

CITY OF RANCHO CORDOVA



PLANNING COMMISSION MEETING

Wednesday, June 28, 2023

5:30 PM – Regular Meeting

David B. Roberts Council Chambers

City Hall

2729 Prospect Park Drive, Rancho Cordova

Join the Meeting Via Zoom Link:

<https://cityofranchocordova.zoom.us/j/87685550299?pwd=c1Q1UHVMWGY2RHpZZ3pxckc0WjcwZz09>

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Instructions to Make Public Comment

Submitting Public Comment via Email

Members of the public who wish to provide public comment via email will need to submit comments to PlanningClerk@cityofranchocordova.org no later than 3:00 p.m. on Wednesday, June 28, 2023.

All comments submitted later than 3:00 p.m. will be sent to the Planning Commission for their review and may not be read during the meeting.

Listening to a Zoom Meeting by Zoom Video Conference

To make a public comment using the Zoom platform, please use the “raise hand” feature at the bottom center of the screen. Please make sure to enable audio controls once access has been given by the Planning Commission Clerk to speak. Please wait to be called upon by the Planning Commission Clerk.

Listening to a Zoom Meeting by Phone Only

You can join a Zoom meeting via teleconferencing/audio conferencing using a cell phone or traditional landline phone. To request to make a public comment by phone press *9 to raise your hand. Please wait to be called upon by the Planning Commission Clerk.

All public comments will be limited to three-minutes.

If you have questions related to the Planning Commission Meeting or the use of Zoom, please contact the Planning Division at (916) 851-8750 before Wednesday, June 28, 2023, before 3:00 p.m.

AGENDA

1. PLANNING COMMISSION REGULAR MEETING - CALL TO ORDER ROLL CALL

Planning Commission Members - Surender Devarapalli, Sergio Diaz, Lee Frechette, Anil Reddy Kondakrindi, Robert McGarvey, Cynthia Stauss, and Chair Leroy Tripette

2. PLEDGE OF ALLEGIANCE

The Chair will call on someone in attendance to lead the Pledge.

3. PUBLIC COMMENT

Citizens wishing to address the Planning Commission for any matter not on the agenda may do so at this time via teleconference or by completing and submitting a Speaker Card to the Planning Commission Clerk. If you want to make a public comment via teleconference, please use the "raise hand" feature at the bottom center of the screen.

If you are participating by telephone and you want to make a public comment, please press *9 to raise your hand. For those participating by Zoom or telephone, please wait to be called upon by the Planning Commission Clerk.

For items on the agenda, speakers will be called by the Mayor at the point on the agenda when the item will be heard. Speakers are encouraged to keep comments to three minutes or less and to state name and community of residence.

Under the provisions of the California Government Code, the Planning Commission is prohibited from discussing or taking immediate action on any item not on the agenda unless it can be demonstrated to be of an emergency nature or the need to take immediate action arose after the posting of the agenda.

4. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

- 4.1. **Subject:** Meeting Minutes from the Regular Planning Commission Meeting of April 12, 2023. Readoption of Meeting Minutes for the March 8, 2023 Regular Planning Commission Meeting.
Recommendation: Adopt the Minutes.

5. PUBLIC HEARING ITEMS

- 5.1. **Subject:** Juniper Creek Energy Storage Zoning Text Amendment and Conditional Use Permit (Mitigated Negative Declaration Prepared Pursuant to Article 6 of the California Environmental Quality Act) - Project No. PLND-0422-0034 - Located at the Southeast corner of Canyonlands Drive and Poopenaut Court; APN: 067-0780-011.
Recommendation: Staff recommends that the Planning Commission adopt a Resolution recommending that the City Council:

1. Find the Initial Study-Mitigated Negative Declaration with mitigation measures that was prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project is adequate;
2. Adopt an Ordinance for a Zoning Text Amendment to amend Title 23; and
3. Adopt a Resolution for the Juniper Creek Energy Storage Conditional Use Permit.

6. REGULAR CALENDAR ITEMS

6.1. **Subject:** Planning Commission Rules and Procedures Discussion.

Recommendation: No formal recommendation is being made. The Planning Commission should discuss what they would like to be included in their Rules and Procedures and provide staff with direction to prepare the document for either a follow-up discussion with the Planning Commission prior to City Council approval or to schedule the item for approval at a regularly scheduled City Council meeting.

7. COMMISSION COMMENTS/IDEAS/QUESTIONS

8. DIRECTOR'S REPORT

9. ADJOURNMENT

ADDITIONAL INFORMATION

SPECIAL MEETINGS LISTED BELOW ARE SUBJECT TO CHANGE/CANCELLATION WITHOUT FURTHER NOTICE.

Public documents related to items on the open session portion of this agenda, which are distributed to the Planning Commission less than 72 hours prior to the meeting, shall be available for public inspection at the time the documents are distributed to the Planning Commission. Documents are available for inspection at the Planning Office located in Rancho Cordova City Hall.

The agenda items are accessible on the City's website at www.cityofranhocordova.org on Fridays prior to the Regular Planning Commission Meeting.

UPCOMING MEETINGS

July 12, 2023	5:30 PM Regular Meeting
August 9, 2023	5:30 PM Regular Meeting
September 13, 2023	5:30 PM Regular Meeting
October 11, 2023	5:30 PM Regular Meeting
November 8, 2023	5:30 PM Regular Meeting
December 13, 2023	5:30 PM Regular Meeting

If you have any technical questions related to the agenda items, please contact City Hall at (916) 851-8700.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the Planning Office at (916) 851-8750 at least 48 hours prior to the meeting.

CERTIFICATION OF POSTING OF AGENDA

I, Kelly Whitman, Planning Commission Clerk for the City of Rancho Cordova, declare that the foregoing agenda for the June 28, 2023 Regular Meeting of the Rancho Cordova Planning Commission was posted and available for review on June 22, 2023 at City Hall of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California, 95670. The agenda is also available on the city website at www.cityofranchocordova.org.

Signed June 22, 2023 at Rancho Cordova, California.

A handwritten signature in blue ink that reads "Kelly Whitman". The signature is written in a cursive style and is positioned above a horizontal line.

Kelly Whitman
Planning Commission Clerk

MEMORANDUM



ITEM 4.1.

DATE: June 28, 2023
TO: Planning Commission Members
FROM: Kelly Whitman, Planning Commission Clerk
SUBJECT: **MEETING MINUTES FROM THE REGULAR PLANNING COMMISSION MEETING OF APRIL 12, 2023. READOPTION OF MEETING MINUTES FOR THE MARCH 8, 2023 REGULAR PLANNING COMMISSION MEETING**

RECOMMENDATION

Adopt the Minutes.

ATTACHMENT(S)

1. April 12, 2023 Planning Commission Draft Minutes
2. March 8, 2023 Planning Commission Draft Minutes

CITY OF RANCHO CORDOVA



PLANNING COMMISSION MEETING

Wednesday, April 12, 2023

5:30 PM – Regular Meeting

David B. Roberts Council Chambers

City Hall

2729 Prospect Park Drive, Rancho Cordova

Join the Meeting Via Zoom Link:

<https://cityofranhocordova.zoom.us/j/83277495131?pwd=VERKT0hJdWJNSHljMDVsTWZ6M1hmUT09>

Join the Meeting via the Zoom Phone Number

Zoom Phone Number: +1 669 900 6833 +1 253 215 8782

Webinar ID: 832 7749 5131

Password: 884700

DRAFT MINUTES

1. PLANNING COMMISSION REGULAR MEETING - CALL TO ORDER ROLL CALL

Chair Kondakrindi called the Regular meeting to order in the David B. Roberts Council Chambers at 5:34 p.m.

Planning Commission Members Present: Surender Devarapalli (left at 5:55 p.m.), Sergio Diaz (arrived at 6:05), Lee Frechette, Cynthia Stauss, Leroy Tripette, and Chair Anil Reddy Kondakrindi

Planning Commission Members Absent: Robert McGarvey

Staff Members Present: Chance Finely-Ross, Stefan Heisler, Adam Lindgren, Andrew Martin, Darcy Goulart, Honey Walters, and Kelly Whitman

2. PLEDGE OF ALLEGIANCE

Brenda Gustin led the pledge.

3. PUBLIC COMMENT

ITEM 4.1.

Rancho Cordova Planning Commission - DRAFT MINUTES
Meeting of Wednesday, April 12, 2023

ATTACHMENT 1

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair Kondakrindi closed the public comment period.

4. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair Kondakrindi closed the public comment period.

ACTION: Motion to approve item 4.1 by Frechette second by Stauss;
Motion passed with a 5:0
AYES: Devarapalli, Frechette, Stauss, Tripette, and Chair Kondakrindi
NOES: None
ABSENT: Diaz and McGarvey
ABSTAIN: None

- 4.1. **Subject:** Meeting Minutes from the Regular Planning Commission Meeting of March 8, 2023.

Recommendation: Adopt the minutes.

5. PUBLIC HEARING ITEMS

- 5.1. **Subject:** Grocery Outlet – Conditional Use Permit (CUP) for Off-Site Alcohol Sales (CEQA Exempt Pursuant To Section 15301, Class 1 Existing Facilities) – Project No. PLND-1222-0059.

Recommendation: Determine the project is exempt under CEQA Exemption 15301, projects associated with existing facilities; and Adopt the Resolution for the Grocery Outlet Alcohol Sales Conditional Use Permit (CUP).

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair Kondakrindi closed the public comment period.

ACTION: Motion to approve item 5.1. by Stauss second by Frechette;
Motion passed with a 5:0
AYES: Devarapalli, Frechette, Stauss, Tripette, and Chair Kondakrindi
NOES: None
ABSENT: Diaz and McGarvey
ABSTAIN: None

6. REGULAR CALENDAR ITEMS

- 6.1. **Subject:** Selection of 2023 Chair and Vice Chair.

Recommendation: Nominate and make a motion to appoint one member of the Planning Commission to serve as the Planning Commission Chair and one member to serve as the Vice Chair for the 2023 calendar year.

ITEM 4.1.

Rancho Cordova Planning Commission - DRAFT MINUTES
Meeting of Wednesday, April 12, 2023

ATTACHMENT 1

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair Kondakrindi closed the public comment period.

ACTION: Motion to nominate Commissioner Tripette as Chair and Commissioner Stauss as Vice Chair item 6.1. by Tripette second by Frechette;
Motion passed with a 5:0

AYES: Devarapalli, Frechette, Stauss, Tripette, and Chair Kondakrindi

NOES: None

ABSENT: Diaz and McGarvey

ABSTAIN: None

6.2. **Subject:** Presentation of the Draft Climate Action and Adaptation Plan.

Recommendation: Receive presentation, provide feedback.

Chair Tripette opened the public comment period. The following individuals addressed the Planning Commission:

1. Brenda Gustin
2. Oscar Balaguer

Chair Tripette closed the public comment period.

ACTION: Input was received regarding Presentation of the Draft Climate Action and Adaptation Plan.

7. COMMISSION COMMENTS/IDEAS/QUESTIONS

Planning Commission provided comments, ideas and questions since the last meeting.

8. DIRECTOR'S REPORT

Planning Manager Darcy Goulart gave her report.

9. ADJOURNMENT

Chair Tripette adjourned the meeting at 8:08 p.m.

Kelly Whitman
Planning Commission Clerk

CITY OF RANCHO CORDOVA



PLANNING COMMISSION MEETING

Wednesday, March 8, 2023

5:30 PM – Regular Meeting

David B. Roberts Council Chambers

City Hall

2729 Prospect Park Drive, Rancho Cordova

Join the Meeting Via Zoom Link:

<https://cityofranhocordova.zoom.us/j/88564043350?pwd=UzVtbE5rV2ZIS3NqM2hGSzZ1a1Qvdz09>

Join the Meeting via the Zoom Phone Number

Zoom Phone Number: +1 669 900 6833 +1 253 215 8782

Webinar ID: 885 6404 3350

Password: 642843

DRAFT MINUTES

1. PLANNING COMMISSION REGULAR MEETING - CALL TO ORDER ROLL CALL

Chair Kondakrindi called the Regular meeting to order in the David B. Roberts Council Chambers at 5:32 p.m.

Council Members Present: Surender Devarapalli, Sergio J. Diaz, Lee Frechette, Robert J. McGarvey, Leroy Tripette, and Chair Anil Reddy Kondakrindi

Council Members Absent: Cynthia Stauss

Staff Members Present: Krystina Baudrey, Chance Finley-Ross, Darcy Goulart, Adam Lindgren, and Kelly Whitman

2. PLEDGE OF ALLEGIANCE

Darcy Goulart led the pledge.

3. PUBLIC COMMENT

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair

ITEM 4.1.

Rancho Cordova Planning Commission - DRAFT MINUTES
Meeting of Wednesday, March 8, 2023

ATTACHMENT 2

Kondakrindi closed the public comment period.

4. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

Chair Kondakrindi opened the public comment period. Seeing no speakers. Chair Kondakrindi closed the public comment period.

ACTION: Motion to approve item 4.1 by Frechette second by McGarvey;
Motion passed with a 6:0 vote
AYES: Devarapalli, Diaz, Frechette, McGarvey, Tripette, and Chair Kondakrindi
NOES: None
ABSENT: Stauss
ABSTAIN: None

- 4.1. **Subject:** Meeting Minutes from the Regular Planning Commission Meeting of November 9, 2022.

Recommendation: Adopt the minutes.

5. PUBLIC HEARING ITEMS

- 5.1. **Subject:** Holiday Inn Facade Renovations Design Review (CEQA Exempt Pursuant to Section 15301, Class 1 Existing Facilities) - PLND-1022-0055

Recommendation: Determine the project is exempt under CEQA Exemption 15301, projects associated with existing facilities; and Adopt the Resolution approving the Major Design Review for façade renovations to the existing Holiday Inn building.

Chair Kondakrindi opened the public comment period. The following individuals addressed the Council:

1. James Garcia

Chair Kondakrindi closed the public comment period.

ACTION: Motion to continue item 5.1. to the next regular Planning Commission meeting by Kondakrindi second by Diaz;
Motion failed with a 3:3 vote
AYES: Devarapalli, Diaz, and Chair Kondakrindi
NOES: Frechette, McGarvey, and Tripette
ABSENT: Stauss
ABSTAIN: None

ACTION: Motion to approve item 5.1. by Frechette second by Tripette;
Motion passed with a 4:2 vote
AYES: Devarapalli, Frechette, McGarvey, and Tripette
NOES: Diaz and Chair Kondakrindi
ABSENT: Stauss
ABSTAIN: None

6. REGULAR CALENDAR ITEMS

- 6.1. **Subject:** Selection of 2023 Chair and Vice Chair

Recommendation: Nominate and make a motion to appoint one member of the Planning Commission to serve as the Planning Commission Chair and one member to serve as the Vice Chair for the 2023 calendar year.

ITEM 4.1.

Rancho Cordova Planning Commission - DRAFT MINUTES
Meeting of Wednesday, March 8, 2023

ATTACHMENT 2

ACTION: Motion to continue item 6.1. to the next regular Planning Commission meeting by Kondakrindi second by Diaz;
Motion passed with a 4:2 vote

AYES: Devarapalli, Diaz, McGarvey, and Chair Kondakrindi

NOES: Frechette and Tripette

ABSENT: Stauss

ABSTAIN: None

7. COMMISSION COMMENTS/IDEAS/QUESTIONS

Planning Commission provided comments, ideas and questions since the last meeting.

8. DIRECTOR'S REPORT

Planning Manager Darcy Goulart gave her report.

9. ADJOURNMENT

Chair Kondakrindi adjourned the meeting at 6:46 p.m.

Kelly Whitman
Planning Commission Clerk

MEMORANDUM

ITEM 5.1.



DATE: June 28, 2023

TO: Planning Commission

FROM: Darcy Goulart, Planning Manager

SUBJECT: JUNIPER CREEK ENERGY STORAGE – ZONING TEXT AMENDMENT AND CONDITIONAL USE PERMIT (MITIGATED NEGATIVE DECLARATION PREPARED PURSUANT TO ARTICLE 6 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT) – PROJECT NO. PLND-0422-0034 – LOCATED AT THE SOUTHEAST CORNER OF CANYONLANDS DRIVE AND POOPENAUT COURT; APN: 067-0780-011

PROPERTY OWNER:	APPLICANT:
Sunridge Park LLC	Sunridge Energy, LLC
2410 Fair Oaks Boulevard, Unit 110	125 E. John Carpenter Freeway, Suite 525
Sacramento, CA 95825	Irving, TX 75062

PROJECT:	Juniper Creek Energy Storage
FILE:	PLND-0422-0034
LOCATION:	Southeast corner of Canyonlands Drive and Poopenaut Court
APN:	067-0780-011
PLANNER:	Darcy Goulart, Planning Manager

RECOMMENDATION

Staff recommends that the Planning Commission adopt a Resolution recommending that the City Council:

1. Find the Initial Study-Mitigated Negative Declaration with mitigation measures that was prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project is adequate;
2. Adopt an Ordinance for a Zoning Text Amendment to amend Title 23; and
3. Adopt a Resolution for the Juniper Creek Energy Storage Conditional Use Permit.

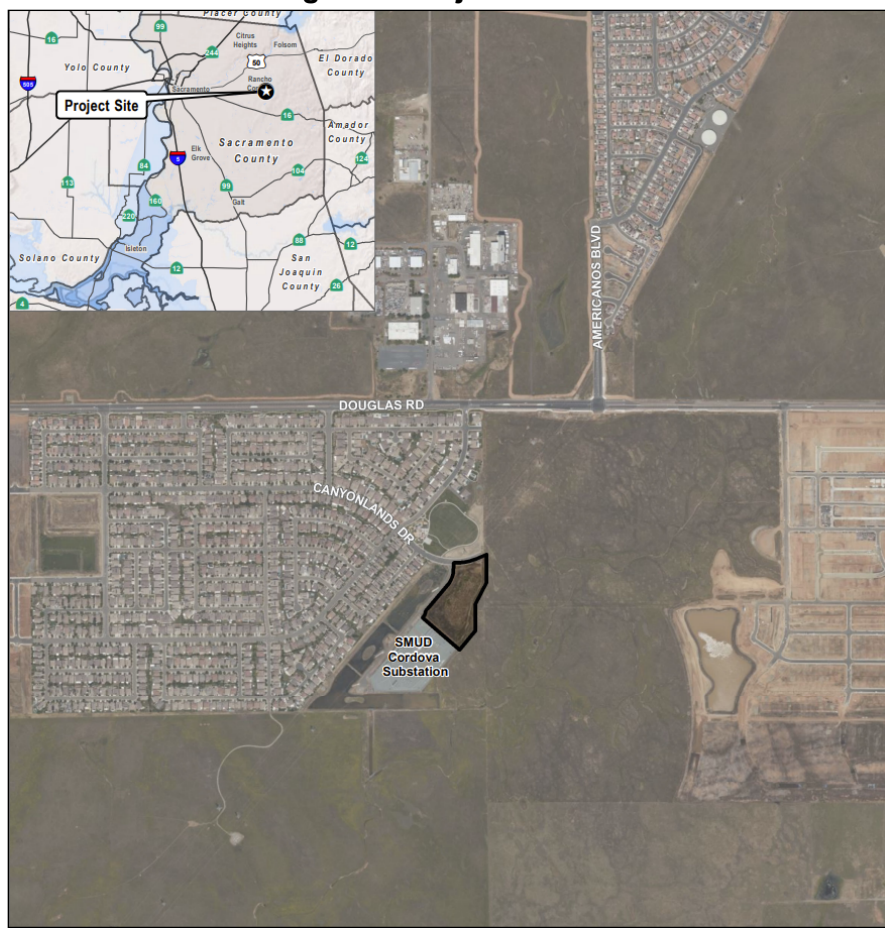
RESULT OF RECOMMENDED ACTION

Staff will forward the Planning Commission's recommendation to the City Council at their regularly scheduled meeting on July 17, 2023.

BACKGROUND

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 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 site to the east, which is designated as a preserve. The existing SMUD Cordova Substation is located south of the Project site.

Figure 1: Project Location



PROJECT DESCRIPTION

Sunridge Energy, LLC is proposing a Zoning Text Amendment to require a Conditional Use Permit for battery energy storage systems in the Limited Commercial (LC) zone within the Sunridge Specific Plan and a Conditional Use Permit to operate a 200-megawatt battery energy storage system project. 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.

