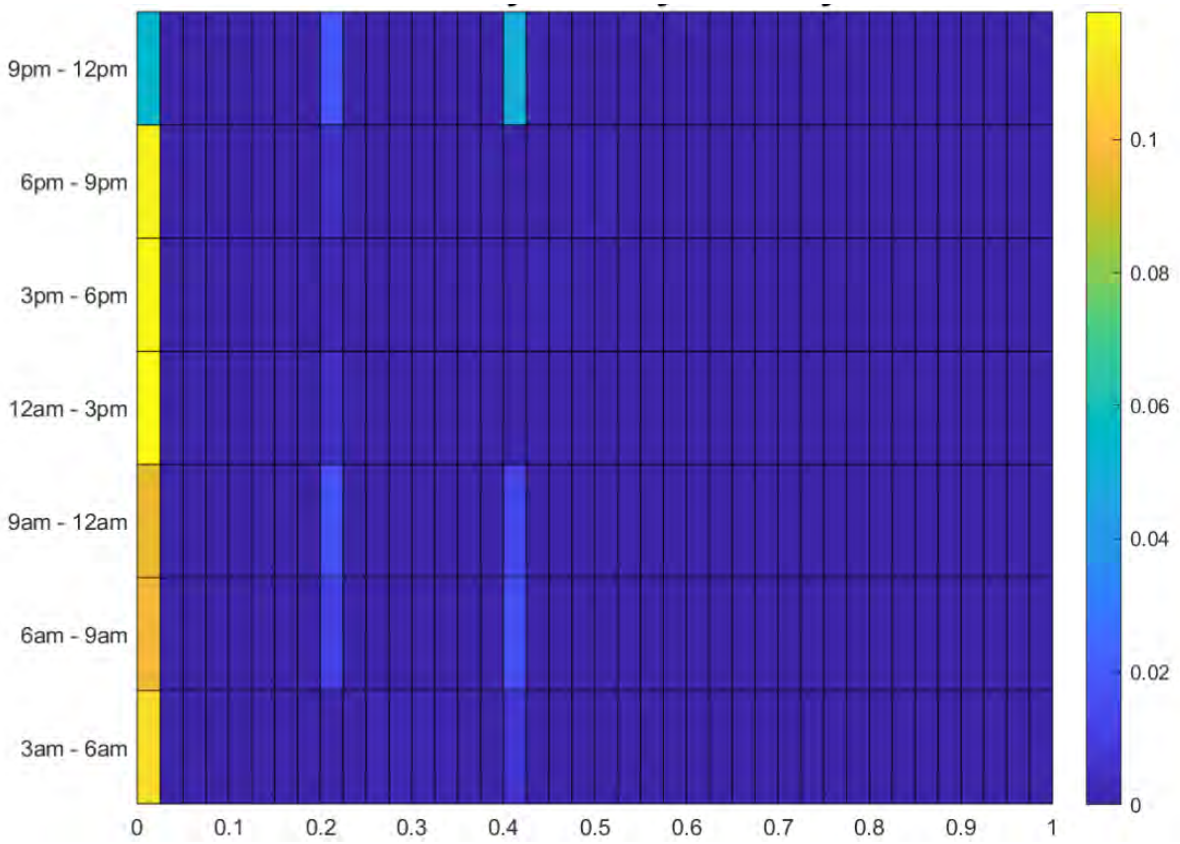
Number of days of sunshine are greater in Sacramento, compared to Houston. The average daily temperature in July is the same in Sacramento and Houston, which means the cooling fans would operate at the same levels in both locales during the hottest month. However, the comfort index is actually higher for Sacramento (which accounts for factors such as humidity; Houston has a higher humidity, which makes the cooling of equipment more difficult).

The January average temperatures in Sacramento are only 4 degrees less, and therefore very comparable to Houston. The megapacks are not equipped with heaters, as the inverters naturally generate heat during the electricity transfer process.