Zoning Text Amendment

The project site has an existing designation of Sunridge Specific Plan Limited Commercial (LC). The Sunridge Specific Plan was adopted by the Sacramento County Board of Supervisors in 2002, prior to incorporation. Due to a Supreme Court Ruling in 2007, the specific plan was rescinded by the City Council in September 2008. While a Revised Final Impact Report was certified by the City Council in 2011, the specific plan was not reapproved and development regulations default to Title 23, Zoning Code. However, the zoning still references the specific plan, which is why the term is referenced in this staff report.

A Zoning Text Amendment is required in order to permit the operation of a Battery Energy Storage System (BESS) facility. Proposed amendments are outlined in Attachment 4 of this staff report and are shown in a track change format. The amendments incorporate the BESS facilities into Chapter 23.907 of the Zoning Code. This section deals with development standards and regulations for utility, transportation and communication uses. A definition of what a BESS facility is has also been incorporated into Chapter 23.1104 General Definitions. Chapter 23.1000 Special Purpose Zones, is being amended to reflect the requirement for the Conditional Use Permit for a BESS facility in the Sunridge Specific Plan Limited Commercial zoning district. This does not apply to any other LC zoned parcels that may lie within other areas of the City. It is specific to parcel that have this zoning designation.

Conditional Use Permit

The proposed project will include enclosures that will house modular battery units. These enclosures are generally 50 ft. long by 10 ft. wide by 15 ft. tall but can vary depending on the manufacturer used. Batteries will be housed in containers or purpose-built enclosures. The project will be unstaffed, with remote operational control and periodic inspections and maintenance performed as necessary. These types of facilities can:

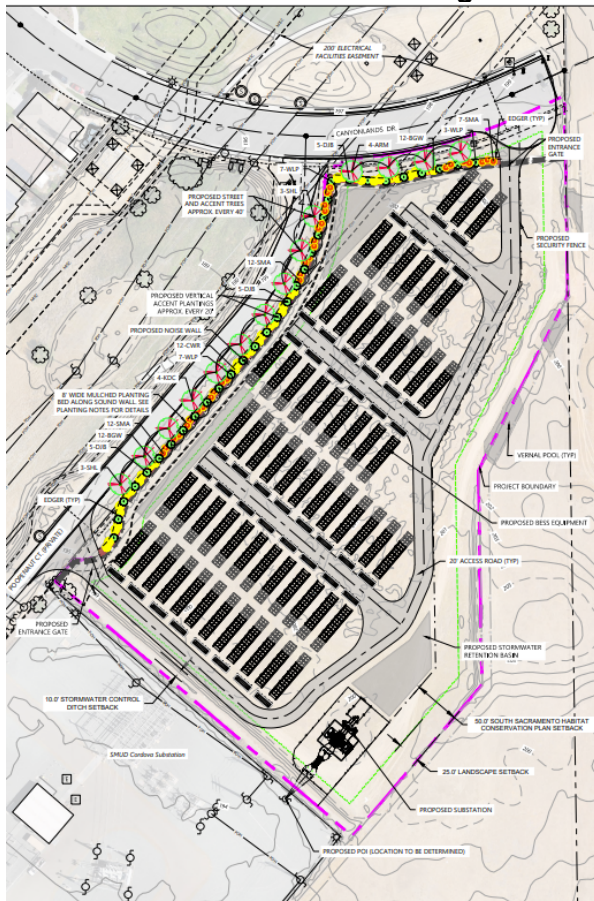
- Help provide back-up power during emergencies like blackouts from storms, equipment failures, or accidents. BESS strengthen grid resilience and can even reduce power outages.
- Lower costs for consumers by storing energy when the price of electricity is low and discharging that energy back onto the grid during peak demand.
- Balance power supply and demand instantaneously, which makes the electrical grid more resilient, efficient, and cleaner than ever before.

Each individual module is monitored and controlled to ensure safe and efficient operations, and every 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. The systems will be designed, constructed, and operated pursuant to the 2019 California Fire Code. The fire protection system for the facility is discussed in greater detail in a section below.

The site includes one gated access point off of Canyonlands Drive near the northeast corner of the site. The site can also be access near the southwest corner of the property off of an existing private drive, also known as Poopenaut Court. This will also be a secured, gated entrance. This

The proposed landscaping that is proposed adjacent to the screen wall is a mixture of trees and vertical evergreen shrubs. At least 25% of the trees proposed to be planted must be a minimum 24-inch box size. Per the landscape plan, all trees at installation will be 24-inch box size. The trees vary in height at maturity between 20 ft. and up to 35 ft. depending on the species. The evergreen shrubs can reach a height of 10 ft. at maturity and 6 ft. wide. The remaining shrubs to be planted around the site can have varying heights from 4 ft. up to 8 ft. This combination of landscaping trees and shrubs will soften the look of the screen wall. The preliminary landscape plan is shown in **Figure 3** below.

Figure 3 - Landscape Plan



SOLAR ORDINANCE - SCREENING REQUIREMENTS

- 23.11.03.00 LANDSCAPE DESIGN AND PLANTING REQUIREMENTS
- PLANT TYPE: LANDSCAPE PLANTING SHALL EMPHASIZE DROUGHT-TOLERANT AND NATIVE SPECIES ESPECIALLY ALONG NATURAL OPEN SPACE AREAS, SHALL COMPLEMENT THE ARCHITECTURAL DESIGN OF STRUCTURES ON THE SITE, AND SHALL BE SUITABLE FOR THE SOIL AND CLIMATIC CONDITIONS SPECIFIC TO THE SITE.
 - PLANTING LAYOUT AND PLANT DIVERSITY: PLANT SELECTION SHALL VARY IN TYPE AND PLANTING PATTERNS. MONOCULTURAL PLANTING PATTERNS ARE PREFERRED OVER UNIFORM AND EXCESSIVELY SYMMETRICAL PLANTING PATTERNS. USE OF FLOWERING TREES AND COLORFUL PLANTINGS IS ENCOURAGED IN CONJUNCTION WITH EVERGREEN SPECIES. GROUPINGS OF SHRUBS SHALL CONTAIN MULTIPLE PLANT TYPE, INTERSPERSED WITH VARIING HEIGHTS AND BLOOMING SEASONS FOR YEAR-ROUND INTEREST.
 - STREET AND PARKING LOT TREES: STREET AND PARKING LOT TREES SHALL BE SELECTED FROM THE CITY'S ADOPTED MASTER LIST OF STREET TREES AND PARKING LOT TREES. A MINIMUM OF 30 PERCENT OF THE STREET TREES AND PARKING LOT TREES, RESPECTIVELY, SHALL BE AN EVERGREEN SPECIES.
 - TREES PLANTED WITHIN 10 FEET OF A STREET, SIDEWALK, PAVED TRAIL, OR WALKWAY SHALL BE A DEEP-ROOTED SPECIES OR SHALL BE SEPARATED FROM HARDSCAPES BY A ROOT BARRIER TO PREVENT PHYSICAL DAMAGE TO PUBLIC INFRASTRUCTURE.
 - PLANTING SIZE, SPACING, AND PLANTER WIDTHS: IN ORDER TO ACHIEVE AN IMMEDIATE EFFECT OF A LANDSCAPE INSTALLATION AND TO ALLOW SUSTAINED GROWTH OF PLANTING MATERIALS, MINIMUM PLANT MATERIAL SIZES, PLANT SPACING, AND MINIMUM PLANTER WIDTHS (UNDER MEASUREMENT) ARE AS FOLLOWS:
 - TREES: THE MINIMUM PLANTING SIZE FOR TREES SHALL BE 15-GALLON, WITH 25 PERCENT OF ALL TREES ON A PROJECT SITE PLANTED AT A MINIMUM 24-INCH BOX SIZE FOR COMMERCIAL, OFFICE, COMMUNITY/CLUB, AND INDUSTRIAL DEVELOPMENT. TREE SPACING WITHIN THE PERMANENT PLANTERS ALONG STREETS AND ADJACENT RESIDENTIAL PROPERTY SHALL BE PLANTED NO FARTHER APART ON CENTER THAN THE MATURE DIAMETER OF THE PROPOSED SPECIES. MINIMUM PLANTER WIDTHS FOR TREES SHALL BE BETWEEN FIVE AND 10 FEET, CONSISTENT WITH THE CITY-ADOPTED MASTER TREE LIST FOR STREET TREES AND PARKING LOT TREES.
 - SHRUBS: SHRUB PLANTING SHALL BE A MINIMUM FIVE-GALLON SIZE. THE MINIMUM PLANTER WIDTH FOR SHRUBS IS FOUR FEET.
 - GROUND COVER: PLANTS USED FOR MASS PLANTING MAY BE GROWN IN FLATS OF UP TO 64 PLANTS OR IN INDIVIDUAL ONE-GALLON CONTAINERS. ROOTED CUTTINGS FROM FLATS SHALL BE PLANTED NO FARTHER APART THAN 12 INCHES ON CENTER, AND CONTAINERIZED WOODS/SHRUB GROUND COVER PLANTINGS SHALL BE PLANTED NO FARTHER APART THAN THREE FEET ON CENTER IN ORDER TO ACHIEVE FULL COVERAGE WITHIN ONE YEAR. MINIMUM PLANTER WIDTH FOR GROUND COVER IS TWO FEET, WITH THE EXCEPTION OF SUE, WHICH REQUIRES A MINIMUM PLANTER WIDTH OF SIX FEET.
 - ADDITIONAL SPACING/PLANTING: TREE SPACING SHALL ENSURE UNOBSTRUCTED ACCESS FOR VEHICLES AND PEDESTRIANS AND PROVIDE CLEAR VISION AT INTERSECTIONS. SPECIFICALLY, TREE PLANTING SHALL COMPLY WITH THE FOLLOWING SPACING CRITERIA:
 - TREES OR SHRUBS WITH A FULL-GROWN HEIGHT EQUAL TO OR GREATER THAN 30 INCHES SHALL NOT BE PLANTED IN ANY CLEAR VISION TRIANGLE.
 - A MINIMUM DISTANCE OF 15 FEET IS REQUIRED BETWEEN THE CENTER OF TREES AND SHRUBS TO STREETLIGHT STANDARDS AND FIRE HYDRANTS.

BUFFER & SCREENING PLANT SPECIES LIST

OVERSTORY TREE	CODE	QTY.	COMMON/BOTANICAL NAME	SIZE (AT INSTALLATION)	SPACING O.C.	MATURE SIZE
SHRUB	10	1	West Coast Privet / Ligustrum japonicum 'Virens'	5 GAL	20' O.C.	10' H x 10' W
SHRUB	11	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	12	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	13	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	14	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	15	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	16	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	17	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	18	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	19	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W
SHRUB	20	1	San Diego Redwood / Liquidambar styraciflua	5 GAL	20' O.C.	10' H x 10' W

NOTE: 1) QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY. 2) H.T. SPECIES MINIMUM SPECIES HEIGHT UPON INSTALLATION. 3) 45 CONT. UPSIDE CONTAINER UNTIL MINIMUM PLANT SIZE REQUIREMENT IS MET.

BUFFER & SCREENING PLANT MATERIAL



The Applicant had a Visual Impact Assessment prepared for the project which was utilized as part of the preparation of the environmental document for the project. Various renderings depicting how the facility will be screened from view have been provided as part of the project submittal. As show in **Figure 4**, the BESS enclosures look similar to a shipping container. They are 50 feet long by 10 feet wide and 15 feet tall. This may vary depending on the battery, enclosure and BESS system manufacturer selected for the project, but the dimensions would not get larger than what is stated above. **Figures 5 through 8**, depict the existing and proposed view of the site from three observation points. **Figure 5** indicates where the observation points are located in the immediate area. As can be seen from these renderings, the existing view includes vacant land, as well as various equipment, poles, power lines, etc. from the overhead transmission lines and the adjacent SMUD substation. With the installation of a 12-foot wall and dense landscaping, the BESS facility itself is not visible from these observation points. The proposed project helps to soften the view of some of the existing electrical poles and facilities in the area. While depicted on the plan to only include the 12-foot wall on the western boundary, the project has been conditioned to continue the wall along the northern boundary to view any visibility from Canyonlands.

Figure 4 - Battery Storage Units



Photo A-1: Typical modular battery energy storage unit



Photo A-2: Illustration of typical battery energy storage system enclosure and medium-voltage transformers/inverters

Figure 5 - Key Observation Points



Figure 6 - Observation Point 1 (Existing and Proposed)



Figure 7 - Observation Point 2 (Existing and Proposed)

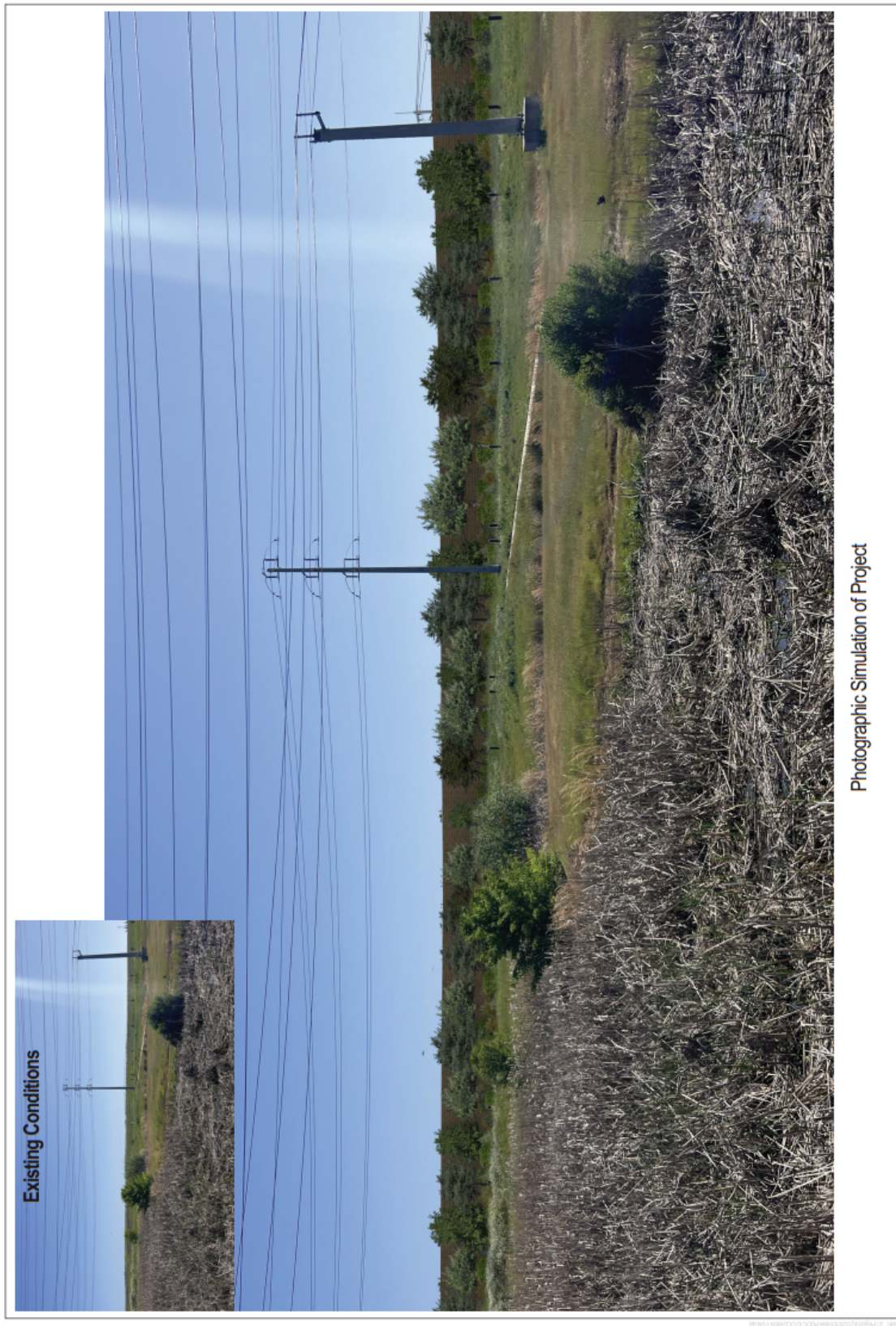


Figure 8 - Observation Point 3 (Existing and Proposed)



FIRE PROTECTION SYSTEM

The proposed project will use battery storage systems that are National Fire Protection Association 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.

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.

NEIGHBORHOOD MEETING

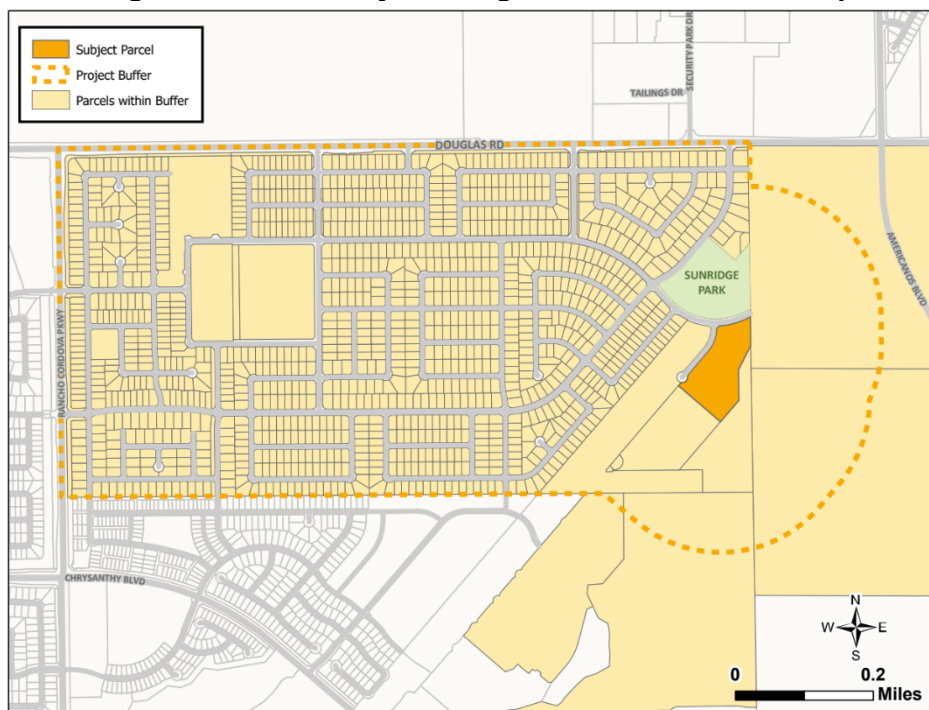
As part of the project review, Staff required that the Applicant conduct a community meeting with property owners and tenants within the area. The radius for the mailing included all properties within 500 feet of the project boundary, as well as homes and property owners within

a radius greater than the minimum required 500', to ensure that homes that may be affected, received notification of the meeting. A copy of the radius map depicting all the properties that received a notice is below.

The first community meeting was held on Tuesday, June 14, 2022 in person at City Hall from 5:30PM to 7:00PM. Approximately two people attended the meeting. The Applicant displayed posterboards of the various project graphics showing what the proposed project would look like. The format allowed attendees to walk round and view the graphics, while asking questions about the project. The Applicant team was able to sufficiently answer any questions that arose and no further concerns were received.

A second community meeting was held on Monday, April 10, 2023 in person at City Hall from 5:30PM to 7:00PM. This meeting was requested by staff after the circulation of the Initial Study/Mitigated Negative Declaration to address any issues that were raised in comments letters received on the environmental document. The same radius mailing list that was used for the first meeting was used for the second meeting. Approximately three people attended the meeting. The Applicant team was able to sufficiently answer any questions that arose and no further concerns were received.

Figure 9: Community Meeting Notification Radius Map



FISCAL IMPACT

Staff anticipates that the project will have no impact to the City's General Fund.

PUBLIC NOTIFICATION PROCESS

There were various opportunities throughout the processing of the application where the public was notified of the project. The Applicant held two community meetings during the application

process. The city sent out a Notice of Intent when the Mitigated Negative Declaration was released for the 30-day public comment period. Finally, a Public Hearing Notice was mailed out regarding the Planning Commission meeting for which this item is scheduled for. The radius list notification that was discussed above in the neighborhood meeting section was used for all notices that were sent out by the Applicant and the City. This notification list included over 1,500 notices and is beyond the minimum requirement of 500 feet from the project boundary, as required by Section 23.11.120 B.4. of the Rancho Cordova Municipal Code.

ENVIRONMENTAL

In accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.), a Draft Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and circulated for the required 30-day review period, from February 3, 2023 and ending March 6, 2023. Areas identified in the Draft IS/MND that required mitigation measures to avoid significant effects on the environment were Geology and Soils and Mandatory Findings of Significance. A mitigation measure has been placed upon the project to ensure that the appropriate measures are taken in the event that any archaeological resources are exposed during construction. While none of these features were identified on the site or are known to be on the site, the mitigation measure provides extra assurance that all appropriate measures will be taken if any are discovered.

During the public review period, eight comment letters and/or emails on the Draft IS/MND were received from outside agencies and interested parties. As a result of comments received on the Draft IS/MND, minor revisions were made to the Draft IS/MND, however there were no substantial revisions that would require recirculation of the document. The revisions proposed in the Final MND do not meet the criteria for recirculation provided in Section 15073.5(c) of the CEQA Guidelines, nor were project revisions required based upon the comments received.

RECOMMENDED MOTIONS

Staff recommends that the Planning Commission adopt a Resolution recommending that the City Council:

1. Find the Initial Study-Mitigated Negative Declaration with mitigation measures that was prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project is adequate;
2. Adopt an Ordinance for a Zoning Text Amendment to amend Title 23; and
3. Adopt a Resolution for the Juniper Creek Energy Storage Conditional Use Permit.

ATTACHMENT(S)

1. Final Mitigated Negative Declaration
2. MND Response to Comments
3. Resolution
4. Exhibit A to the Resolution - Zoning Text Amendments
5. Exhibit B to the Resolution - Project Plans
6. Exhibit C to the Resolution - Conditions of Approval
7. Exhibit D to the Resolution - Mitigation Monitoring and Reporting Plan
8. Visual Impact Analysis

Initial Study/Mitigated Negative Declaration

Juniper Creek Energy Storage Project

MAY 2023

Prepared for:

VESPER ENERGY

125 E John Carpenter Fwy, Suite 525
Irving, Texas 75062
Contact: Parker Hills

Prepared by:

DUDEK

1102 R Street
Sacramento, California 95811
Contact: Keith Carwana

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D	Geotechnical Site Rating
E	Phase I Environmental Site Assessment
F	Noise and Vibration Assessment Letter Report

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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 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 7:30 a.m. and 5:30 p.m., Monday through Thursday, and 8:00 a.m. and 5:00 p.m. on Friday. The document is also available on the City's website

(<https://www.cityofranhocordova.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.
- **SMUD Facility Upgrades:** Improvements to the existing SMUD Cordova Substation.

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.

SMUD Facility Upgrades

SMUD has identified a need for the existing SMUD Cordova Substation to be modified and reconfigured to interconnect the Project and accommodate the Project's gen-tie line. The improvements will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding the third breaker and a disconnect switch. Additional details related to the improvements are provided below:

- Installation of a third 230-kV circuit breaker with one disconnect switch
- Installation of one 230-kV bus
- Installation of one metering unit which includes one 138-kV transformer and one 245-kV transformer
- Design, installation, and/or modification of control functions (metering, communication, security, etc.) within the existing control building

Specific upgrades will be finalized through the ongoing interconnection process with SMUD.

The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation.

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/Cordova Substation improvements	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

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
				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

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 - Stormwater Pollution Prevention 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). The Project would also entail improvements to the existing Cordova Substation to interconnect the Project and accommodate the Project's gen-tie line; all Cordova Substation improvements will be located within the substation's existing developed footprint.

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. Although the improvements to the existing Cordova Substation (additional circuit breaker and transformer) may be visible, the improvements would be entirely located within the Cordova Substation's developed footprint and be consistent with existing views. 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 37 miles 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. Improvements to the existing Cordova Substation are also a part of the Project but would be entirely located within the Cordova Substation’s developed footprint and be consistent with existing views. 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). The improvements to the existing Cordova Substation would be entirely located within the Cordova Substation’s developed footprint and therefore, no conversion of farmland would occur. 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. The improvements to the existing Cordova Substation would be entirely located within the Cordova Substation’s developed footprint and therefore, there would be no conflicts with existing zoning for agricultural use, or a Williamson Act contract. 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). The improvements to the existing Cordova Substation would be entirely located within the Cordova Substation’s developed footprint and therefore, there would be no conflicts with existing zoning for forest land or timberland. 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?	☐	☐	☒	☐
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 O₃ 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 O₃ standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O₃ 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. The Project also entails improvements to the existing Cordova Substation which would not introduce additional 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 ROG, NO_x, CO, PM₁₀, and PM_{2.5}. PM₁₀ 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; PM₁₀ = 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
<i>SMAQMD Threshold</i>	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; PM₁₀ = 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, PM₁₀, 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 PM₁₀ 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 O₃ 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 O₃, 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 O₃ 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 O₃.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM₁₀ 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 PM₁₀ 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, PM₁₀, and PM_{2.5} Concentrations (Hot-Spot Analysis), states that “CO, PM₁₀, 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
<i>Significance Threshold</i>	<i>1.0</i>	<i>1.0</i>
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. The improvements to the existing Cordova Substation would be located entirely within the substation's developed footprint, which is devoid of habitat and natural landforms.

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. The improvements to the existing Cordova Substation would be located entirely within the substation's developed footprint, which is devoid of habitat and natural landforms. 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 from direct impacts to the existing vernal pools. The improvements to the existing Cordova Substation would be located entirely within the substation's developed footprint, which is devoid of wetlands. 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a 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. In addition, the improvements to the existing Cordova Substation would be located entirely within the substation's developed and previously disturbed footprint. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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. The improvements to the existing Cordova Substation would be entirely located within the Cordova Substation's developed footprint; there would be no potential for soil erosion or loss of topsoil associated with the Cordova Substation improvements. 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 CO₂e per year. Additionally, the Project is compared to the SMAQMD NO_x screening levels.

The Project would exceed the NO_x 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

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Year	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; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = 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 CO₂e. As previously discussed, the SMAQMD identifies a GHG emission threshold for construction-related emissions of 1,100 MT CO₂e 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 ₂ O	CO ₂ e
	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
<i>SMAQMD Threshold</i>				<i>1,100</i>
Threshold Exceeded?				No

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = 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 CO₂e per year. The Project would not exceed the SMAQMD threshold of 1,100 MT CO₂e 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 and improvements to the existing Cordova Substation 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 CO₂e 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 tomorrow's 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 with associated improvements to the existing Cordova Substation, 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 CO₂e 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?	☐	☐	☐	☒
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. The Project's improvements to the existing Cordova Substation would not present a significant hazard as the existing Cordova Substation is already operational and operates in compliance with applicable federal, state, and local requirements.

- 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). The Project's improvements to the existing Cordova Substation would not present a significant hazard as the existing Cordova Substation is already operational and in compliance with CFC requirements. 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. The improvements to the existing Cordova Substation would not entail any operational changes related to hazardous emissions or substances. 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. The improvements to the existing Cordova Substation would be located within the existing Cordova Substation's developed footprint and would not entail any operational changes related to airport safety hazards or excessive noise levels. 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. The improvements to the existing Cordova Substation would be located within the existing Cordova Substation's developed footprint and would not entail any operational changes related to wildland fire risk. Impacts would be less than significant.

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 and associated improvements to the existing Cordova Substation. 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. The improvements to the existing Cordova Substation would be located entirely within the existing Cordova Substation's developed footprint which would not change the amount of existing impervious surfaces on the Cordova Substation site.

- 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. The improvements to the existing Cordova Substation would be located entirely within the existing Cordova Substation's developed footprint which would not change the amount of existing impervious surfaces on the Cordova Substation site.

- 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. The improvements to the existing Cordova Substation would be located entirely within the existing Cordova Substation's developed footprint which would not change the amount of existing impervious surfaces on the Cordova Substation site.

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

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. The improvements to the existing Cordova Substation would be located entirely within the existing Cordova Substation's developed footprint which would not alter the existing drainage of the Cordova Substation site.

- 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?	☐	☐	☐	☒
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. The improvements to the existing Cordova Substation would be located within the existing Cordova Substation's developed footprint which would not divide an established community. 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 and improvements to the existing Cordova Substation. 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 and there would be no operational or use changes associated with the Cordova Substation improvements. 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?	☐	☐	☐	☒
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 is 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?	☐	☐	☒	☐
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/Cordova Substation improvements, 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 and improvements to the existing Cordova Substation. 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. No operational changes are anticipated due to the Project's improvements to the existing Cordova Substation. 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 and associated improvements to the existing Cordova Substation to support the BESS. 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, including the Cordova Substation improvements, 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 and associated improvements to the existing Cordova Substation to support the BESS. 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
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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 associated improvements to the existing Cordova Substation to support the BESS, 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. No additional operational vehicle trips above existing conditions are anticipated to be generated by the improvements to the existing Cordova Substation. 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). No additional operational vehicle trips above existing conditions are anticipated to be generated by the improvements to the existing Cordova Substation. 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 and there would be no roadway changes as a result of the improvements to the existing Cordova Substation. 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 and associated improvements to the existing Cordova Substation. 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 area during construction and operation. As such, the Project would not result in inadequate emergency access. No impact would occur.

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 (CalRecycle 2022). As such, the Sacramento Landfill would have the capacity to serve the Project. With adherence to the applicable 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 and include associated improvements to the existing Cordova Substation to accommodate the BESS. 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. The Project's associated improvements to the existing Cordova Substation are not expected to heighten fire risk because they will be located entirely within the developed footprint and there will be no operational changes as a result of the improvements.

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's associated improvements to the existing Cordova Substation are not expected to heighten fire risk because they will be located entirely within the developed footprint and there will be no operational changes as a result of the improvements.

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 along with improvements to the existing Cordova Substation that would be located entirely within the substation’s developed footprint. 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.

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4.2 List of Preparers

City of Rancho Cordova

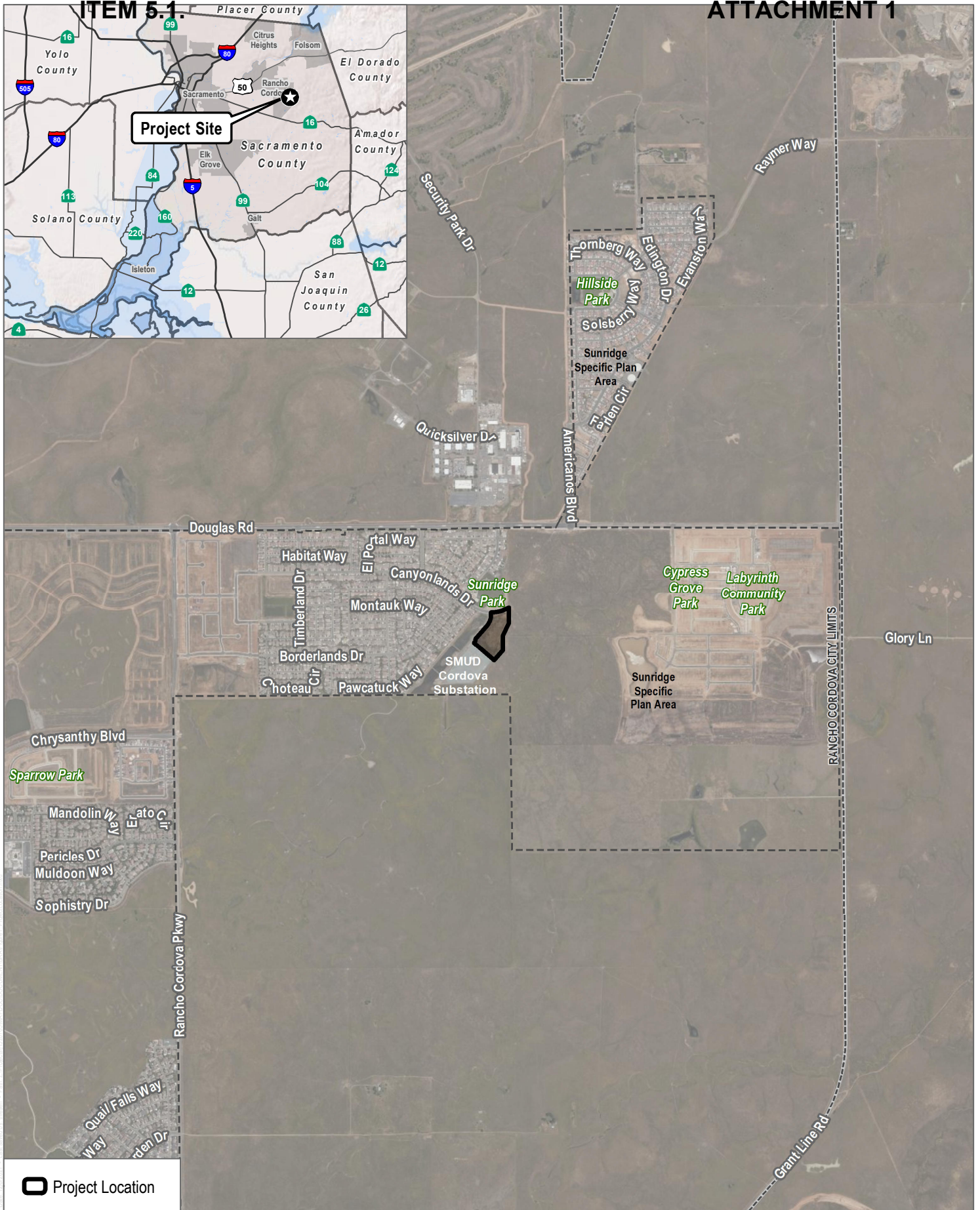
Darcy Goulart, Planning Manager

DUDEK

Keith Carwana, Project Manager

Candice Magnus, Project Manager

Tyler Friesen, GIS Specialist



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

FIGURE 1

Project Location

Initial Study for the Juniper Creek Energy Storage Project

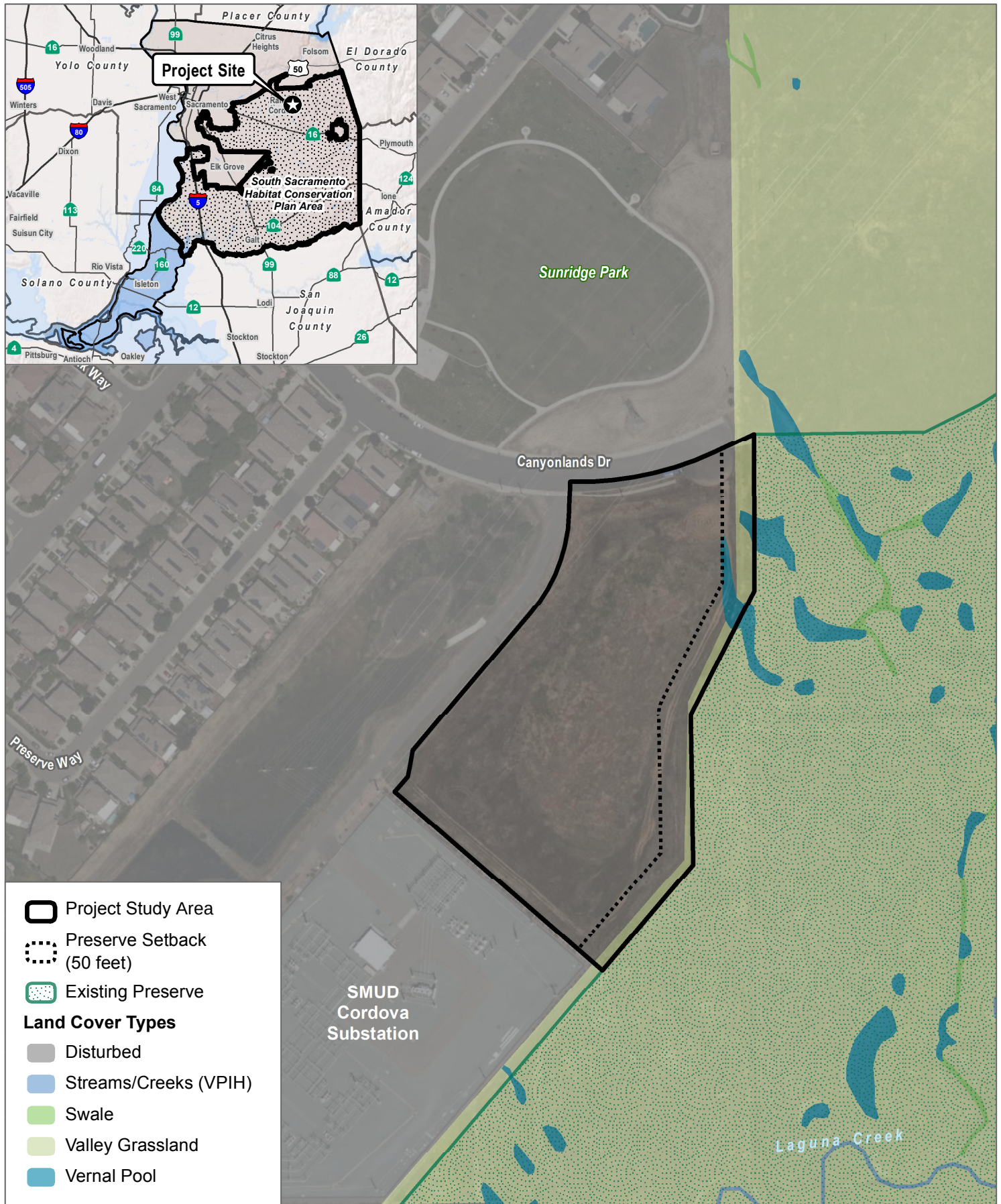
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SOURCE: Bing imagery 2021; Sacramento County 2021; Open Street Maps 2019

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SOURCE: Bing Imagery 2021; County of Sacramento 2015

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

May 9, 2023

13267

Parker Hills
Vesper Energy
125 E. John Carpenter Fwy, Ste 525
Irving, Texas 75062

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

Dear Mr. Hills:

Dudek is pleased to present Vesper Energy with the following air quality and greenhouse gas (GHG) analysis for the proposed Juniper Creek 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.

The Project also entails improvements to the existing SMUD Cordova Substation to interconnect and accommodate the Project. The improvements will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding an additional circuit breaker and disconnect switch. Specific upgrades will be finalized through the ongoing interconnection process with SMUD. The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation.

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 $\text{PM}_{2.5}$). 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 $\text{CO}_2\text{e} = (\text{MT of a GHG}) \times (\text{GWP of the GHG})$. 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 2022¹ and would last approximately 12 months, ending in October 2023. The 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/Cordova Substation upgrades – 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	20	20	0	Aerial Lifts	2	10

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 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.

ITEM 5.1.

ATTACHMENT 1

TO: PARKER HILLS

SUBJECT: JUNIPER CREEK ENERGY STORAGE PROJECT AIR QUALITY AND GREENHOUSE GAS EMISSIONS STUDY

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
Installation/Cordova Substation upgrades				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
				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).

TO: PARKER HILLS

SUBJECT: JUNIPER CREEK ENERGY STORAGE PROJECT AIR QUALITY AND GREENHOUSE GAS EMISSIONS STUDY

Compliance with SMAQMD Rule 403 would limit fugitive dust (PM₁₀ 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 SF₆ gas installed at the proposed switchyard. SF₆ has a GWP of 23,900 using CO₂ at a reference value of 1 (IPCC 2007). The switchyard would include six 138 kilovolt (kV) breakers that would contain SF₆ gas. It is estimated that the Project would maintain a total of 2,400 lbs of SF₆ 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 SF₆ 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 CO₂ 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

TO: PARKER HILLS

SUBJECT: JUNIPER CREEK ENERGY STORAGE PROJECT AIR QUALITY AND GREENHOUSE GAS EMISSIONS STUDY

(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 ₂ H ₄	Ethylene
CO ₂	Carbon dioxide
CO	Carbon monoxide

Table 2. Chemical Constituents Emitted

Pollutants	Chemical Names
C ₃ H ₆	Propylene
C ₂ H ₆	Ethane
C ₃ H ₆	Propene
C ₃ H ₈	Propane
O ₂	Oxygen
N ₂	Nitrogen
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 PM₁₀ 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 PM₁₀ 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 O₃ 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 O₃ standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O₃ 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 ROG, NO_x, CO, PM₁₀, and PM_{2.5}. PM₁₀ 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

Table 3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

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; PM₁₀ = 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; PM₁₀ = 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, PM₁₀, 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 PM₁₀ 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 PM₁₀ 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, PM₁₀, 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.