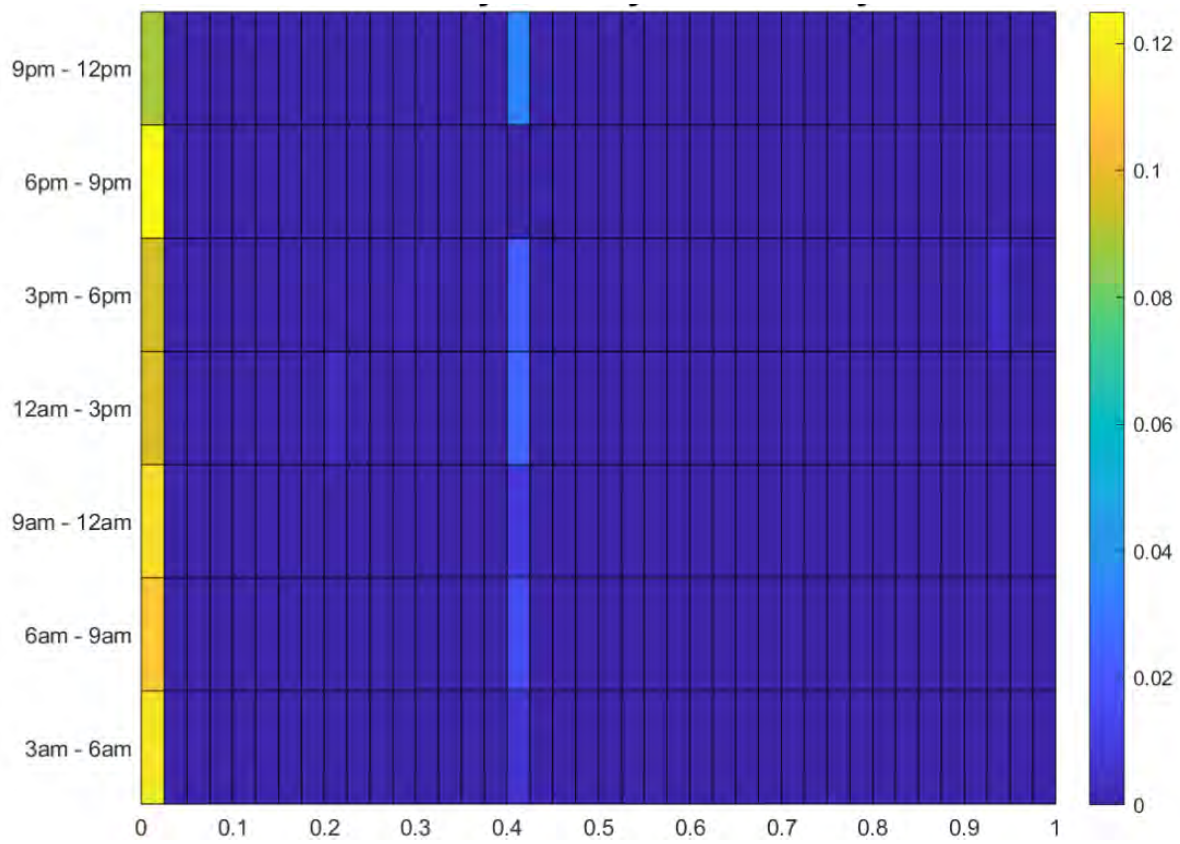
Consequently the provided representative daily use histograms for the cooling fan use in January and July at the Houston Texas site would be very reasonable as a reference for the Sacramento (Rancho Cordova) site operations. The use histograms from Houston are provided on the following pages.

From the histograms, it is clear that the 40 percent fan level (0.4) is the most common occurrence throughout the 24-hour period, in both January and July. There are virtually no fan levels higher than 40 percent, with a handful of occurrences with 20 percent fan level use. 40 percent is therefore representative of the most common, and most intensive, fan use that is anticipated for the Sacramento (Rancho Cordova) site.

Total Daily Fan Duty - July



Total Daily Fan Duty - January



Fan Speed (Percent of Capacity)

ATTACHMENT 4

TESLA MEGAPACK SOUND LEVEL DATA

Megapack Sound Power Level

Tesla Energy – March 2020

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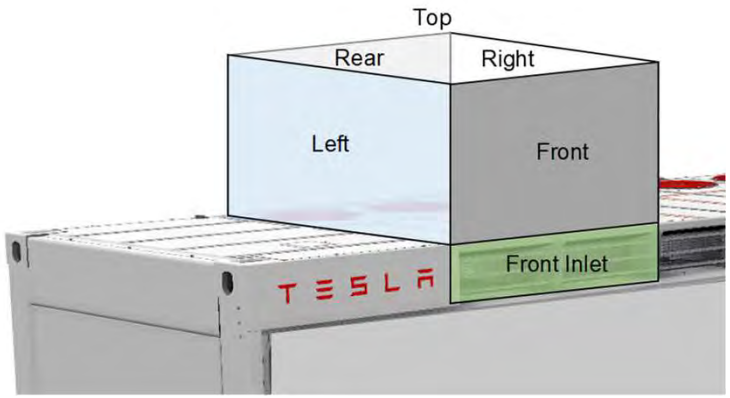
Sound Power – Intensity Method