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Health effects associated with O₃ 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 O₃, 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 O₃ 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 O₃.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM₁₀ 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 PM₁₀ 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, PM₁₀, and PM_{2.5} Concentrations (Hot-Spot Analysis), states that "CO, PM₁₀, 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

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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
<i>Significance Threshold</i>	<i>1.0</i>	<i>1.0</i>
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

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)		
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 CO₂e 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 NO_x screening level." Otherwise, SMAQMD recommends a construction significance threshold of 1,100 MT CO₂e per year.

Chapter 3, Section 3.3.1 of the SMAQMD CEQA Guide provides that the NO_x 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 CO₂e 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 CO₂e are then screened out of further requirements. For projects that exceed 1,100 MT CO₂e 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 CO₂e 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 CO₂e per year. Also, as discussed in Section 4.1, the project is compared to the SMAQMD NO_x screening levels.

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The project would exceed the NO_x 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 ₂ O	CO ₂ e
	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; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = 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 CO₂e. 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 CO₂e 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 ₂ O	CO ₂ e
	Metric Tons per Year			
Area	0.00	0.00	0.00	130.09
Energy	112.73	0.01	0.00	113.37

Table 8. Estimated Annual Operation GHG Emissions

Emissions Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Mobile	1.34	0.00	0.00	1.36
Off-road	0.25	0.00	0.00	0.26
Total				114.98
<i>SMAQMD Threshold</i>				<i>1,100</i>
Threshold Exceeded?				No

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = 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 CO₂e per year. The Project would not exceed the SMAQMD threshold of 1,100 MT CO₂e 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 CO₂e 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 tomorrow's 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 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	<i>Consistent.</i> 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	<i>Consistent.</i> Motor vehicles driven by the project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.

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).

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

Scoping Plan Measure	Measure Number	Project Consistency
Last-Mile Delivery	N/A	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	<i>Not applicable.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	<i>Not applicable.</i> 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 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction ▪ Tractor-Trailer GHG Regulation ▪ Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	<i>Consistent.</i> The project would be constructed in accordance with CALGreen and Title 24 building standards.
Energy Efficiency (Natural Gas)	CR-1	<i>Consistent.</i> The project would be constructed in accordance with CALGreen and Title 24 building standards.

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

Scoping Plan Measure	Measure Number	Project Consistency
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	<i>Consistent.</i> The project would support the development of renewable energy through energy storage.
Renewables Portfolio Standard (50% by 2050)	N/A	<i>Consistent.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Water Sector		
Water Use Efficiency	W-1	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Water Recycling	W-2	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	<i>Not applicable.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	<i>Not applicable.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	<i>Not applicable.</i> 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
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	<i>Not applicable.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	<i>Consistent.</i> The project would include recycling during both construction and operation.
Increase Production and Markets for Compost and Other Organics	RW-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Forests Sector		
Sustainable Forest Target	F-1	<i>Not applicable.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
SF ₆ Limits in Non-Utility and Non-Semiconductor Applications	H-2	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	<i>Not applicable.</i> 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
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
SF ₆ Leak Reduction Gas Insulated Switchgear	H-6	<i>Consistent.</i> 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	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
50% Reduction in Black Carbon Emissions	N/A	<i>Not applicable.</i> The project would not prevent CARB from implementing this measure.
Agriculture Sector		
Methane Capture at Large Dairies	A-1	<i>Not applicable.</i> 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; SF₆ = 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

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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,

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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

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Attachment A

CalEEMod Emissions Outputs

Annual	2
Summer	31
Winter	56
SF6_Calculations	81

ITEM 5.1.**ATTACHMENT 1**

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

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.

ITEM 5.1.**ATTACHMENT 1**

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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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

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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

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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

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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

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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	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	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	

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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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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

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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 - 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

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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 - 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

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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****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

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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

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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

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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 s 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 s 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

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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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	ROG	NOx	CO	SO2	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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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**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**

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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

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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

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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

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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
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11.0 Vegetation

ITEM 5.1.**ATTACHMENT 1**

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

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.

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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

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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

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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

ITEM 5.1.**ATTACHMENT 1**

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	7,007.661 0	7,007.661 0	1.7002	0.2730	7,131.522 6
2023	5.0194	49.9872	44.2726	0.0937	1.9768	2.3470	3.1130	0.3199	2.1817	2.2875	0.0000	9,102.946 1	9,102.946 1	2.3835	0.2637	9,186.756 0
Maximum	5.0194	49.9872	44.2726	0.0937	1.9769	2.3470	3.2708	0.3200	2.1817	2.2875	0.0000	9,102.946 1	9,102.946 1	2.3835	0.2730	9,186.756 0

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	7,007.661 0	7,007.661 0	1.7002	0.2730	7,131.522 6
2023	5.0194	49.9872	44.2726	0.0937	1.2477	2.3470	2.7325	0.2412	2.1817	2.2875	0.0000	9,102.946 1	9,102.946 1	2.3835	0.2637	9,186.756 0
Maximum	5.0194	49.9872	44.2726	0.0937	1.2478	2.3470	2.7325	0.2412	2.1817	2.2875	0.0000	9,102.946 1	9,102.946 1	2.3835	0.2730	9,186.756 0

ITEM 5.1.**ATTACHMENT 1**

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	N2O	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

ITEM 5.1.**ATTACHMENT 1**

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	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	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	

ITEM 5.1.**ATTACHMENT 1**

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

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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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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		2,812.754 6	2,812.754 6	0.9097		2,835.497 1
Total	1.4688	16.8638	13.1291	0.0291	0.6628	0.6474	1.3102	0.0716	0.5956	0.6672		2,812.754 6	2,812.754 6	0.9097		2,835.497 1

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

ITEM 5.1.**ATTACHMENT 1**

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	2,812.754 6	2,812.754 6	0.9097		2,835.497 1
Total	1.4688	16.8638	13.1291	0.0291	0.2983	0.6474	0.9457	0.0322	0.5956	0.6278	0.0000	2,812.754 6	2,812.754 6	0.9097		2,835.497 1

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

ITEM 5.1.**ATTACHMENT 1**

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		5,092.891 6	5,092.891 6	1.6282		5,133.597 0
Total	2.8677	32.1600	22.3723	0.0529	1.3256	1.2563	2.5820	0.1431	1.1578	1.3009		5,092.891 6	5,092.891 6	1.6282		5,133.597 0

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		1,590.544 6	1,590.544 6	0.0639	0.2521	1,667.272 9
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		1,914.769 4	1,914.769 4	0.0720	0.2730	1,997.925 6

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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		5,092.665 2	5,092.665 2	1.6281		5,133.368 7
Total	2.6606	28.9237	22.2045	0.0529	1.3256	1.1077	2.4333	0.1431	1.0210	1.1642		5,092.665 2	5,092.665 2	1.6281		5,133.368 7

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		1,537.480 1	1,537.480 1	0.0613	0.2438	1,611.656 6
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		1,851.114 2	1,851.114 2	0.0686	0.2637	1,931.424 6

ITEM 5.1.**ATTACHMENT 1**

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	5,092.665 2	5,092.665 2	1.6281		5,133.368 7
Total	2.6606	28.9237	22.2045	0.0529	0.5965	1.1077	1.7042	0.0644	1.0210	1.0854	0.0000	5,092.665 2	5,092.665 2	1.6281		5,133.368 7

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		1,537.480 1	1,537.480 1	0.0613	0.2438	1,611.656 6
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		1,851.114 2	1,851.114 2	0.0686	0.2637	1,931.424 6

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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

ITEM 5.1.**ATTACHMENT 1**

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**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

ITEM 5.1.**ATTACHMENT 1**

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**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

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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

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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****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

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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
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Boilers

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

Equipment Type	Number
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11.0 Vegetation

ITEM 5.1.**ATTACHMENT 1**

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

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.

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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

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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

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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

ITEM 5.1.**ATTACHMENT 1**

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	6,983.778 6	6,983.778 6	1.7005	0.2738	7,107.893 6
2023	5.0131	50.0841	44.1573	0.0935	1.9768	2.3470	3.1131	0.3199	2.1818	2.2876	0.0000	9,079.977 6	9,079.977 6	2.3838	0.2646	9,164.051 6
Maximum	5.0131	50.0841	44.1573	0.0935	1.9769	2.3470	3.2709	0.3200	2.1818	2.2876	0.0000	9,079.977 6	9,079.977 6	2.3838	0.2738	9,164.051 6

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	6,983.778 6	6,983.778 6	1.7005	0.2738	7,107.893 6
2023	5.0131	50.0841	44.1573	0.0935	1.2477	2.3470	2.7326	0.2412	2.1818	2.2876	0.0000	9,079.977 6	9,079.977 6	2.3838	0.2646	9,164.051 6
Maximum	5.0131	50.0841	44.1573	0.0935	1.2478	2.3470	2.7326	0.2412	2.1818	2.2876	0.0000	9,079.977 6	9,079.977 6	2.3838	0.2738	9,164.051 6

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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	N2O	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

ITEM 5.1.**ATTACHMENT 1**

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	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	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	

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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		4,855.175 9	4,855.175 9	1.0959		4,882.573 0
Total	2.7747	25.5609	30.1875	0.0507		1.2812	1.2812		1.2114	1.2114		4,855.175 9	4,855.175 9	1.0959		4,882.573 0

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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		2,812.754 6	2,812.754 6	0.9097		2,835.497 1
Total	1.4688	16.8638	13.1291	0.0291	0.6628	0.6474	1.3102	0.0716	0.5956	0.6672		2,812.754 6	2,812.754 6	0.9097		2,835.497 1

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

ITEM 5.1.**ATTACHMENT 1**

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	2,812.754 6	2,812.754 6	0.9097		2,835.497 1
Total	1.4688	16.8638	13.1291	0.0291	0.2983	0.6474	0.9457	0.0322	0.5956	0.6278	0.0000	2,812.754 6	2,812.754 6	0.9097		2,835.497 1

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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		5,092.665 2	5,092.665 2	1.6281		5,133.368 7
Total	2.6606	28.9237	22.2045	0.0529	1.3256	1.1077	2.4333	0.1431	1.0210	1.1642		5,092.665 2	5,092.665 2	1.6281		5,133.368 7

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		1,538.354 4	1,538.354 4	0.0612	0.2439	1,612.571 9
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		1,828.786 8	1,828.786 8	0.0689	0.2646	1,909.363 2

ITEM 5.1.**ATTACHMENT 1**

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	5,092.665 2	5,092.665 2	1.6281		5,133.368 7
Total	2.6606	28.9237	22.2045	0.0529	0.5965	1.1077	1.7042	0.0644	1.0210	1.0854	0.0000	5,092.665 2	5,092.665 2	1.6281		5,133.368 7

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		1,538.354 4	1,538.354 4	0.0612	0.2439	1,612.571 9
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		1,828.786 8	1,828.786 8	0.0689	0.2646	1,909.363 2

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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

ITEM 5.1.**ATTACHMENT 1**

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**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

ITEM 5.1.**ATTACHMENT 1**

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**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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

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****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

ITEM 5.1.**ATTACHMENT 1**

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

ITEM 5.1.**ATTACHMENT 1**

Breaker (kV)	Number of Breakers	Pounds of SF ₆	MT of SF ₆	Leak Rate	Global Warming Potential	MT CO ₂ e
138	6	2,400	1.089	1%	23,900	130.09

Attachment B

Health Risk Assessment Outputs

HRA Calcs	2
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										
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 compositions 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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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 <i>Product Descriptions</i> 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

COMPANY, CONTACT, & PRODUCT INFO



		◦ 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: <i>IndustrialStorageSupport@tesla.com</i> 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: <i>PowerwallSupportNA@tesla.com</i> ◦ Australia/New Zealand: <i>PowerwallSupportNA@tesla.com</i> ◦ Japan: <i>EnergyCustomerSupportJP@tesla.com</i> ◦ Europe/Middle East/Africa: <i>EnergySupportEmea@tesla.com</i>
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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:

COMPANY, CONTACT, & PRODUCT INFO



- Lithium Nickel Cobalt Aluminum Oxide (NCA material), $\text{LiNi}_{0.8}\text{Co}_{0.1}\text{Al}_{0.1}\text{O}_2$;
- Lithium Nickel, Manganese, Cobalt Oxide (NMC material) $\text{LiNi}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1}\text{O}_2$;
- Lithium Nickel, Manganese Oxide (NMO material), $\text{LiNi}_{0.8}\text{Mn}_{0.2}\text{O}_2$
- Lithium Cobalt Oxide, LiCoO_2 ;
- 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

COMPANY, CONTACT, & PRODUCT INFO



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.								

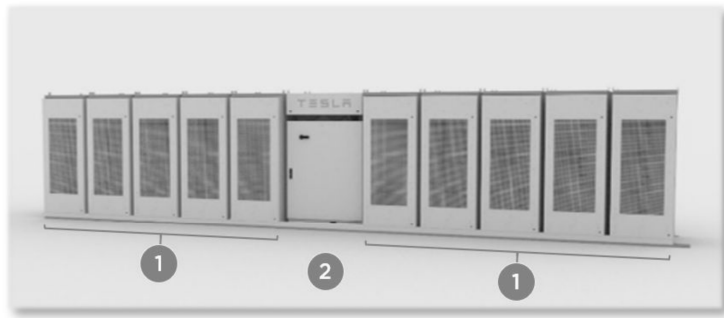


2.3.2 Powerpack

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





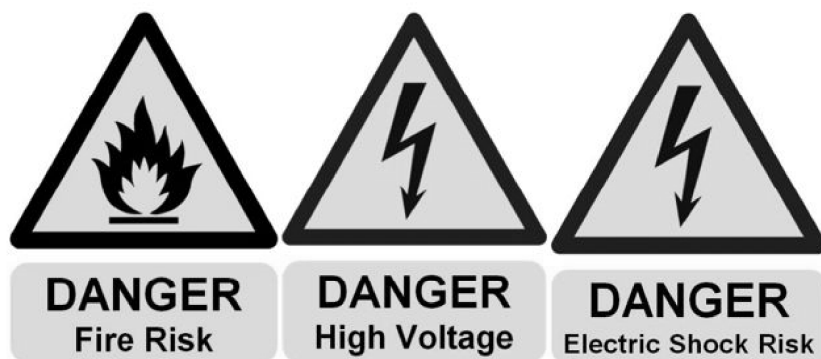
Table 5. Approximate Megapack Specifications

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.

HANDLING, USE, & HAZARD PRECAUTIONS



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.

HANDLING, USE, & HAZARD PRECAUTIONS



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.

HANDLING, USE, & HAZARD PRECAUTIONS



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, POF_3 , 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 ($1,110^{\circ}\text{F}$). 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 / Electrocutation

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 <i>Identification of Company and Contact Information</i> on page 3 • Updated specs according to updated products in <i>SDS Information</i> on page 4 • Added Powerwall part numbers to <i>SDS Information</i> on page 4 • Enhanced firefighting guidance: <i>Firefighting Measures</i> on page 21 • Added guidance in case of emergency: <i>In Case of Emergency</i> on page 19 • Added additional early signs of thermal runaway: <i>Hazards Associated with Vented Electrolyte</i> on page 17



Revision #	Date	Description
		• Updated Powerwall instructions in <i>Shutting Down in an Emergency</i> on page 23
2.3	July 28, 2021	• Added coolant volume for separately shipped Megapack battery modules (<i>SDS Information</i> on page 4) • Clarified firefighting guidance (<i>Firefighting Measures</i> on page 21) • Enhanced product identification information (<i>Product Descriptions</i> on page 7) • Simplified emergency shut-down procedures for Megapack and Powerpack (<i>Shutting Down in an Emergency</i> on page 23)



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Appendix B

Biological Resources Assessment

May 9, 2023

13267.05

Parker Hills
Vesper Energy
125 E. John Carpenter Fwy, Ste 525
Irving, Texas 75062

Subject: Biological Resources Assessment, Juniper Creek Energy Storage Project

Dear Mr. Hills,

Dudek is pleased to present Vesper Energy with this Biological Resources Assessment (BRA) letter report for the proposed Juniper Creek 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

Vesper 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. The Project also entails improvements to the existing SMUD Cordova Substation to interconnect and accommodate the Project. The improvements will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding an additional circuit breaker and disconnect switch. Specific upgrades will be finalized through the ongoing interconnection process with SMUD. The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation.

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)

TO: PARKER HILLS, VESPER ENERGY

SUBJECT: BIOLOGICAL RESOURCES ASSESSMENT, JUNIPER CREEK ENERGY STORAGE PROJECT

- 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 SSHCP 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° Fahrenheit (F) to 59° Fahrenheit (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 graveolens*), 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 field 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 packardii*), vernal pool fairy shrimp (*Branchinecta lynchi*), and several amphibians species (e.g., western spadefoot toad [*Spea hammondi*] 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- CNDDDB 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 hammondi*), 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 packardii*). 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

TO: PARKER HILLS, VESPER ENERGY

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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).

6 References

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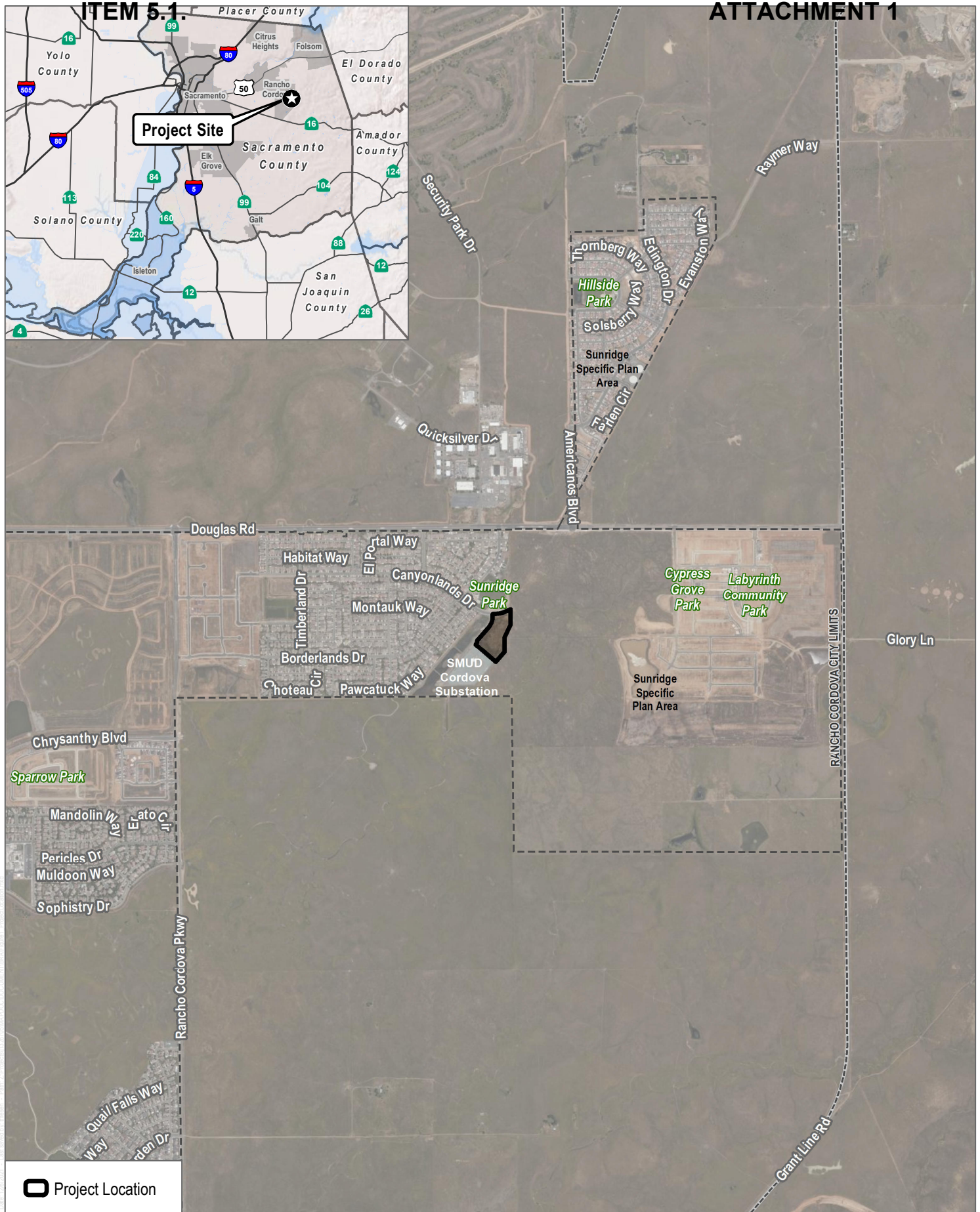
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SOURCE: Bing Imagery 2021; County of Sacramento 2021; Open Street Maps 2019

FIGURE 1

Project Location

Biological Resources Assessment for the Sunridge Energy Storage Project



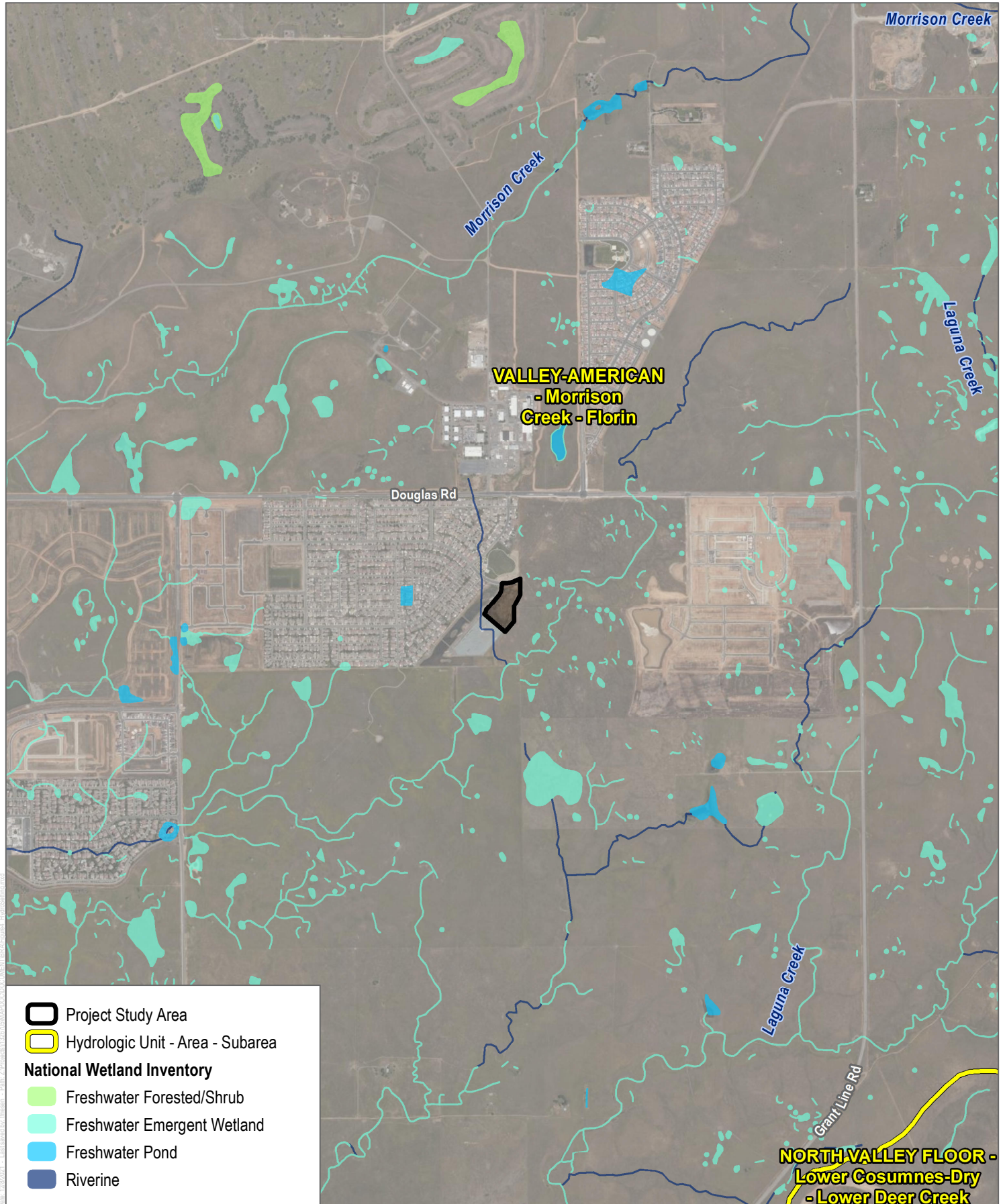
SOURCE: Bing imagery 2021; Sacramento County 2021; Open Street Maps 2019



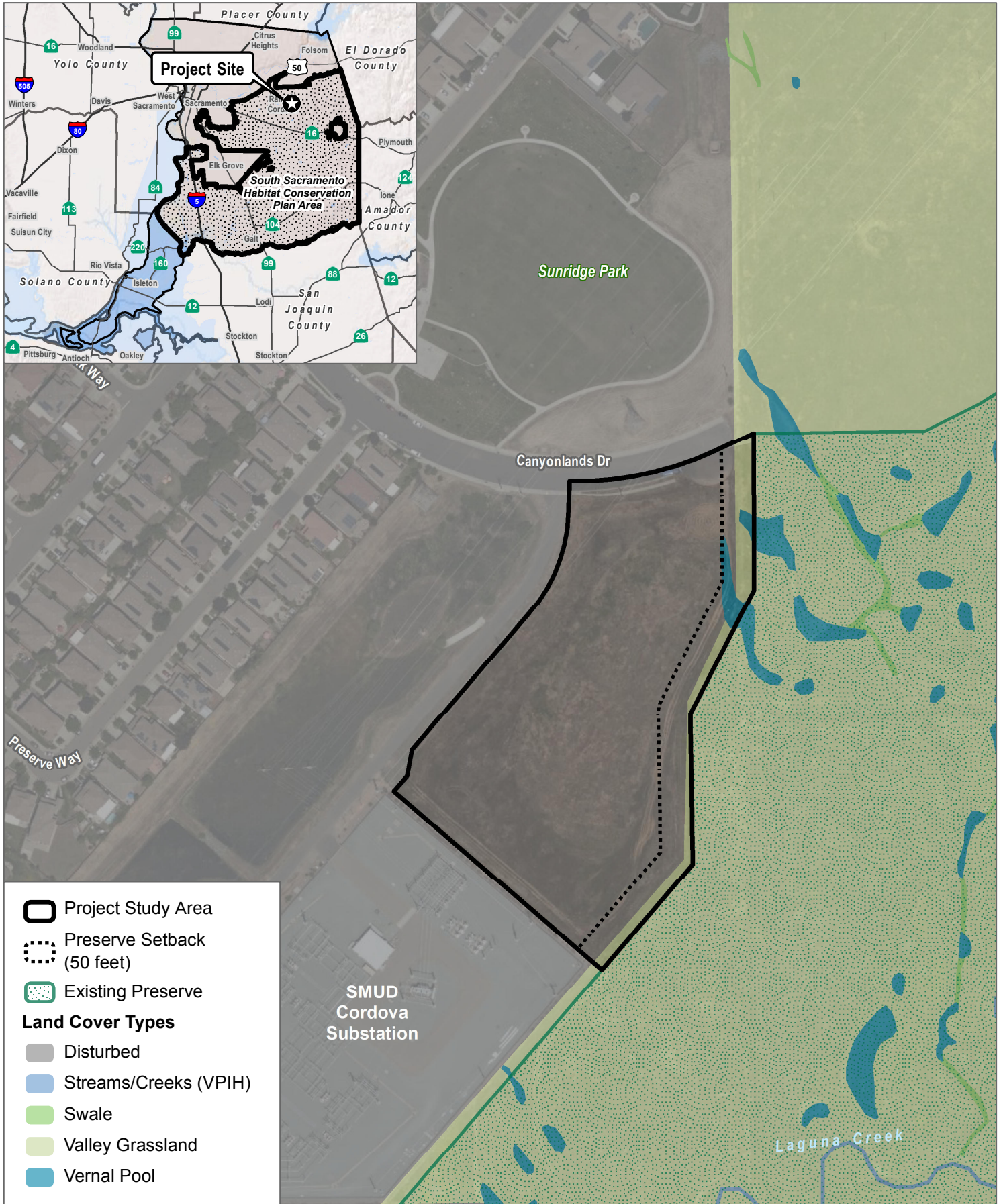
SOURCE: Bing imagery 2021; Open Street Maps 2019; USDA SSURGO 2009

FIGURE 3

Soils



SOURCE: Bing Imagery 2021, USFWS 2019, USGS 2019



SOURCE: Bing Imagery 2021; County of Sacramento 2015

FIGURE 5

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

Biological Resources Assessment for the Sunridge Energy Storage Project

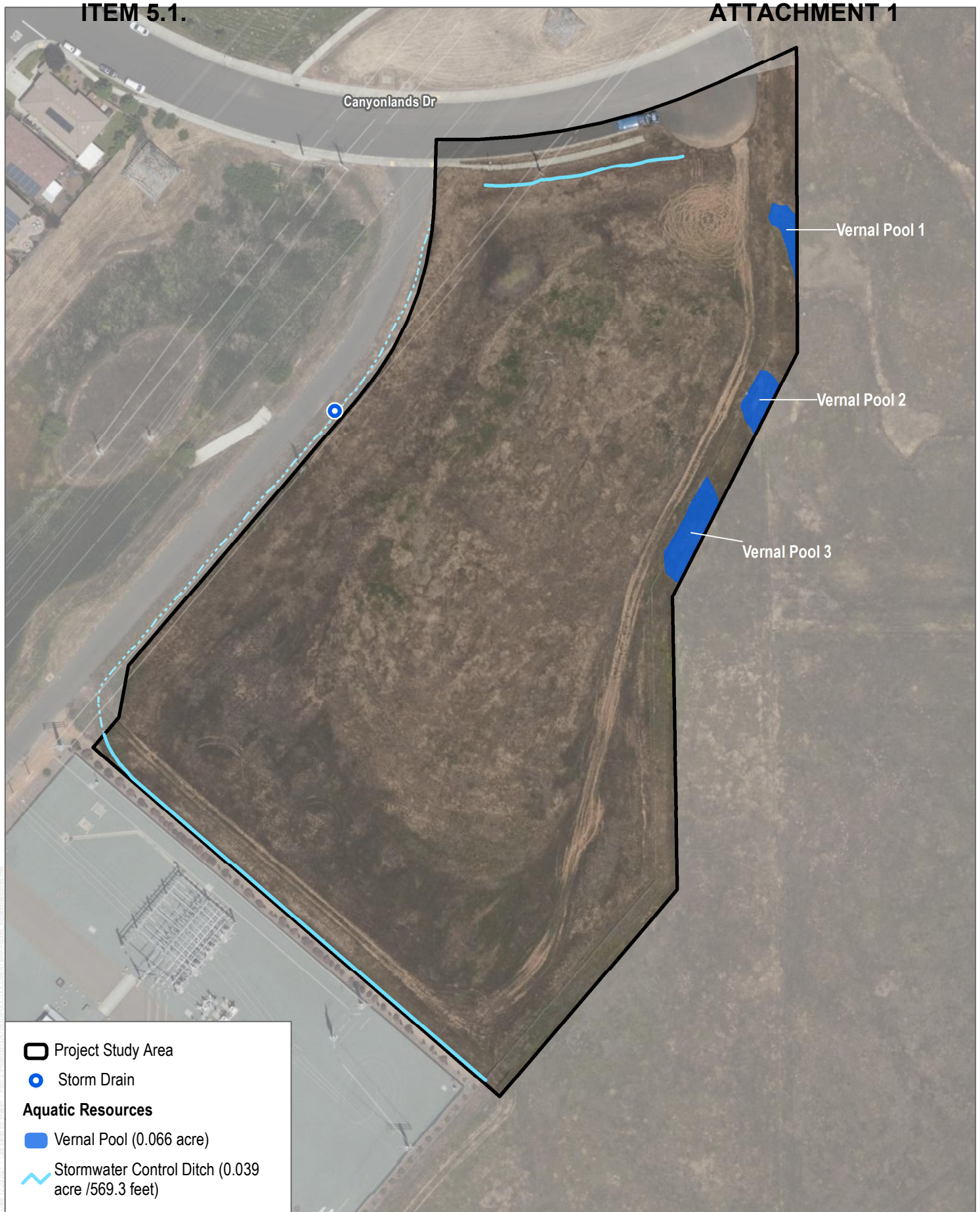


SOURCE: Bing Imagery 2021; Open Street Maps 2019

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

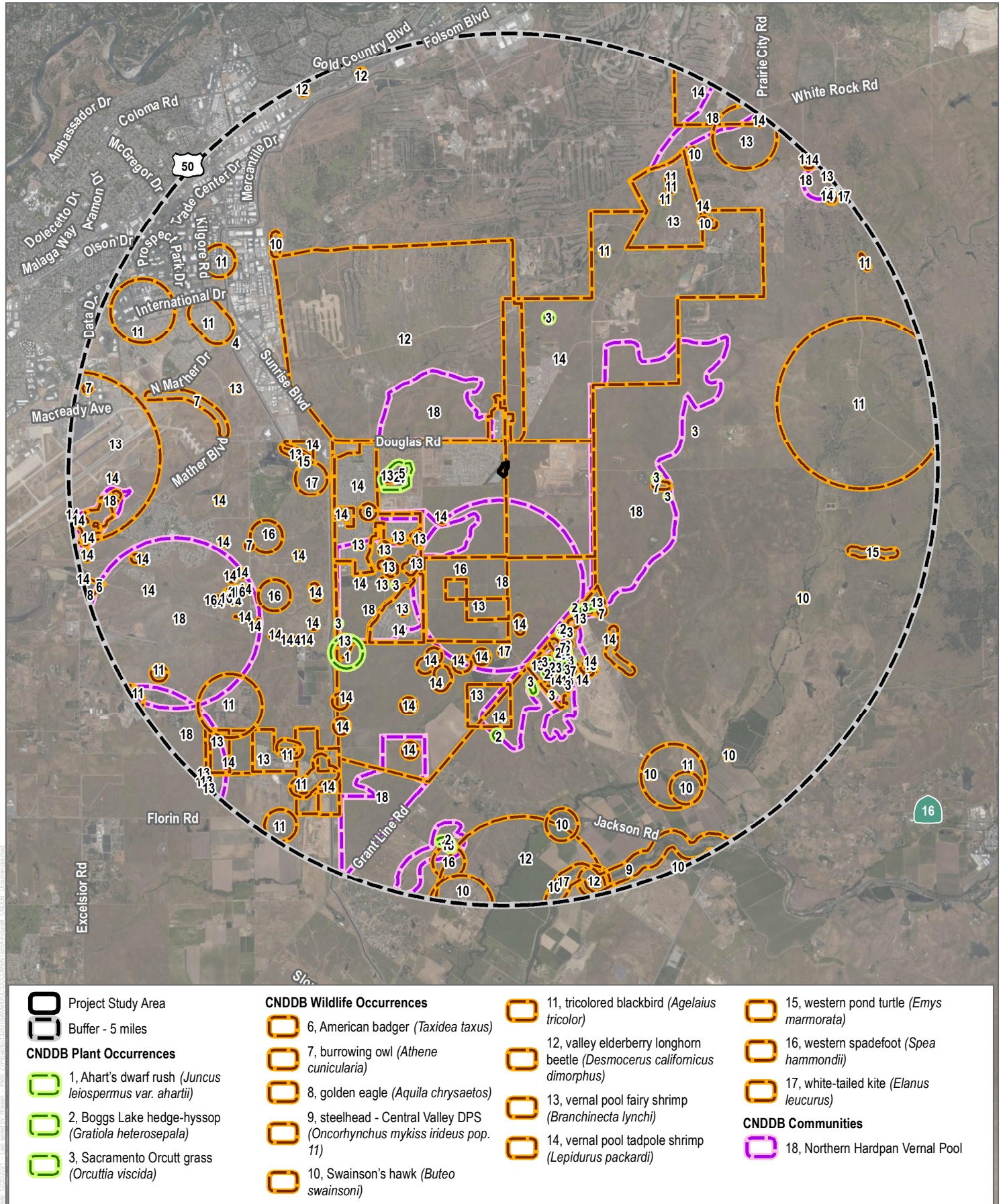


0 50 100 Feet

FIGURE 7

Aquatic Resources Delineation Overview

Biological Resources Assessment for the Sunridge Energy Storage Project



SOURCE: Bing Imagery 2021; CDFW 2021; Open Street Map 2019

FIGURE 8

CNDDDB Occurrences

Biological Resources Assessment for the Sunridge Energy Storage Project

APPENDIX 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.

APPENDIX B / PHOTO RECORD



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.

APPENDIX B / PHOTO RECORD



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.

APPENDIX B / PHOTO RECORD



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



ITEM 5.1.

Selected Elements by Scientific Name

ATTACHMENT 1

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
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<i>Ambystoma californiense</i> pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Andrena subapasta</i> An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos myrtifolia</i> lone manzanita	PDERI04240	Threatened	None	G1	S1	1B.2
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesoatlantica</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2



ITEM 5.1.

Selected Elements by Scientific Name

ATTACHMENT 1

California Department of Fish and Wildlife
California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eriogonum apricum var. apricum</i> Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
<i>Eriogonum apricum var. prostratum</i> Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	PDAP10Z0P0	None	None	G2	S2	1B.2
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<i>Galium californicum ssp. sierrae</i> El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
<i>Gratiola heterosepala</i> 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	
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Ione Chaparral</i> Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	



ITEM 5.1.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

ATTACHMENT 1



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Navarretia myersii</i> ssp. <i>myersii</i> pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Northern Volcanic Mud Flow Vernal Pool</i> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Orcuttia tenuis</i> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<i>Orcuttia viscida</i> Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
<i>Packera layneae</i> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	



ITEM 5.1.

Selected Elements by Scientific Name California Department of Fish and Wildlife California Natural Diversity Database

ATTACHMENT 1



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 63

ITEM 5.1.

Inventory of Rare and Endangered Plants of California

ATTACHMENT 1



CALIFORNIA
NATIVE PLANT SOCIETY

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
<i>Arctostaphylos myrtifolia</i>	lone manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	No Photo Available
<i>Brodiaea rosea ssp. vallicola</i>	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	No Photo Available
<i>Calandrinia breweri</i>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2	No Photo Available
<i>Ceanothus roderickii</i>	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	No Photo Available
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	G3	S3	1B.2	No Photo Available
<i>Clarkia biloba ssp. brandegeae</i>	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	None	None	G4G5T4	S4	4.2	No Photo Available
<i>Crocanthemum suffrutescens</i>	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	No Photo Available
<i>Downingia pusilla</i>	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
<i>Eriogonum apricum</i> var. <i>apricum</i>	lone buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	No Photo Available
<i>Eriogonum apricum</i> var. <i>prostratum</i>	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	No Photo Available
<i>Eriophyllum jepsonii</i>	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	No Photo Available
<i>Eryngium pinnatisectum</i>	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	No Photo Available
<i>Fremontodendron decumbens</i>	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	No Photo Available

<u><i>Eritrandra agrestis</i></u>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
<u><i>Galium californicum</i></u> <u>ssp. <i>sierrae</i></u>	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	No Photo Available
<u><i>Gratiola</i></u> <u><i>heterosepala</i></u>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2	 ©2004 Carol W. Witham
<u><i>Hesperervax</i></u> <u><i>caulescens</i></u>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
<u><i>Horkelia parryi</i></u>	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	No Photo Available
<u><i>Iris longipetala</i></u>	coast iris	Iridaceae	perennial rhizomatous herb	Mar- May(Jun)	None	None	G3	S3	4.2	No Photo Available
<u><i>Juncus leiospermus</i></u> <u>var. <i>ahartii</i></u>	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	No Photo Available
<u><i>Legenere limosa</i></u>	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	No Photo Available
<u><i>Navarretia</i></u> <u><i>eriocephala</i></u>	hoary navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4?	S4?	4.3	No Photo Available
<u><i>Navarretia myersii</i></u> <u>ssp. <i>myersii</i></u>	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	No Photo Available
<u><i>Orcuttia tenuis</i></u>	slender Orcutt grass	Poaceae	annual herb	May- Sep(Oct)	FT	CE	G2	S2	1B.1	No Photo Available
<u><i>Orcuttia viscida</i></u>	Sacramento Orcutt grass	Poaceae	annual herb	Apr- Jul(Sep)	FE	CE	G1	S1	1B.1	No Photo Available
<u><i>Packera layneae</i></u>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	No Photo Available
<u><i>Sagittaria sanfordii</i></u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May- Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
<u><i>Wyethia reticulata</i></u>	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:

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](#)

ITEM 5.1.
IPaC

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.