- The sound power of the Megapack is estimated using the sound intensity method.
- Imaginary surfaces encompassing the noise radiating surfaces of the Megapack were scanned using a pressure-particle velocity (pu) probe to capture the average sound intensity over each surface.
- The average intensity was multiplied by the surface area of each imaginary surface to calculate the sound power.
- The sound power of each surface was added to calculate the total sound power of a Megapack during operation.
- Measurements were made with either one fan or two fans in operation. These values were used to calculate the sound power level of multiple fans.
- Results at 100% fan duty cycle are not available at this time, but our expectations are that these will not be significantly different than 95% results

	Sound Power Level			
	Original Measurement	Scaled Up from Original		
Fan%	Total - 2 Fans	**2h Megapack** Total - 11 Fans	**4h Megapack** Total - 8 Fans	**4h Megapack (thermal depopulation)** Total - 6 Fans
90%	90.3	97.7	96.4	95.1
80%	87.2	94.6	93.2	91.9
70%	85.2	92.6	91.2	90.0
60%	82.4	89.8	88.4	87.1
40%	76.7	84.1	82.7	81.5
	Total - 1 Fan	Total - 11 Fans	Total - 8 Fans	Total - 6 Fans
95%	87.7	98.1	96.7	95.5



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Sound Pressure and Sound Power – 11 Fans

30ft 0deg		**Q=2**
Fan %	Sound Pressure - 11 fans - dBA-SPL	**Sound Power - 11 fans - dBA-W**
100	74.1	**98.3**
90	73.3	**97.5**
80	72.1	**96.3**
70	70.6	**94.8**
60	69.0	**93.2**
25ft 45deg		
Fan %	Sound Pressure - 11 fans - dBA-SPL	**Sound Power - 11 fans - dBA-W**
100	76.4	**99.0**
50ft 45deg		
Fan %	Sound Pressure - 11 fans - dBA-SPL	**Sound Power - 11 fans - dBA-W**
100	71.4	**100.0**
90	70.3	**99.0**
80	70.5	**99.1**
70	67.1	**95.7**
50ft 90deg		
Fan %	Sound Pressure - 11 fans - dBA-SPL	**Sound Power - 11 fans - dBA-W**
100	66.4	**95.0**
90	66.4	**95.1**
80	65.1	**93.7**
70	64.6	**93.2**

- The Megapack with 11 fans operating was measured at the Gigafactory in Reno.
- Sound pressure was measured at fixed distances from the noisiest sides of the Megapack and the formula below was used to estimate the sound power.

$$L_W = L_p + \left|10 \cdot \log\left(\frac{Q}{4\pi \cdot r^2}\right)\right|$$

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Testing Validation – 11 Fans

- At 90% and 80% commanded fan speed, the estimated sound power of a Megapack with 11 fans using the intensity method was within the range of the sound power estimated by measuring the sound pressure of a Megapack with 11 fans operating.
- However, at lower fan speeds, the intensity method estimated a lower level the sound pressure method.
- This should be considered when extrapolating the sound power levels to lower fan speeds.

Command	Total - 2 Fans [Measured sound power – intensity method]	Total - 11 Fans [Estimated from 2-fan intensity data]	Total 11 Fans [Estimated from 11-fan sound pressure data]	Total - 8 Fans [Estimated]	Total - 6 Fans [Estimated]
100%	N/A	N/A	**100-95**	N/A	N/A
90%	90.3	97.7	**99-95.1**	96.4	95.1
80%	87.2	94.6	**96.3-93.7**	93.2	91.9
70%	85.2	92.6	**99.1-93.2**	91.2	90.0
60%	82.4	89.8	**93.2**	88.4	87.1
40%	76.7	84.1	N/A	82.7	81.5

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Appendix

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30 ft 0 degrees

Sound Pressure Measurement Location at Reno

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50 ft 45 degrees

Sound Pressure Measurement Location at Reno

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25 ft 45 degrees

Sound Pressure Measurement Location at Reno

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50 ft 90 degrees

Sound Pressure Measurement Location at Reno

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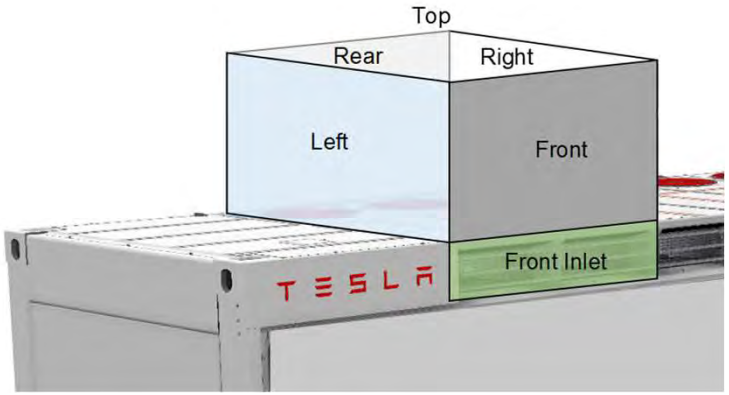
Sound Power – Intensity Method – 2 Fans 40% Duty Cycle