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 species¹ 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 Fisheries²).

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

ITEM 5.1.

NAME

STATUS

Giant Garter Snake *Thamnophis gigas*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4482>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

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>California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

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>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

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>

Crustaceans

ITEM 5.1.**ATTACHMENT 1**

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

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>

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

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>

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

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>

Flowering Plants

NAME

STATUS

Sacramento Orcutt Grass *Orcuttia viscida*

Endangered

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>

Slender Orcutt Grass *Orcuttia tenuis*

Threatened

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>

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

ITEM 5.1.**ATTACHMENT 1**

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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

ITEM 5.1.**ATTACHMENT 1**

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.

ITEM 5.1.**ATTACHMENT 1**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 (I)

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.

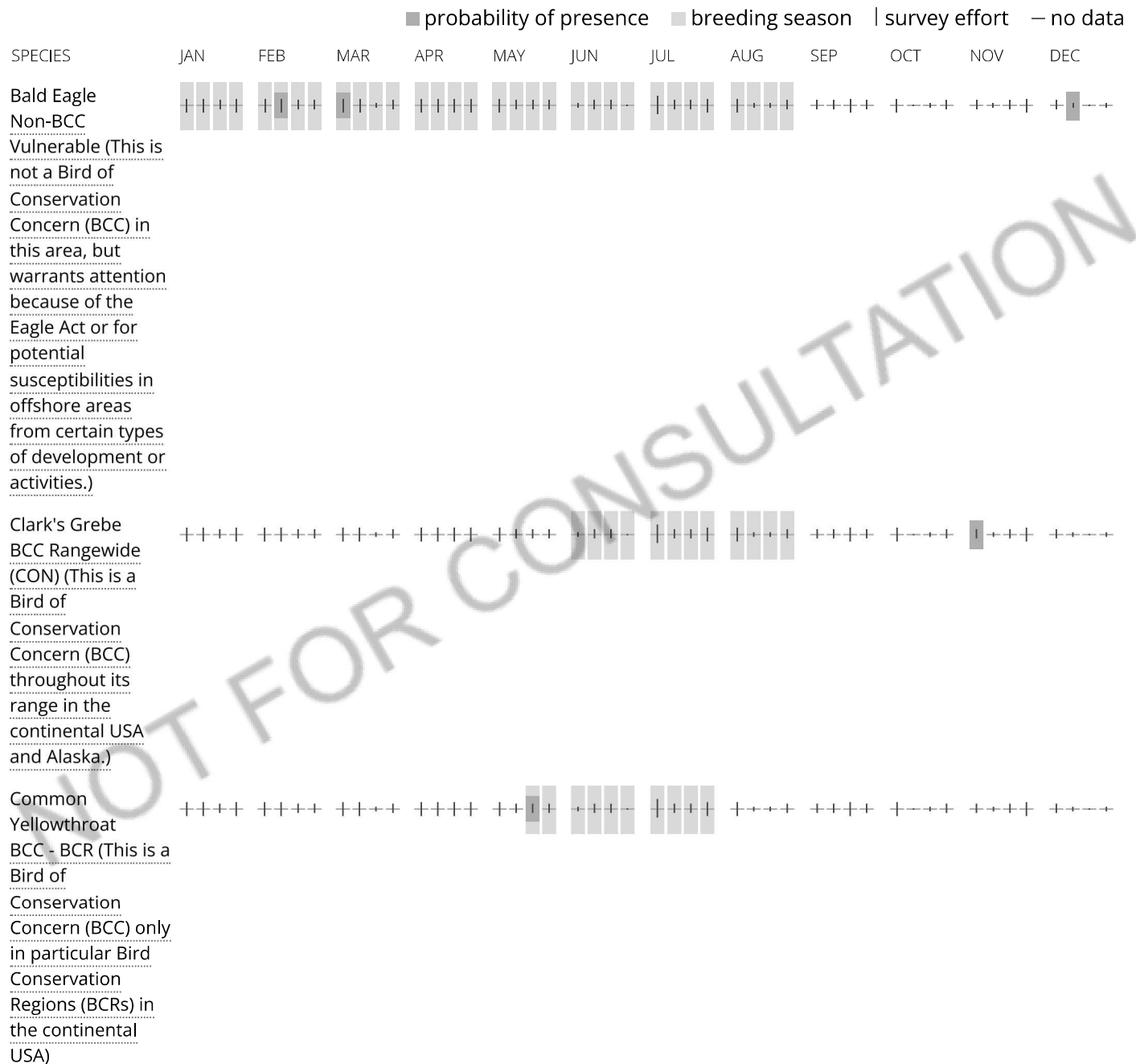
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

ITEM 5.1.**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.



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[illegible][illegible][illegible]

ITEM 5.1.

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.)



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

ITEM 5.1.**ATTACHMENT 1**

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.

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.

ITEM 5.1.
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 tubercid 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.



National Wetlands Inventory
surface waters and wetlands

ABOUT

GET DATA

PRINT

FIND LOCATION

BASEMAPS >



Measure

MAP LAYERS >

- ☒ Wetlands
- ☒ Riparian
- ☐ Riparian Mapping Areas
- ☒ Data Source
 - Source Type
 - Image Scale
 - Image Year
- ☐ Areas of Interest
- ☐ FWS Managed Lands
- ☐ Historic Wetland Data

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

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				
<i>Arctostaphylos myrtifolia</i>	lone manzanita	FT/None/1B.2	Chaparral, Cismontane woodland; acidic, lone soil, clay or sandy/perennial evergreen shrub/Nov–Mar/197–1,900	Not expected to occur. No suitable vegetation present.
<i>Ceanothus roderickii</i>	Pine Hill ceanothus	FE/SR/1B.1	Chaparral, Cismontane woodland; Serpentine 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.
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentine, 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.
<i>Downingia pusilla</i>	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 CNDDDB occurrence is in Phoenix Park approximately 6 miles north of the Project Study Area (PSA) from 1976 (CDFW 2021).
<i>Eriogonum apicum</i> var. <i>apicum</i>	lone buckwheat	FE/SE/1B.1	Chaparral (openings, lone soil)/perennial herb/July–Oct/197–475	Not expected to occur. No suitable vegetation present.
<i>Eriogonum apicum</i> var. <i>prostratum</i>	Irish Hill buckwheat	FE/SE/1B.1	Chaparral (openings, lone soil)/perennial herb/June–July/295–395	Not expected to occur. No suitable vegetation present.
<i>Eryngium pinnatisectum</i>	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 CNDDDB 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).
<i>Fremontodendron decumbens</i>	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.
<i>Galium californicum</i> ssp. <i>sierrae</i>	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.
<i>Gratiola heterosepala</i>	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).
<i>Horkelia parryi</i>	Parry's horkelia	None/None/1B.2	Chaparral, Cismontane woodland; lone formation and other soils/perennial herb/Apr–Sep/262–3,510	Not expected to occur. No suitable vegetation or soils present.
<i>Juncus leiospermus</i> var. <i>ahartii</i>	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).
<i>Legenere limosa</i>	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
<i>Navarretia myersii</i> ssp. <i>myersii</i>	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 CNDDDB occurrence is in Phoenix Park approximately 7 miles north of the PSA from 2016 (CDFW 2021).
<i>Orcuttia tenuis</i>	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 CNDDDB occurrence is in the Montelena Wetland Preserve approximately 1 mile west of the PSA from 2012 (CDFW 2021).
<i>Orcuttia viscida</i>	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 CNDDDB occurrence is in a vernal pool complex approximately 1.7 miles west of the PSA from 2010 (CDFW 2021).
<i>Packera layneae</i>	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.
<i>Sagittaria sanfordii</i>	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.
<i>Wyethia reticulata</i>	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				
<i>Ambystoma californiense</i> 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.
<i>Rana boylei</i>	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.
<i>Rana draytonii</i>	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.
<i>Spea hammondi</i>	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 CNDDDB 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				
<i>Emys marmorata</i>	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
<i>Thamnophis gigas</i>	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				
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	None/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; 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 CNDDDB record is a nesting colony located in a blackberry patch approximately 2.5 miles north of the PSA from 2012 (CDFW 2021).
<i>Ammodramus savannarum</i> (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 CNDDDB 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).
<i>Aquila chrysaetos</i> (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 CNDDDB 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
<i>Athene cunicularia</i> (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 CNDDDB occurrence is located in rolling grassland habitat with vernal pool approximately 1.7 miles east of the PSA from 1989 (CDFW 2021).
<i>Buteo swainsoni</i> (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 CNDDDB occurrence is located approximately 3.5 miles to the northwest from 2007 (CDFW 2021).
<i>Elanus leucurus</i> (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 CNDDDB occurrence is located approximately 2 miles to the west from 1990 (CDFW 2021).
<i>Haliaeetus leucocephalus</i> (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.
<i>Laterallus jamaicensis coturniculus</i>	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	
<i>Riparia riparia</i> (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				
<i>Hypomesus transpacificus</i>	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.
<i>Oncorhynchus mykiss irideus</i> 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				
<i>Antrozous pallidus</i>	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).
<i>Taxidea taxus</i>	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				
<i>Branchinecta conservatio</i>	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.
<i>Branchinecta lynchi</i>	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).
<i>Danaus plexippus</i> pop. 1	monarch	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. No suitable habitat present.
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>)	Not expected to occur. No elderberry shrubs present during the December 2021 survey.
<i>Lepidurus packardii</i>	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: Federally 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

May 9, 2023

Parker Hills
Vesper Energy
125 E. John Carpenter Fwy, Ste 525
Irving, Texas 75062

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

Dear Mr. Hills:

This letter report documents the cultural resources study conducted by Dudek for the proposed Juniper Creek 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).

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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 also entails improvements to the existing SMUD Cordova Substation to interconnect and accommodate the Project. The improvements will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding an additional circuit breaker and disconnect switch. Specific upgrades will be finalized through the ongoing interconnection process with SMUD. The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation.

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.

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- (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

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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)).

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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.

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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
<i>Reports within the Project Site</i>			

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Table 1.
Previous Technical Studies

Report Number	Date	Title	Author
005850	2004	Determination of Eligibility and Effect for the Sunridge Park Project Area	Peak, Melinda A.
<i>Reports within ½-mile of the Project Site</i>			
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 Sunridge Park Project Area.	Peak, Melinda A.
005844	2004	Determination of Eligibility and Effect for the Douglas Road 98 Project Area	Peak, Melinda A.
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 FACILITY (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

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

Table 1.
Previous Technical Studies

Report Number	Date	Title	Author
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
<i>Resources within the Project Site</i>					
None					
<i>Resources within the 1/2-Mile Search Site</i>					
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

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

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.

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California



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 Sierra 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.

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

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.

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

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/>.

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

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 Historic Preservation.

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: May 2023

Report Title: Cultural Resources Letter Report for the Juniper Creek 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

Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California

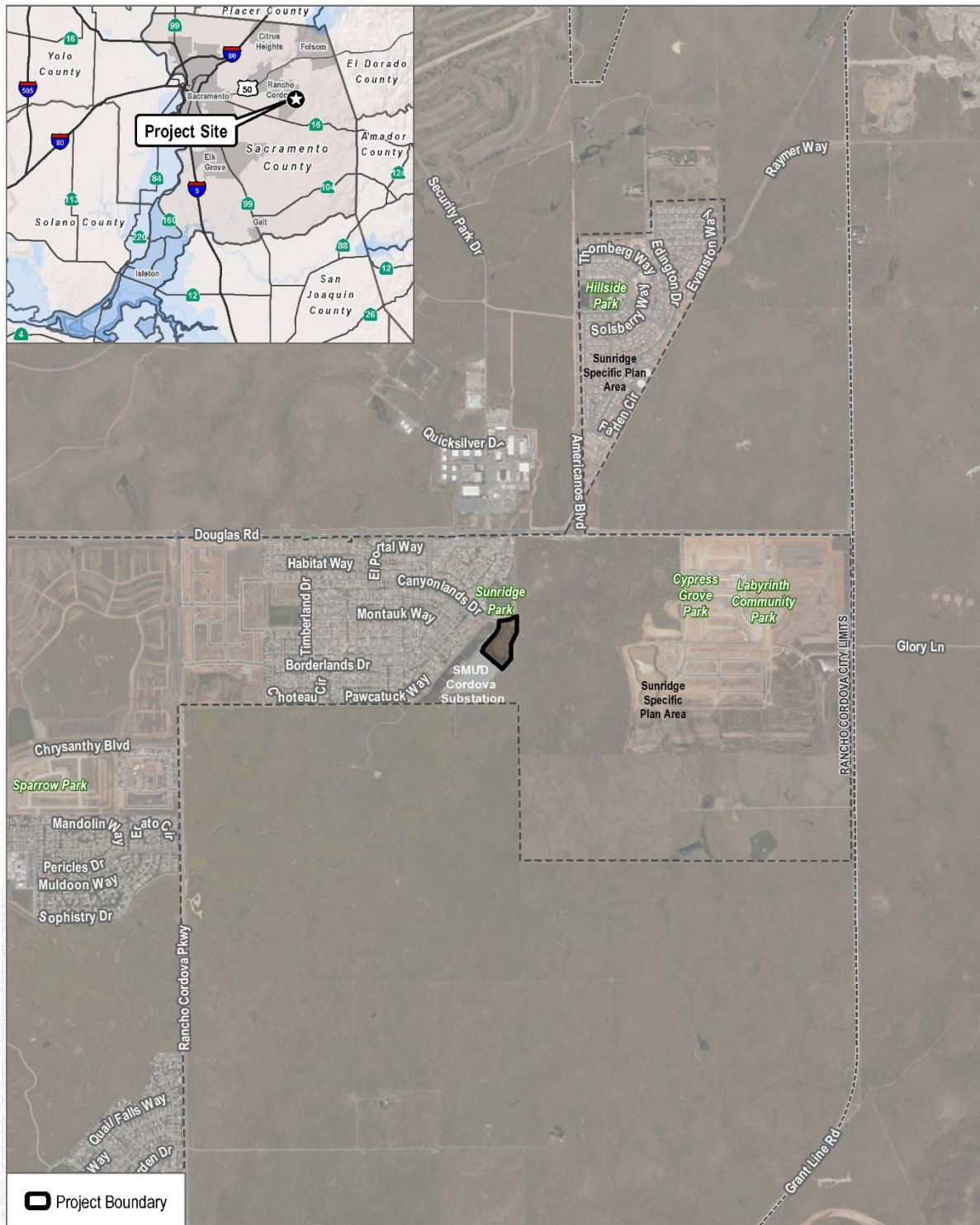


FIGURE 1

Project Location

Habitat Evaluation Report for the Sunridge Energy Storage Project

*Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of
Rancho Cordova, Sacramento County, California*

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Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of Rancho Cordova, Sacramento County, California



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

*Subject: Cultural Resources Letter Report for the Juniper Creek Energy Storage Project, City of
Rancho Cordova, Sacramento County, California*

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APPENDIX A
CONFIDENTIAL
NCIC Records Search Results

APPENDIX B

NAHC SLF Search



STATE OF CALIFORNIA

Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

February 23, 2022

Nicholas Hanten
DudekVia Email to: nhanten@dudek.comCHAIRPERSON
Laura Miranda
LuiseñoVICE CHAIRPERSON
Reginald Pagaling
ChumashPARLIAMENTARIAN
Russell Attebery
KarukSECRETARY
Sara Dutschke
MiwokCOMMISSIONER
William Mungary
Paiute/White Mountain
ApacheCOMMISSIONER
Isaac Bojorquez
Ohlone-CostanoanCOMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
NomlakiCOMMISSIONER
Wayne Nelson
LuiseñoCOMMISSIONER
Stanley Rodriguez
KumeyaayEXECUTIVE 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**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:

ITEM 5.1.

ATTACHMENT 1

- 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

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
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tsi-akim-maidu@att.net

United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairperson
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Auburn, CA, 95603 Miwok
Phone: (530) 883 - 2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

Wilton Rancheria

Jesus Tarango, Chairperson
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Wilton Rancheria

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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.

ITEM 5.1.

Native American Heritage Commission **ATTACHMENT 1**
Tribal Consultation List
Sacramento County
2/16/2022

**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

ITEM 5.1.



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

ATTACHMENT 1



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).



HISTORICAL AERIAL IMAGES SUMMARY

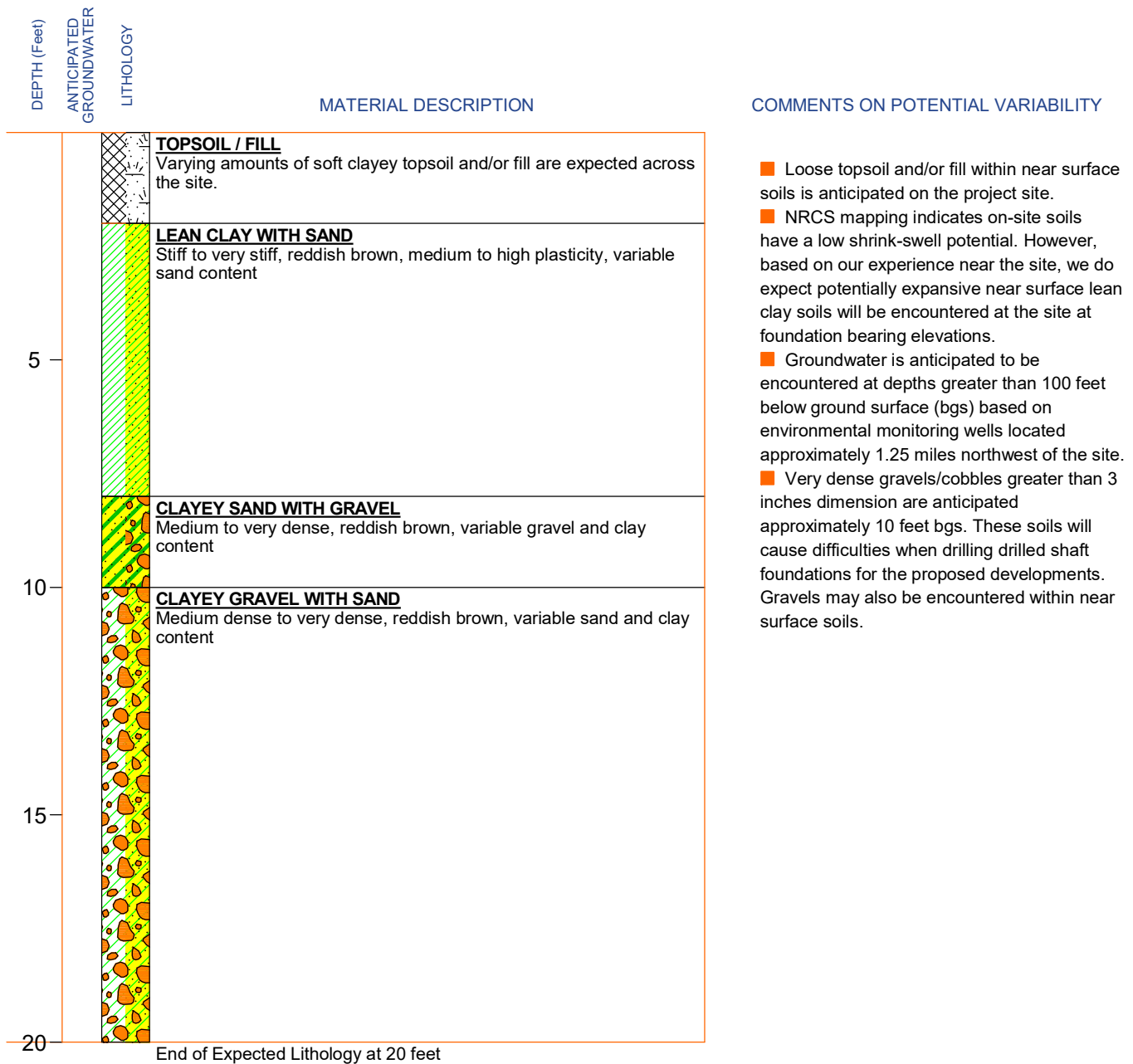
LOCATION	DESCRIPTION
Site	1993 – 2002: The site appears to be vacant land. 2003: An unimproved road or other linear feature is visible at the east edge of the northeast portion of the site. 2004: Various unimproved roads appear to intersect the site. 2005: Grading/development appears to have been started 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



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
Beau.Donaldson@terracon.com



Frederick Maurer Jr., P.E.
Senior Geotechnical Engineer
Fred.MaurerJr@terracon.com

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



Soil Survey Geographic U.S. Database



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 POOPENAUT COURT, RANCHO CORDOVA, SACRAMENTO COUNTY, CALIFORNIA

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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 IRC TS 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 IRC TS 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 oversight, 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 Fiddymont loam. Redding loam is moderately well drained, gravelly loam with more than 35 percent silt-clay material. Fiddymont 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 Aerojet 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 oversight, 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 purposes.
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 road appears 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 oversight, 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 oversight, 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).