	Top	Right	Rear	Left	Front	Front Inlet	Sum of Surfaces
20	3.8	-7.0	24.1	11.0	-22.3	-1.2	24.3
25	3.3	1.1	29.3	13.0	-6.0	6.6	29.4
31.5	4.8	0.2	32.2	12.8	1.4	11.4	32.3
40	10.4	7.0	34.2	11.0	11.3	18.5	34.4
50	11.7	6.5	35.9	20.8	15.1	22.8	36.3
63	11.4	17.9	38.4	27.1	20.1	25.7	39.1
80	20.0	24.9	35.1	29.1	26.0	29.2	37.6
100	31.6	29.5	37.3	35.4	28.3	33.8	41.5
125	37.8	37.9	39.3	40.3	35.6	39.5	46.4
160	43.2	42.7	45.2	47.4	43.9	47.1	53.1
200	59.9	57.6	63.2	64.0	58.8	60.8	69.1
250	53.4	52.7	56.1	57.0	53.7	52.9	62.4
315	54.5	54.2	56.1	58.2	53.7	53.2	63.1
400	60.3	61.1	62.8	63.6	58.7	59.7	69.1
500	58.7	58.3	60.6	61.7	56.4	57.2	67.0
630	61.1	60.3	62.2	62.8	58.8	58.0	68.7
800	58.9	59.0	61.4	61.5	58.1	54.5	67.2
1000	56.7	56.6	59.5	59.2	56.2	53.1	65.1
1250	55.2	55.4	57.8	57.1	53.9	50.9	63.4
1600	56.2	53.5	57.1	55.5	52.9	48.4	62.5
2000	52.1	51.0	54.3	51.1	49.8	41.4	59.0
2500	46.9	46.8	50.3	44.4	45.7	37.0	54.4
3150	43.3	43.5	46.6	36.3	42.9	38.8	50.8
4000	33.0	35.4	39.2	40.8	36.9	43.3	47.2
5000	36.5	33.8	39.3	39.6	33.1	41.4	46.1
6300	34.8	33.3	37.9	35.8	32.7	37.0	43.4
8000	31.7	30.1	33.6	31.9	29.2	31.3	39.3
10000	25.6	24.5	27.2	26.9	23.4	25.3	33.4
12500	19.8	17.0	19.3	18.2	15.6	20.1	26.4
16000	12.1	2.4	4.4	0.9	6.1	8.2	15.2
20000	7.7	6.4	5.9	8.6	4.3	6.3	14.5
Total	**68.4**	**67.9**	**70.6**	**71.1**	**66.9**	**66.5**	**76.7**



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ATTACHMENT 5

NOISEPRO MODELING DATA

Technical Basis of Dudek's "NoisePro" Excel-based Outdoor Sound Propagation Prediction Model

In summary, the Microsoft Excel-based **NoisePro** outdoor sound propagation model developed by Dudek calculates the aggregate sound pressure level (SPL) received by each and every cell within a two-dimensional (2D) array (a product of X columns of cells by Y rows of cells). The quantity of this received SPL, in A-weighted decibels (dBA), is the logarithmic sum of acoustical contribution from each of "n" user-input sound emitting point sources located on the same 2D array, which may be written as follows:

$$SPL_{X,Y} = 10 * \log \sum_{i=1}^{n} 10^{0.1[L_i - A_i]}$$

where each individual source sound level (L_i) is attenuated by an algebraic sum of three attenuation factors ($A_i = A_{div} + A_{atm} + A_{gr}$) that are each dependent on the distance between the sound source position on the X by Y array and the receiving $SPL_{X,Y}$ position on a different position in the same 2D array of worksheet cells, where each cell is defined by the user as representing the center of a square area having equal sides of user-defined length in feet. The above expression is based on Equation 5 from the International Organization for Standardization (ISO) 9613-2 "Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation", and the individual attenuation factors used by **NoisePro** emulate those in Equation 4 and may be summarized as follows:

- $\boldsymbol{A_{div}}$ = attenuation due to *geometrical divergence* (i.e., pure distance), equating to 20*LOG(d/d_{ref}); and where $\boldsymbol{d}$ is the horizontal distance between a source and a receiver position, while $\boldsymbol{d_{ref}}$ is the reference distance at which the sound source L_i is defined.
- $\boldsymbol{A_{atm}}$ = attenuation due to *atmospheric absorption*, which for 1,000 Hz (1 kHz) = 4.16*$\boldsymbol{d}$/3280 and is derived from Equation 5.7 in Noise & Vibration Control Engineering (Beranek and Ver, 1992).
- $\boldsymbol{A_{gr}}$ = attenuation due to *ground effects*, appearing as Equation 10 in ISO 9613-2 and can be expressed with the following Excel formula:

  $$\boldsymbol{A_{gr}} = \text{MAX}(0,4.8-[\boldsymbol{h_s}+\boldsymbol{h_r}]/\boldsymbol{d}*[17+984/\boldsymbol{d}])$$

  where $\boldsymbol{h_s}$ and $\boldsymbol{h_r}$ are the heights (in feet) of the sound source and receiver positions above grade, respectively. This means that for small distances, attenuation from ground effects will be small or essentially zero; and, even at great distances, the attenuation from ground effects is effectively capped at 4.8 dB.

The Excel workbook comprising **NoisePro** calculates $SPL_{X,Y}$ by using a coding loop to evaluate the acoustic contribution from each attenuated sound source ($\boldsymbol{L_i}$ - $\boldsymbol{A_i}$) in sequence, and logarithmically adding the new evaluation to the previous total in a cumulative manner. When all sources have been evaluated, the loop terminates and yields an aggregate or log-summed total $SPL_{X,Y}$ value that is thus unique to a position in the 2D array of cells represented by X and Y, and can thus be "mapped". If the user has defined a particular cell in the X by Y array as a uniquely tagged Receiver, then the corresponding $SPL_{X,Y}$ value can be indexed and displayed accordingly.

The resulting output array of cells, each having an individually calculated $SPL_{X,Y}$ numerical value, is then filled with a color (from a user-defined palette) by application of a Conditional Formatting rules set (an Excel formatting feature) that compares the dB quantity with user-defined "high" and "low" dB ranges for each available color. Each colored cell can thus be likened to a "pixel" within a 2D array that forms a composite image representing—visually—the sound propagation from all modeled sound sources.

GRID CALCULATION WORKSHEET

Example Portion of Concluded Calculations Loop

grid size (ft)	
x	10.5
y	10.5
rcvr plane height (ft)	
z	5

Source	**216**
Source Tag	S001
Source X-coordinate	693
Source Y-coordinate	756
Source Z-coordinate	6
Source Reference SPL	89
Source Ref. Distance (ft.)	3.28
Source height above grade (ft.)	6

Grid Upper Left (C,R)

1 1

Grid Lower Right (C,R)

120 90

		Receiver Location			
Column	Row	X-coord	Y-coord	Z-coord	Cumulative SPL
1	1	10.5	10.5	5	44.5
1	2	10.5	21	5	44.7
1	3	10.5	31.5	5	44.7
1	4	10.5	42	5	44.8
1	5	10.5	52.5	5	44.8
1	6	10.5	63	5	44.9
1	7	10.5	73.5	5	45.0
1	8	10.5	84	5	45.0
1	9	10.5	94.5	5	45.1
1	10	10.5	105	5	45.2
1	11	10.5	115.5	5	45.2
1	12	10.5	126	5	45.3
1	13	10.5	136.5	5	45.4
1	14	10.5	147	5	45.6
1	15	10.5	157.5	5	45.7
1	16	10.5	168	5	45.6
1	17	10.5	178.5	5	45.6
1	18	10.5	189	5	45.6
1	19	10.5	199.5	5	45.7
1	20	10.5	210	5	45.9
1	21	10.5	220.5	5	46.0
1	22	10.5	231	5	46.1
1	23	10.5	241.5	5	46.2
1	24	10.5	252	5	46.3
1	25	10.5	262.5	5	46.3
1	26	10.5	273	5	46.3
1	27	10.5	283.5	5	46.5
1	28	10.5	294	5	46.6
1	29	10.5	304.5	5	46.7

grid scale	ft	Noise Source Description	Type	SPL (dBA)	Ref. Distance (ft)
x	10.5	Tesla MegaPack	MGP	79	3.28
y	10.5	MegaPack Augment (6 units)	MPA	76	3.28
		Sub-station Step-up Transformer	SUB	89	3.28
		Mid-voltage Transformer	TRN	64	3.28

Source Inventory with Model Grid Coordinate Locations and Sound Pressure Reference Levels