California Department of Toxic Substances Control (DTSC). 2021. EnviroStor Database. <https://www.envirostor.dtsc.ca.gov/public/>. Accessed 24 May.

California Environmental Protection Agency (CalEPA). 2021. <https://siteportal.calepa.ca.gov/nsite/map/help>. Accessed 24 May.

California State Water Resources Control Board. 2021. GeoTracker Database. <https://geotracker.waterboards.ca.gov/>. Accessed 24 May.

EA Engineering, Science, and Technology, Inc., PBC (EA). 2021. Site reconnaissance by Fatima Burhan of EA. 15 June.

Environmental Data Resources, Inc. (EDR). 2021. 4151 Poopenaut CT Address of Adjacent Switchyard Rancho Cordova, CA 95742. Database Report, Certified Sanborn Maps, Historic Topographic Maps, City Directory Image Search, Environmental Lien and AUL Search, Property Tax Map Report, and Building Report. Inquiry number: 6532774.5. 6 May.

Montgomery & Associates. 2021. Groundwater Monitoring Report for 2020 Inactive Rancho Cordova Test Site. 4 May.

Porter, A. 2021. Major Tenant/Property Owner/User Pre-Survey Questionnaire: Phase I Environmental Site Assessment. 28 June.

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.

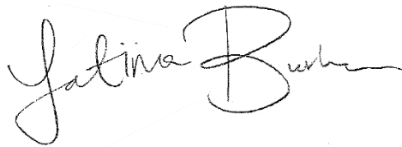
Vail, B. 2021. Major Tenant/Property Owner/User Questionnaire: Phase I Environmental Site Assessment. 28 June.

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
Environmental Professional

Date



7/6/2021

Frank B. Postma, LSP, LEP, PG
Senior Project Manager

Date

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14. QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONALS

Resumes for the following personnel assigned to this project are provided in Appendix G:

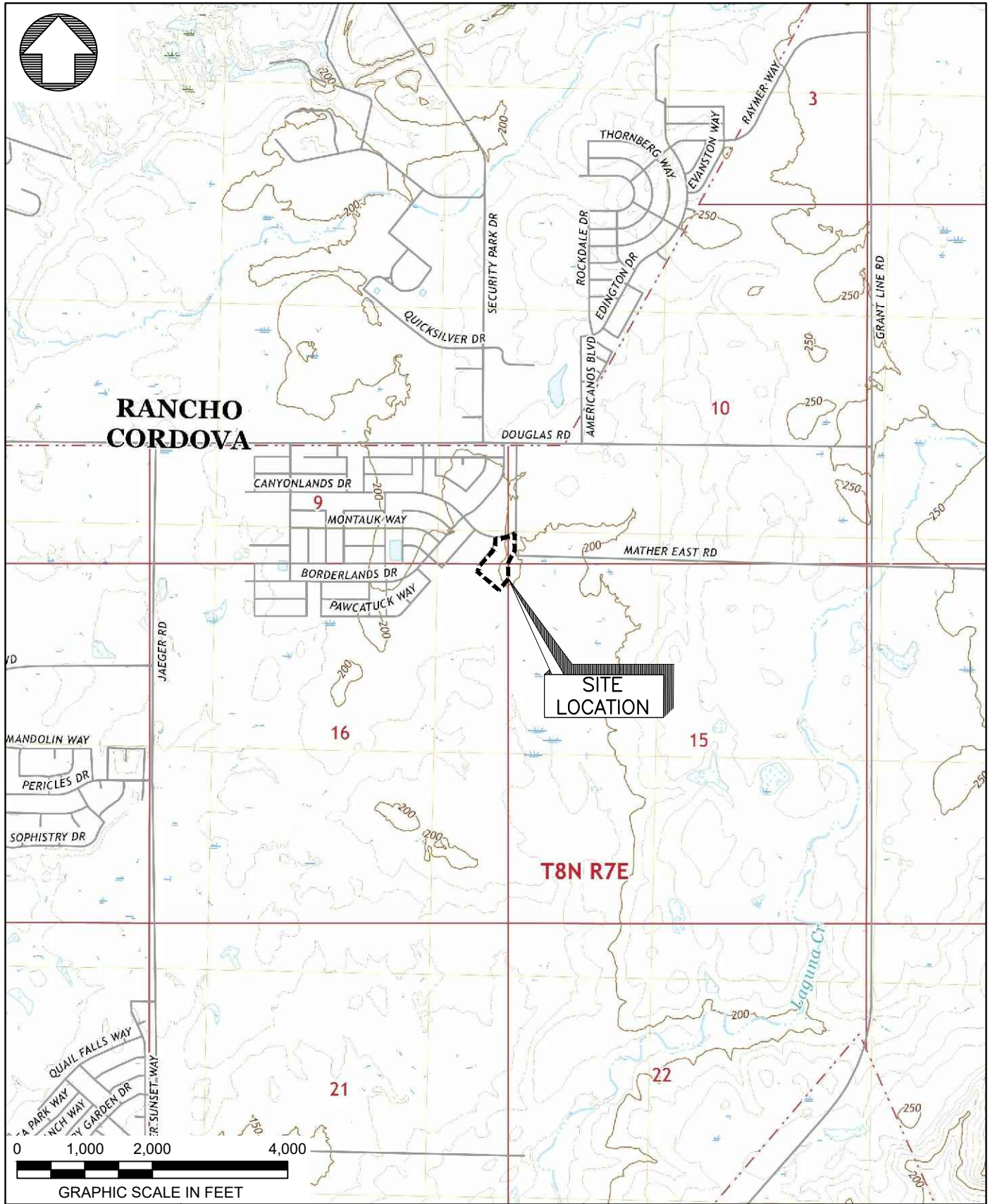
- Frank Postma, Senior Project Manager
- Fatima Burhan, Environmental Scientist.

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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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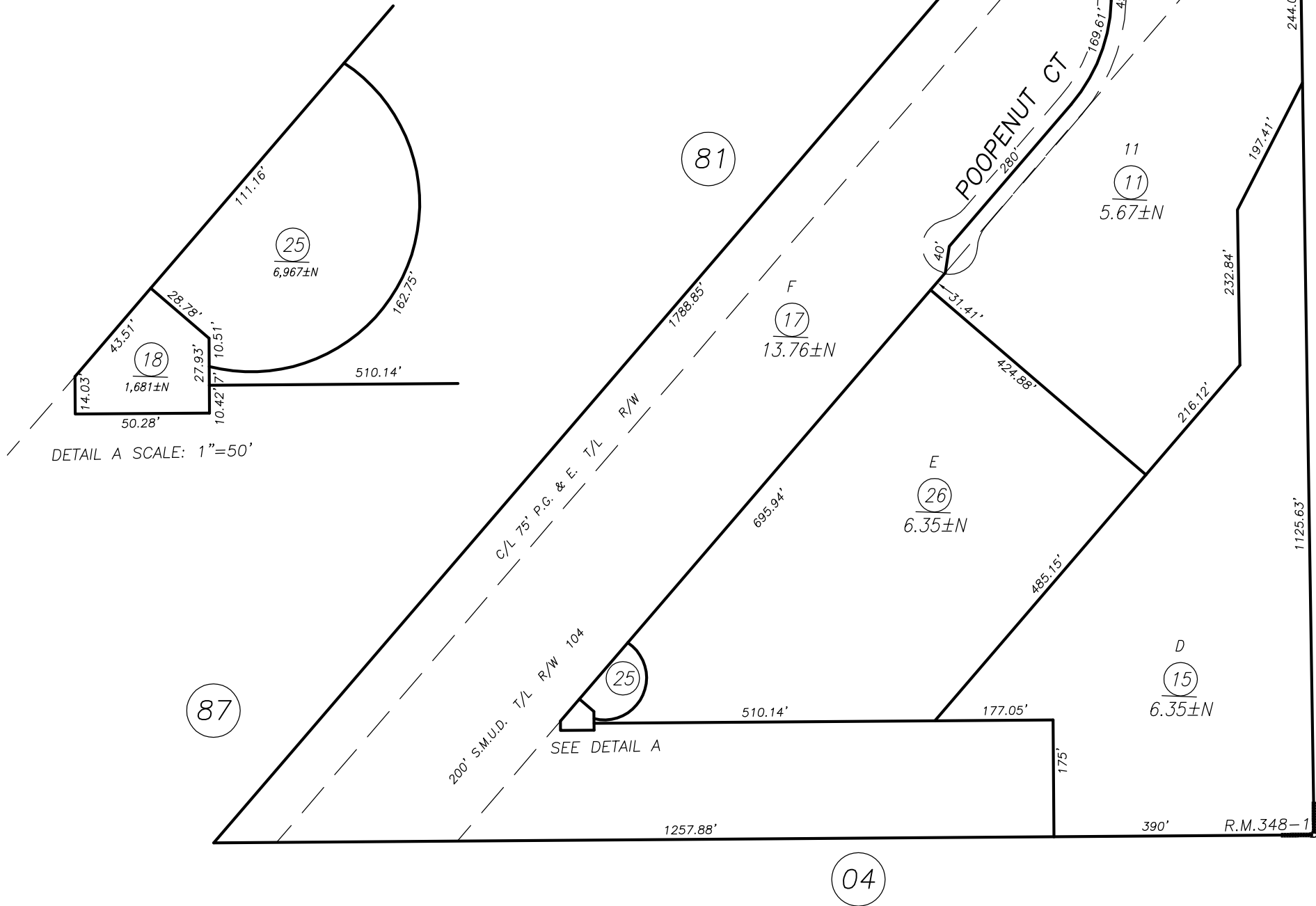
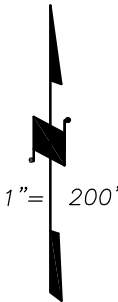
	VESPER ENERGY DEVELOPMENT LLC. SUNRIDGE SOLAR PROJECT POOPENAUT COURT RANCHO CORDOVA, CALIFORNIA	SITE PLAN	PROJECT NUMBER: 6361203	DESIGNED BY: FB	DRAWN BY: DPA	FIGURE: 2-2
			DATE: JULY 2021	CHECKED BY: DP	PROJECT MGR.: FBP	SHEET NUMBER: 1 OF 1

ITEM 5.1.

POR. SEC'S 9 & 16, T.8N., R.7E., M.D.B. & M.

ATTACHMENT 1

067-78



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

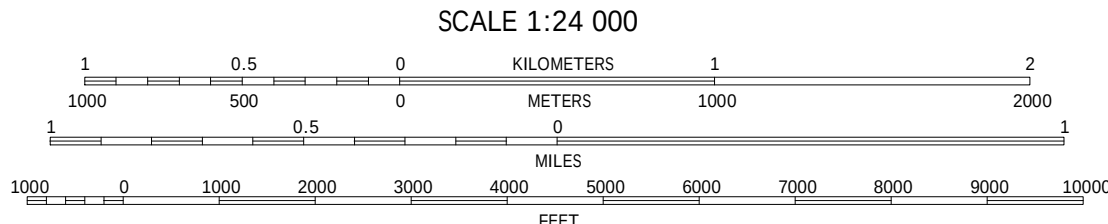
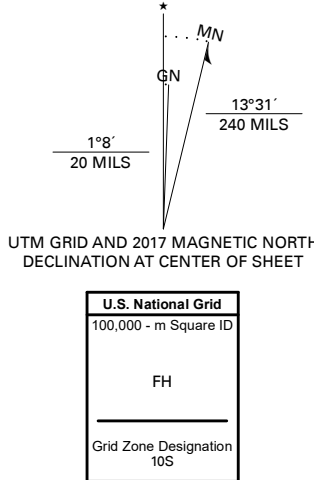


BUFFALO CREEK QUADRANGLE
CALIFORNIA - SACRAMENTO COUNTY
7.5-MINUTE SERIES

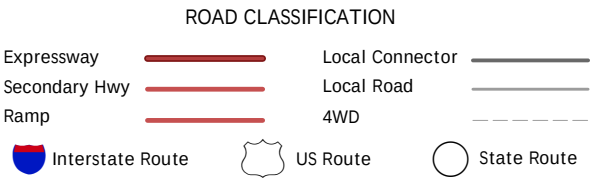
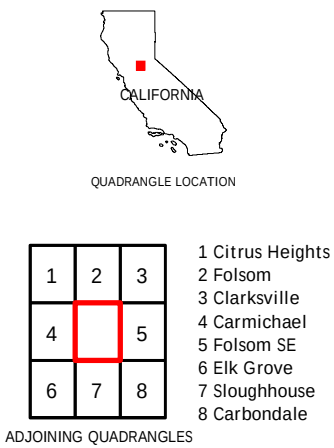


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid/Universal Transverse Mercator, Zone 10S
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within 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



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



BUFFALO CREEK, CA
2018



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Appendix B
User Provided

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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: 6/29/2021

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			

**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**

**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 ☒ 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			

**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 I.

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 personal injuries or

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~~Property Damage 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~~ 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 ("Indemnatee") 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 Indemnatee's written notice of an indemnified event within thirty (30) days after the notice ~~(or such shorter time as the Indemnatee 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's ~~se(s)~~ request made in writing, then the Indemnatee 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 5.13 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

E-mail:

Brian.Sweeney@Aerojet.com

Vice President, Legal
Highway 50 and Aerojet Road
Rancho Cordova, California 95670
Facsimile No.: (916) 351-8610

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 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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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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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-0002847278

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 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 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 PURPOSES 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

O:\SirPkg.doc (4/2002)

RIGHTS RESERVED TO EXPLORE FOR, DEVELOP AND REMOVE SUCH OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS SHALL NOT INTERFERE 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:

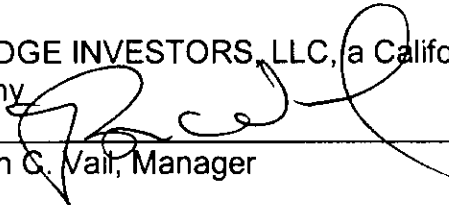
ALL THAT PORTION OF SECTION 16, TOWNSHIP 8 NORTH, RANGE 7 EAST, M.D.B. & M., DESCRIBED AS FOLLOWS:

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 PURPOSES WHATSOEVER, THE RIGHTS RESERVED TO EXPLORE FOR, DEVELOP AND REMOVE SUCH OIL, GAS AND OTHER HYDROCARBON SUBSTANCES, INERT GASES, MINERALS, AND METALS SHALL NOT INTERFERE 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

O:\SlrPkg.doc (4/2002)

STATE OF CALIFORNIA
COUNTY OF

On 2/10/2004 before me, KATI MOIRA REDMOND, NOTARY PUBLIC personally appeared
BRIAN C. VALL

personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal.

Signature: Kati Moira Redmond
Commission Expiration Date: AUGUST 19, 04



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

O:\SfrPkg.doc (4/2002)

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

Thank you for your business.

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

TABLE OF CONTENTS**SECTION****About This Report****Executive Summary****Findings****Glossary**

Thank you for your business.

Please contact EDR at 1-800-352-0050
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 Inquiries (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.



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

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
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		
2001	City of Rancho Cordova, Building and Safety		
2000	City of Rancho Cordova, Building and Safety		
1999	City of Rancho Cordova, Building and Safety		
1998	City of Rancho Cordova, Building and Safety		
1997	City of Rancho Cordova, Building and Safety		
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

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
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

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
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		
2001	Sacramento County, Planning and Community Develop		
2000	Sacramento County, Planning and Community Develop		
1999	Sacramento County, Planning and Community Develop		
1998	Sacramento County, Planning and Community Develop		
1997	Sacramento County, Planning and Community Develop		
1996	Sacramento County, Planning and Community Develop		
1995	Sacramento County, Planning and Community Develop		
1994	Sacramento County, Planning and Community Develop		
1993	Sacramento County, Planning and Community Develop		
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

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>
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").
- **Journeyman:** 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:

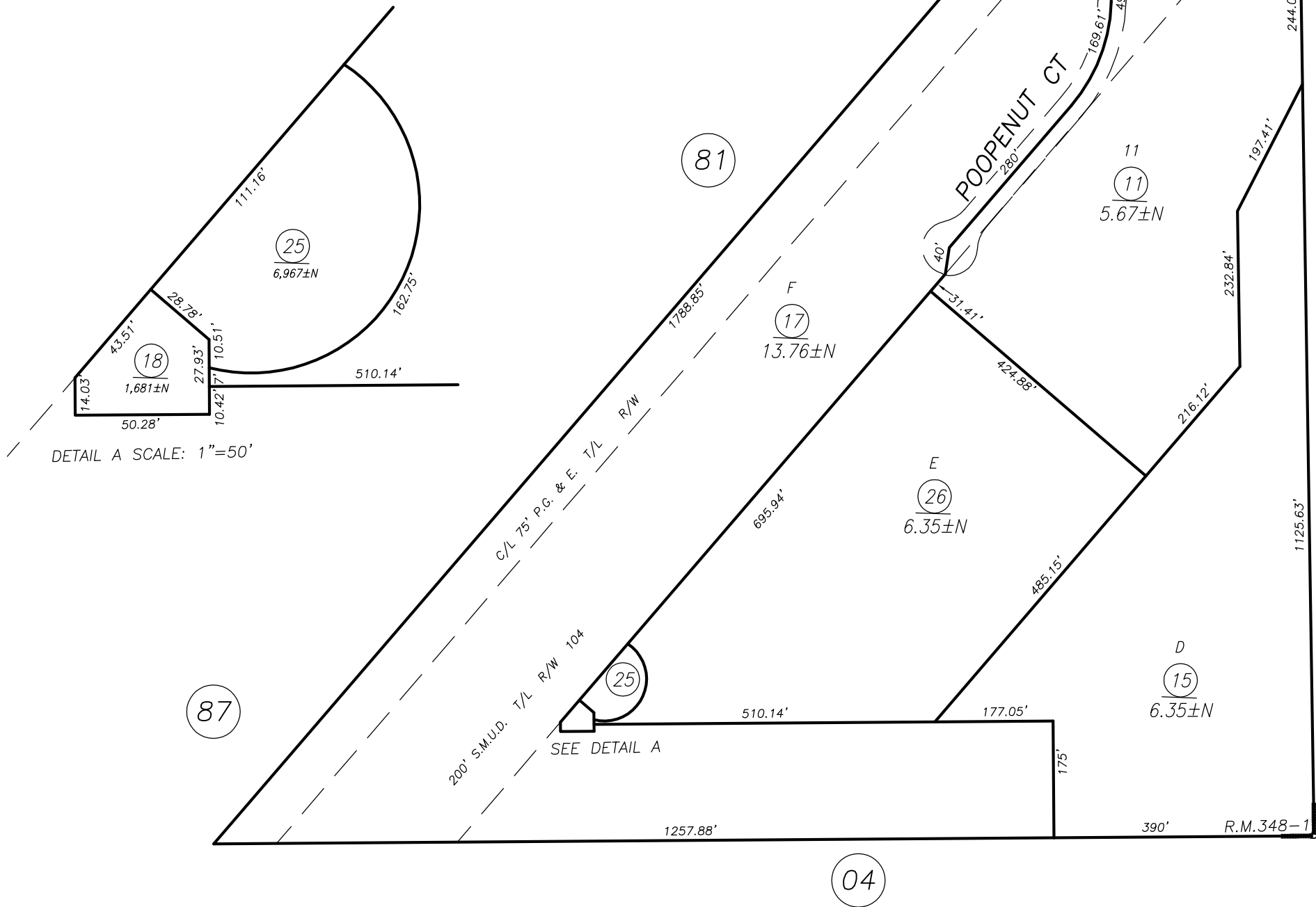
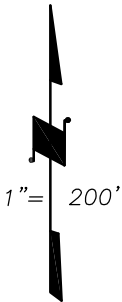
Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

ITEM 5.1.

POR. SEC'S 9 & 16, T.8N., R.7E., M.D.B. & M.

ATTACHMENT 1

067-78



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.



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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](tel: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](tel: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](tel: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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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 Transverse 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

ITEM 5.1.