Source	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Source Tag	**I001**	**I002**	**I003**	**I004**	**I005**	**I006**	**I007**	**I008**	**I009**	**I010**	**I011**	**I012**	**I013**	**I014**	**I015**	**I016**	**I017**	**I018**	**I019**	**I020**
Source X-coordinate (feet)	724.5	745.5	756	777	787.5	798	819	756	735	724.5	714	693	682.5	672	651	661.5	682.5	693	703.5	724.5
Source Y-coordinate (feet)	210	220.5	241.5	252	262.5	273	283.5	357	346.5	325.5	315	304.5	294	283.5	315	325.5	336	346.5	357	378
Source Type	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA
Source Refernce SPL	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Source Tag	**I021**	**I022**	**I023**	**I024**	**I025**	**I026**	**I027**	**I028**	**I029**	**I030**	**I031**	**I032**	**I033**	**I034**	**I035**	**I036**	**I037**	**I038**	**I039**	**I040**
Source X-coordinate (feet)	735	745.5	766.5	703.5	682.5	672	661.5	651	630	619.5	598.5	588	567	577.5	598.5	609	619.5	630	651	661.5
Source Y-coordinate (feet)	388.5	399	409.5	483	472.5	462	451.5	430.5	420	409.5	388.5	378	409.5	420	430.5	441	462	472.5	483	493.5
Source Type	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA
Source Refernce SPL	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Source Tag	**I041**	**I042**	**I043**	**I044**	**I045**	**I046**	**I047**	**I048**	**I049**	**I050**	**I051**	**I052**	**I053**	**I054**	**I055**	**I056**	**I057**	**I058**	**I059**	**I060**
Source X-coordinate (feet)	682.5	693	703.5	724.5	735	756	693	672	661.5	651	630	619.5	609	588	577.5	556.5	546	525	514.5	504
Source Y-coordinate (feet)	504	514.5	535.5	546	556.5	567	640.5	630	619.5	609	588	577.5	567	556.5	546	525	514.5	504	493.5	472.5
Source Type	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA
Source Refernce SPL	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Source Tag	**I061**	**I062**	**I063**	**I064**	**I065**	**I066**	**I067**	**I068**	**I069**	**I070**	**I071**	**I072**	**I073**	**I074**	**I075**	**I076**	**I077**	**I078**	**I079**	**I080**
Source X-coordinate (feet)	493.5	504	514.5	535.5	546	567	577.5	588	609	619.5	630	651	661.5	598.5	588	577.5	556.5	546	525	514.5
Source Y-coordinate (feet)	514.5	525	546	556.5	567	577.5	588	598.5	619.5	630	640.5	651	672	745.5	735	714	703.5	693	672	661.5
Source Type	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA	MPA
Source Refernce SPL	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Source Tag	**I081**	**I082**	**I083**	**I084**	**I085**	**I086**	**M001**	**M002**	**M003**	**M004**	**M005**	**M006**	**M007**	**M008**	**M009**	**M010**	**M011**	**M012**	**M013**	**M014**
Source X-coordinate (feet)	504	493.5	472.5	462	441	430.5	714	724.5	735	756	766.5	777	798	766.5	756	735	724.5	703.5	693	682.5
Source Y-coordinate (feet)	651	640.5	630	609	598.5	588	231	241.5	252	262.5	283.5	294	304.5	336	325.5	304.5	294	294	273	262.5
Source Type	MPA	MPA	MPA	MPA	MPA	MPA	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP
Source Refernce SPL	76	76	76	76	76	76	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Source Tag	**M015**	**M016**	**M017**	**M018**	**M019**	**M020**	**M021**	**M022**	**M023**	**M024**	**M025**	**M026**	**M027**	**M028**	**M029**	**M030**	**M031**	**M032**	**M033**	**M034**
Source X-coordinate (feet)	630	651	661.5	672	682.5	703.5	724.5	735	745.5	714	703.5	693	672	661.5	640.5	630	619.5	598.5	546	556.5
Source Y-coordinate (feet)	325.5	336	346.5	367.5	378	388.5	399	420	430.5	462	451.5	441	430.5	420	399	388.5	378	367.5	420	441
Source Type	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP
Source Refernce SPL	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Source Tag	**M035**	**M036**	**M037**	**M038**	**M039**	**M040**	**M041**	**M042**	**M043**	**M044**	**M045**	**M046**	**M047**	**M048**	**M049**	**M050**	**M051**	**M052**	**M053**	**M054**
Source X-coordinate (feet)	577.5	588	598.5	619.5	630	651	672	682.5	693	703.5	714	735	703.5	693	672	661.5	651	630	619.5	598.5
Source Y-coordinate (feet)	451.5	462	472.5	493.5	504	514.5	525	535.5	556.5	567	577.5	588	630	619.5	598.5	588	577.5	567	556.5	535.5
Source Type	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Source Refernce SPL	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP
Source Reference Dist. (ft.)	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Source Height Above Grade (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28

Source	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Source Tag	**M055**	**M056**	**M057**	**M058**	**M059**	**M060**	**M061**	**M062**	**M063**	**M064**	**M065**	**M066**	**M067**	**M068**	**M069**	**M070**	**M071**	**M072**	**M073**	**M074**
Source X-coordinate (feet)	588	577.5	556.5	546	535.5	514.5	472.5	483	504	514.5	525	535.5	556.5	567	577.5	598.5	609	630	651	619.5
Source Y-coordinate (feet)	525	514.5	493.5	483	472.5	462	535.5	546	556.5	577.5	588	598.5	609	619.5	630	651	661.5	672	682.5	724.5
Source Type	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP
Source Refernce SPL	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Source	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Source Tag	**M075**	**M076**	**M077**	**M078**	**M079**	**M080**	**M081**	**M082**	**M083**	**M084**	**M085**	**M086**	**T001**	**T002**	**T003**	**T004**	**T005**	**T006**	**T007**	**T008**
Source X-coordinate (feet)	609	588	577.5	556.5	546	525	514.5	504	483	472.5	451.5	441	693	714	724.5	745.5	756	766.5	787.5	619.5
Source Y-coordinate (feet)	714	703.5	693	672	661.5	651	640.5	619.5	609	598.5	588	567	241.5	252	273	283.5	294	304.5	325.5	346.5
Source Type	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	MGP	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN
Source Refernce SPL	79	79	79	79	79	79	79	79	79	79	79	79	64	64	64	64	64	64	64	64
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	8	8	8	8	8	8	8	8	8	8	8	8	6	6	6	6	6	6	6	6

Source	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Source Tag	**T009**	**T010**	**T011**	**T012**	**T013**	**T014**	**T015**	**T016**	**T017**	**T018**	**T019**	**T020**	**T021**	**T022**	**T023**	**T024**	**T025**	**T026**	**T027**	**T028**
Source X-coordinate (feet)	630	651	661.5	672	693	703.5	714	735	535.5	546	567	577.5	588	609	619.5	640.5	651	661.5	682.5	693
Source Y-coordinate (feet)	357	367.5	378	399	409.5	420	430.5	451.5	441	451.5	462	483	493.5	504	514.5	535.5	546	556.5	567	577.5
Source Type	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN
Source Refernce SPL	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

Source	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
Source Tag	**T029**	**T030**	**T031**	**T032**	**T033**	**T034**	**T035**	**T036**	**T037**	**T038**	**T039**	**T040**	**T041**	**T042**	**T043**	**S001**
Source X-coordinate (feet)	703.5	724.5	462	472.5	483	504	514.5	535.5	546	556.5	577.5	588	598.5	619.5	630	693
Source Y-coordinate (feet)	588	609	546	556.5	577.5	588	598.5	609	630	640.5	651	661.5	682.5	693	703.5	756
Source Type	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	TRN	SUB
Source Refernce SPL	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	89
Source Reference Dist. (ft.)	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Source Height Above Grade (ft.)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

Receiver Inventory with Model Grid Coordinate Locations and Predicted Operational Sound Level Exposure

Receiver					
Receiver Tag	**R001**	**R002**	**R003**	**R004**	**R005**
Receiver X-coordinate (feet)	399	304.5	189	63	21
Receiver Y-coordinate (feet)	136.5	241.5	367.5	504	556.5
Receiver Ht Above Ground (ft)	5	5	5	5	5
SPL Predicted at Receiver	**49.3**	**49.3**	**48.8**	**48.2**	**48.1**

Sound Barrier (Noise Wall) Grid Coordinate Locations and Height

Wall Segment									
Wall Tag	**W021**	**W022**	**W023**	**W024**	**W025**	**W026**	**W027**	**W028**	**W029**
Wall X-coordinate (feet)	661.5	661.5	661.5	661.5	661.5	661.5	661.5	651	651
Wall X-coordinate (feet)	168	178.5	189	199.5	210	220.5	231	241.5	252
Wall Height (feet)	12	12	12	12	12	12	12	12	12

Wall Segment																				
Wall Tag	**W030**	**W031**	**W032**	**W033**	**W034**	**W035**	**W036**	**W037**	**W038**	**W039**	**W040**	**W041**	**W042**	**W043**	**W044**	**W045**	**W046**	**W047**	**W048**	**W049**
Wall X-coordinate (feet)	640.5	640.5	630	630	619.5	609	609	598.5	588	577.5	567	556.5	546	535.5	525	514.5	504	493.5	483	483
Wall X-coordinate (feet)	262.5	273	283.5	294	304.5	315	325.5	336	346.5	357	367.5	378	388.5	399	409.5	420	430.5	441	451.5	462
Wall Height (feet)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Wall Segment																				
Wall Tag	**W050**	**W051**	**W052**	**W053**	**W054**	**W055**	**W056**	**W057**	**W058**	**W059**	**W060**	**W061**	**W062**	**W063**	**W064**	**W065**	**W066**	**W067**	**W068**	**W069**
Wall X-coordinate (feet)	472.5	462	451.5	451.5	441	441	430.5	430.5	430.5	430.5	420	409.5	399	388.5	378	378	378	378	409.5	441
Wall X-coordinate (feet)	472.5	483	493.5	504	514.5	525	535.5	546	556.5	567	567	577.5	577.5	577.5	588	598.5	609	577.5	567	504
Wall Height (feet)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Wall Segment																				
Wall Tag	**W070**	**W071**	**W072**	**W073**	**W074**	**W075**	**W076**	**W077**	**W078**	**W079**	**W080**	**W081**	**W082**	**W083**	**W084**	**W085**	**W086**	**W087**	**W088**	**W089**
Wall X-coordinate (feet)	451.5	462	472.5	483	493.5	504	514.5	525	535.5	546	556.5	567	577.5	588	598.5	609	619.5	630	640.5	651
Wall X-coordinate (feet)	483	472.5	462	441	430.5	420	409.5	399	388.5	378	367.5	357	346.5	336	325.5	304.5	294	273	252	231
Wall Height (feet)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

ATTACHMENT 6

CONSTRUCTION NOISE MODELING DATA

APPENDIX D - RCNM DATA

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Closest Residence West (275 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	270	0
Backhoe	No	40		77.6	270	0
Backhoe	No	40		77.6	270	0

Results Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	67	63
Backhoe	62.9	58.9
Backhoe	62.9	58.9
Total	67	65.5

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Playground North (410 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	410	0
Backhoe	No	40		77.6	410	0
Backhoe	No	40		77.6	410	0

Results Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	63.4	59.4
Backhoe	59.3	55.3
Backhoe	59.3	55.3
Total	63.4	61.9

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Closest Residence West (275 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	270	0
Backhoe	No	40		77.6	270	0
Backhoe	No	40		77.6	270	0
Grader	No	40	85		270	0
Excavator	No	40		80.7	270	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Dozer	67	63
Backhoe	62.9	58.9
Backhoe	62.9	58.9
Grader	70.4	66.4
Excavator	66.1	62.1
Total	70.4	69.8

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Playground North (410 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	410	0
Backhoe	No	40		77.6	410	0
Backhoe	No	40		77.6	410	0
Grader	No	40	85		410	0
Excavator	No	40		80.7	410	0

		Results	
		Calculated (dBA)	
Equipment		*Lmax	Leq
Dozer		63.4	59.4
Backhoe		59.3	55.3
Backhoe		59.3	55.3
Grader		66.7	62.7
Excavator		62.4	58.5
	Total	66.7	66.2

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Closest Residence South (275 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	270	0
Generator	No	50		80.6	270	0
Gradall	No	40		83.4	270	0
Gradall	No	40		83.4	270	0
Backhoe	No	40		77.6	270	0
Backhoe	No	40		77.6	270	0

Results Calculated (dBA)

Equipment	*Lmax	Leq
Crane	65.9	57.9
Generator	66	63
Gradall	68.8	64.8
Gradall	68.8	64.8
Backhoe	62.9	58.9
Backhoe	62.9	58.9
Total	68.8	70.1

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Playground North (410 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	410	0
Generator	No	50		80.6	410	0
Gradall	No	40		83.4	410	0
Gradall	No	40		83.4	410	0
Backhoe	No	40		77.6	410	0
Backhoe	No	40		77.6	410	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Crane		62.3	54.3
Generator		62.4	59.3
Gradall		65.1	61.1
Gradall		65.1	61.1
Backhoe		59.3	55.3
Backhoe		59.3	55.3
	Total	65.1	66.4

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Closest Residence South (275 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	270	0
Roller	No	20		80	270	0
Dump Truck	No	40		76.5	270	0

Results Calculated (dBA)

Equipment	*Lmax	Leq
Paver	62.6	59.6
Roller	65.4	58.4
Dump Truck	61.8	57.8
Total	65.4	63.4

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Playground North (410 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	410	0
Roller	No	20		80	410	0
Dump Truck	No	40		76.5	410	0

Results Calculated (dBA)

Equipment	*Lmax	Leq
Paver	58.9	55.9
Roller	61.7	54.7
Dump Truck	58.2	54.2
Total	61.7	59.8

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: arch coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Closest Residence South (275 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	270	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Compressor (air)	63	59
Total	63	59

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Park Playground North (410 ft)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	410	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Compressor (air)	59.4	55.4
Total	59.4	55.4

*Calculated Lmax is the Loudest value.