ATTACHMENT 1

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 Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
 SWRCY..... Recycler Database
 HAULERS..... Registered Waste Tire Haulers Listing
 INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
 ODI..... Open Dump Inventory
 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

EXECUTIVE SUMMARY

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

EXECUTIVE SUMMARY

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>GENERAL ELECTRIC MED</i> Site ID: 0903397 EPA Id: CAD000819680	<i>3920 SECURITY PARK D</i>	<i>N 1/4 - 1/2 (0.376 mi.)</i>	<i>B5</i>	<i>13</i>

EXECUTIVE SUMMARY

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
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 identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GENERAL ELECTRIC MED Facility Id: 80001343	3920 SECURITY PARK	N 1/4 - 1/2 (0.376 mi.)	B7	44

EXECUTIVE SUMMARY

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AZTECA CONSTRUCTION, 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	3871 SECURITY PARK D	N 1/4 - 1/2 (0.491 mi.)	9	46

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
INACTIVE RANCHO CORD Database: CPS-SLIC, Date of Government Version: 03/08/2021 Facility Status: Open - Remediation Global Id: T10000003681	DOUGLAS ROAD	N 1/4 - 1/2 (0.362 mi.)	4	12
INACTIVE RANCHO CORD Database: CPS-SLIC, Date of Government Version: 03/08/2021 Facility Status: Open - Remediation Global Id: T10000002985	DOUGLAS ROAD	NNW 1/4 - 1/2 (0.380 mi.)	8	45

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AZTECA CONSTRUCTION, Facility Id: RO0001055 Date Closed: 02/24/1997	3871 SECURITY PARK D	N 1/4 - 1/2 (0.491 mi.)	9	46

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AZTECA CONSTRUCTION, Cleanup Status: COMPLETED - CASE CLOSED	3871 SECURITY PARK D	N 1/4 - 1/2 (0.491 mi.)	9	46

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AZTECA CONSTRUCTION, Reg Id: 340527	3871 SECURITY PARK D	N 1/4 - 1/2 (0.491 mi.)	9	46

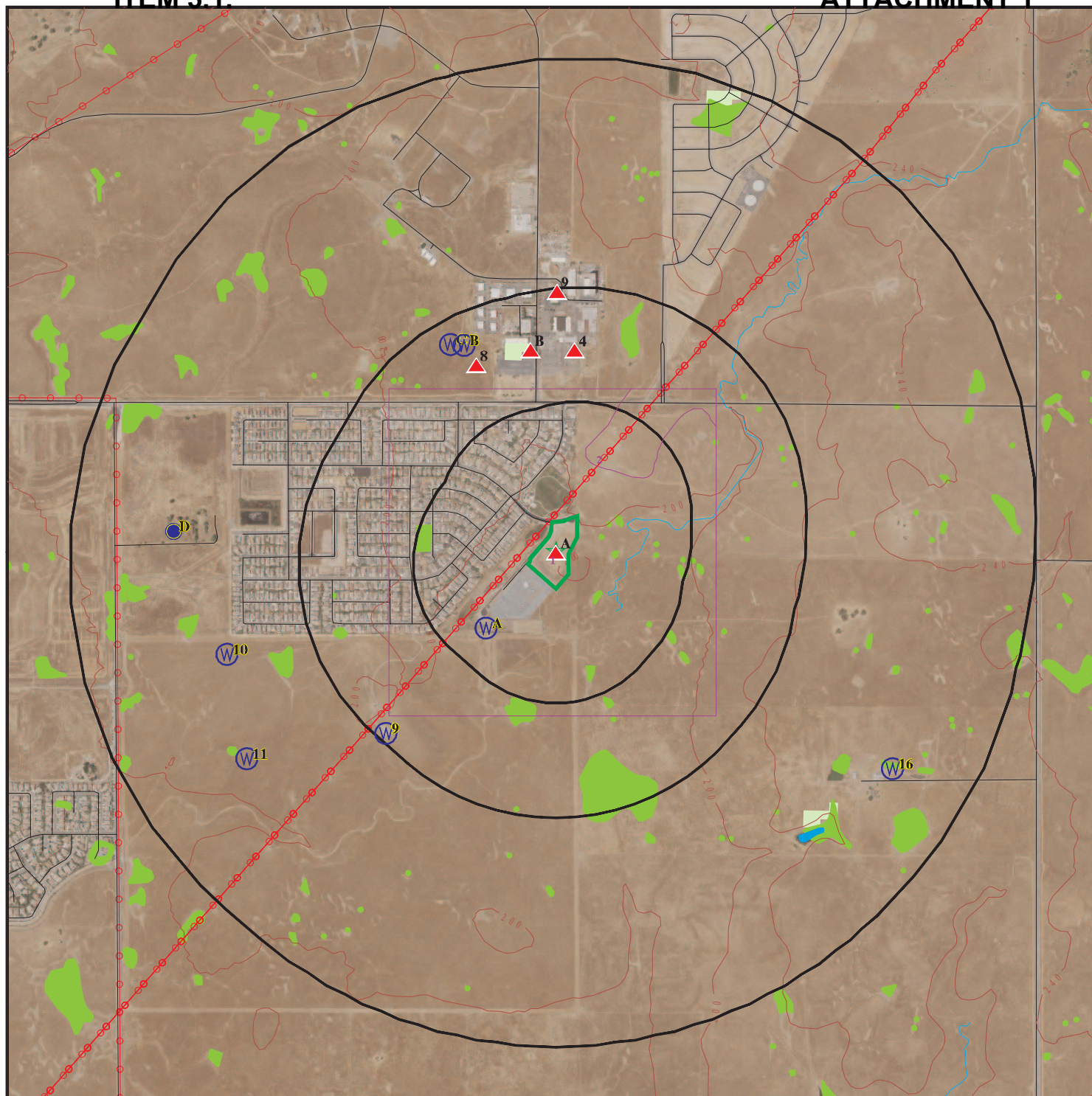
HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

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.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GENERAL ELECTRIC MED EPA ID: CAD000819680 Cleanup Status: CLOSED	3920 SECURITY PARK	N 1/4 - 1/2 (0.376 mi.)	B6	38

EXECUTIVE SUMMARY

There were no unmapped sites in this report.



Target Property



Sites at elevations higher than or equal to the target property



Sites at elevations lower than the target property



Manufactured Gas Plants



National Priority List Sites



Dept. Defense Sites



Indian Reservations BIA



Power transmission lines



Special Flood Hazard Area (1%)



0.2% Annual Chance Flood Hazard



National Wetland Inventory

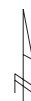


State Wetlands



Areas of Concern

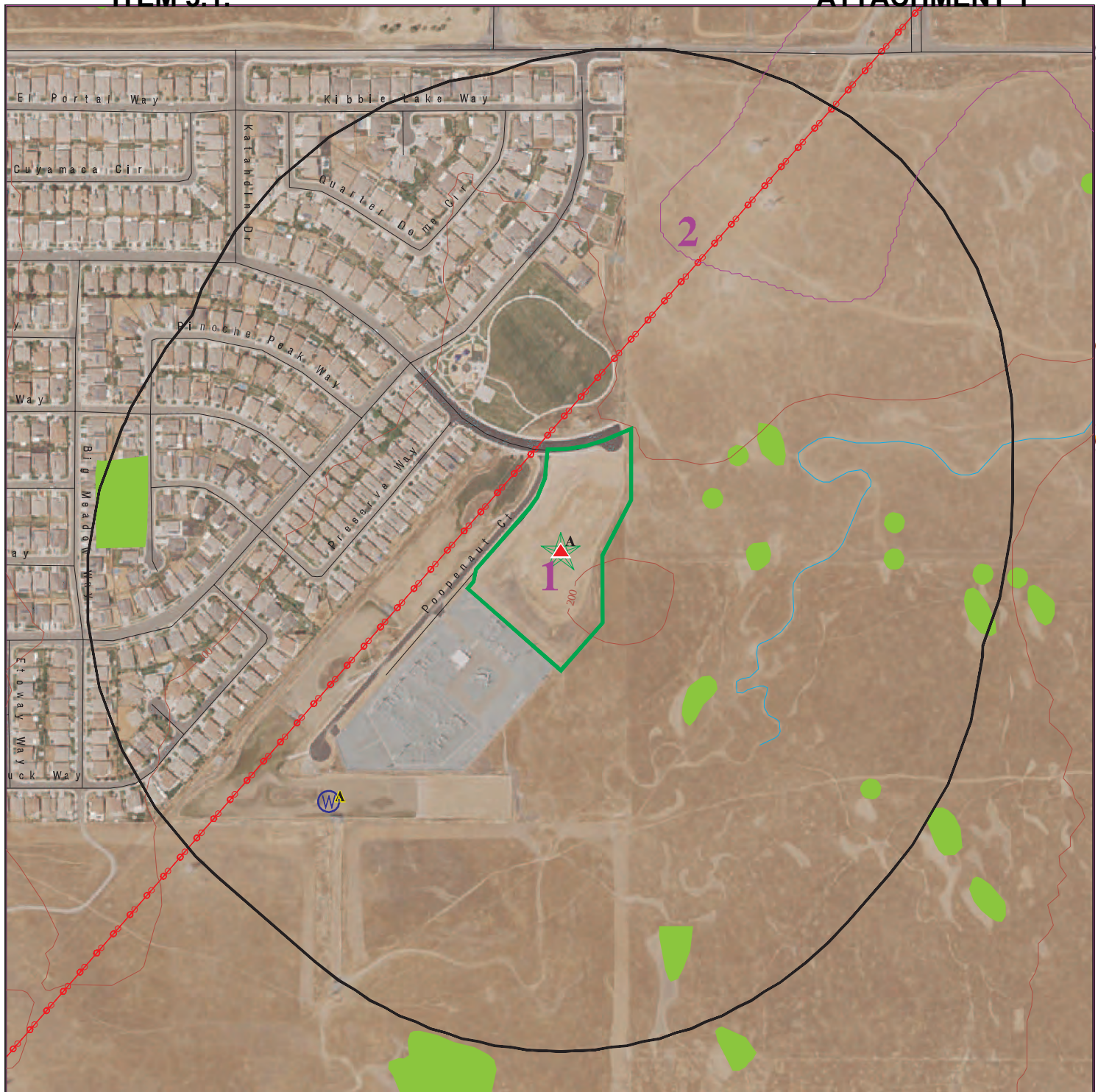
0 1/4 1/2 1 Miles



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
 ADDRESS: 4151 Poopenaut CT Address of Adjacent Switchyard
 Rancho Cordova CA 95742
 LAT/LONG: 38.554523 / 121.206557

CLIENT: EA Engineering Science & Tech.
 CONTACT: Denise Pereira
 INQUIRY #: 6532774.2s
 DATE: June 11, 2021 1:48 pm



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

0 1/16 1/8 1/4 Miles

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
 ADDRESS: 4151 Poopenaut CT Address of Adjacent Switchyard
 Rancho Cordova CA 95742
 LAT/LONG: 38.554523 / 121.206557

CLIENT: EA Engineering Science & Tech.
 CONTACT: Denise Pereira
 INQUIRY #: 6532774.2s
 DATE: June 11, 2021 1:50 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	1	NR	NR	1
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	1	0	NR	1
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	1	NR	NR	1
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR	1.000		0	0	1	0	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
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

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

ITEM 5.1.

ATTACHMENT 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 SMUD CORDOVA SUBSTATION
Target 4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS D
Property RANCHO CORDOVA, CA 95742

FINDS 1016874618
N/A

Site 1 of 3 in cluster A

Actual: FINDS:
197 ft. 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
Target 4151 POOPENAUT CT
Property RANCHO CORDOVA, CA 95742

Sacramento Co. ML S118939204
N/A

Site 2 of 3 in cluster A

Actual: Sacramento Co. ML:
197 ft. 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
Target 4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS DR
Property RANCHO CORDOVA, CA 95742

CERS S121747115
N/A

Site 3 of 3 in cluster A

Actual: CERS:
197 ft. Name: SMUD CORDOVA SUBSTATION
Address: 4151 POOPENAUT CT OFF EASTERN END OF CANYONLANDS DR
City,State,Zip: RANCHO CORDOVA, CA 95742
Site ID: 154361

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

ITEM 5.1.

ATTACHMENT 1

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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 **S111760560**
CERS **N/A**

Relative:
Higher

CPS-SLIC:

Actual:
209 ft.

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 system has been implemented and is controlling the downgradient migration of the 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

ITEM 5.1.

ATTACHMENT 1

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

B5
North
1/4-1/2
0.376 mi.
1983 ft.

GENERAL ELECTRIC MEDICAL SYSTEMS
3920 SECURITY PARK DR
RANCHO CORDOVA, CA 95742

Site 1 of 3 in cluster B

Relative:
Higher

Actual:
208 ft.

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

Map ID
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Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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:
Owner/Operator Name:
Legal Status:
Date Became Current:

Operator
GENERAL ELECTRIC CO
Private
Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
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MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
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MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

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

Map ID
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Elevation

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MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

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ATTACHMENT 1

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

ITEM 5.1.

ATTACHMENT 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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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

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202 GPRC 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

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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

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GENERAL ELECTRIC MEDICAL SYSTEMS (Continued)

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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

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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

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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

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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

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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

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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

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GENERAL ELECTRIC MEDICAL SYSTEMS (Continued)

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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

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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

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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

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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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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
North
1/4-1/2
0.376 mi.
1983 ft.

GENERAL ELECTRIC MEDICAL SYSTEMS
3920 SECURITY PARK
RANCHO CORDOVA, CA 95670

Site 2 of 3 in cluster B

HWP **S111865965**
CERS **N/A**

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

Site

MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

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)

ITEM 5.1.

ATTACHMENT 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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
North
1/4-1/2
0.376 mi.
1983 ft.

GENERAL ELECTRIC MEDICAL SYSTEMS
3920 SECURITY PARK
RANCHO CORDOVA, CA 95670
Site 3 of 3 in cluster B

ENVIROSTOR S118757512
N/A

Relative:
Higher

ENVIROSTOR:

Actual:
208 ft.

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

8
NNW
1/4-1/2
0.380 mi.
2007 ft.

INACTIVE RANCHO CORDOVA TEST SITE - INACTIVE RANCH
DOUGLAS ROAD
RANCHO CORDOVA, CA 95670

CPS-SLIC S110819459
N/A

Relative:
Higher

CPS-SLIC:

Name:

INACTIVE RANCHO CORDOVA TEST SITE - INACTIVE RANCHO CORDOVA TEST SITE
- SOUTHERN GROUNDWATER CONTAMINATION

Actual:
203 ft.

Address:

DOUGLAS ROAD

City,State,Zip:

RANCHO CORDOVA, CA 95670

ITEM 5.1.

ATTACHMENT 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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.

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

Relative:
Higher

Actual:
213 ft.

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

ITEM 5.1.

ATTACHMENT 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

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

ITEM 5.1.

Count: 0 records.

ORPHAN SUMMARY

ATTACHMENT 1

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	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: N/A
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 16	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	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: N/A
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 16	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
 Date Data Arrived at EDR: 02/02/1994
 Date Made Active in Reports: 03/30/1994
 Number of Days to Update: 56

Source: EPA
 Telephone: 202-564-4267
 Last EDR Contact: 08/15/2011
 Next Scheduled EDR Contact: 11/28/2011
 Data Release Frequency: No Update Planned

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 known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2021	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: 800-424-9346
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 16	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	Source: EPA
Date Data Arrived at EDR: 03/23/2021	Telephone: 800-424-9346
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 03/23/2021
Number of Days to Update: 57	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 03/23/2021
Number of Days to Update: 57	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 03/23/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/05/2021
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 03/23/2021
Number of Days to Update: 57	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/23/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 03/23/2021
Number of Days to Update: 57	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	Source: Department of the Navy
Date Data Arrived at EDR: 02/11/2021	Telephone: 843-820-7326
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 05/05/2021
Number of Days to Update: 39	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 05/21/2021
Number of Days to Update: 85	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/23/2021	Telephone: 703-603-0695
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 05/21/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/06/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/14/2020

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 identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 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 inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2020	Telephone: 415-972-3372
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA Region 8
Date Data Arrived at EDR: 12/16/2020	Telephone: 303-312-6271
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA Region 7
Date Data Arrived at EDR: 12/22/2020	Telephone: 913-551-7003
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 80	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	Source: EPA Region 4
Date Data Arrived at EDR: 12/18/2020	Telephone: 404-562-8677
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 84	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	Source: EPA Region 1
Date Data Arrived at EDR: 12/16/2020	Telephone: 617-918-1313
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-6597
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 04/23/2021
Number of Days to Update: 84	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	Next Scheduled EDR Contact: 09/20/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
 Date Data Arrived at EDR: 09/07/2004
 Date Made Active in Reports: 10/12/2004
 Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
 Telephone: 530-542-5574
 Last EDR Contact: 08/15/2011
 Next Scheduled EDR Contact: 11/28/2011
 Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
 Date Data Arrived at EDR: 11/29/2004
 Date Made Active in Reports: 01/04/2005
 Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
 Telephone: 760-346-7491
 Last EDR Contact: 08/01/2011
 Next Scheduled EDR Contact: 11/14/2011
 Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
 Date Data Arrived at EDR: 04/03/2008
 Date Made Active in Reports: 04/14/2008
 Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
 Telephone: 951-782-3298
 Last EDR Contact: 09/12/2011
 Next Scheduled EDR Contact: 12/26/2011
 Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
 Date Data Arrived at EDR: 09/11/2007
 Date Made Active in Reports: 09/28/2007
 Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
 Telephone: 858-467-2980
 Last EDR Contact: 08/08/2011
 Next Scheduled EDR Contact: 11/21/2011
 Data Release Frequency: No Update Planned

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-7591
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 04/23/2021
Number of Days to Update: 84	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	Source: EPA, Region 1
Date Data Arrived at EDR: 12/16/2020	Telephone: 617-918-1313
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA Region 9
Date Data Arrived at EDR: 12/16/2020	Telephone: 415-972-3368
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA Region 7
Date Data Arrived at EDR: 12/22/2020	Telephone: 913-551-7003
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 80	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	Source: EPA Region 5
Date Data Arrived at EDR: 12/16/2020	Telephone: 312-886-6136
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 04/23/2021
Number of Days to Update: 86	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	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/22/2021
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/05/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
 Date Data Arrived at EDR: 04/22/2008
 Date Made Active in Reports: 05/19/2008
 Number of Days to Update: 27

Source: EPA, Region 7
 Telephone: 913-551-7365
 Last EDR Contact: 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 Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
 Date Data Arrived at EDR: 04/10/2000
 Date Made Active in Reports: 05/10/2000
 Number of Days to Update: 30

Source: State Water Resources Control Board
 Telephone: 916-227-4448
 Last EDR Contact: 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 Services, Indian Health Service
 Telephone: 301-443-1452
 Last EDR Contact: 04/29/2021
 Next Scheduled EDR Contact: 08/09/2021
 Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites**US HIST CDL: National Clandestine Laboratory Register**

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/1995
 Date Data Arrived at EDR: 08/30/1995
 Date Made Active in Reports: 09/26/1995
 Number of Days to Update: 27

Source: State Water Resources Control Board
 Telephone: 916-227-4364
 Last EDR Contact: 01/26/2009
 Next Scheduled EDR Contact: 04/27/2009
 Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 01/20/2021	Telephone: 916-323-2514
Date Made Active in Reports: 04/08/2021	Last EDR Contact: 04/20/2021
Number of Days to Update: 78	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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	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	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 03/03/2021	Telephone: 916-323-3400
Date Made Active in Reports: 05/20/2021	Last EDR Contact: 05/25/2021
Number of Days to Update: 78	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/03/2021	Telephone: 202-564-6023
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 16	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	Source: DTSC and SWRCB
Date Data Arrived at EDR: 03/03/2021	Telephone: 916-323-3400
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 05/28/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/17/2020	Telephone: 202-366-4555
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 03/24/2021
Number of Days to Update: 85	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	Source: Office of Emergency Services
Date Data Arrived at EDR: 01/20/2021	Telephone: 916-845-8400
Date Made Active in Reports: 04/08/2021	Last EDR Contact: 04/20/2021
Number of Days to Update: 78	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	Source: State Water Quality Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/31/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 22	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/31/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 22	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	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/30/2021
Number of Days to Update: 88	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/07/2021
Number of Days to Update: 73	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	Source: EPA
Date Data Arrived at EDR: 06/17/2020	Telephone: 202-260-5521
Date Made Active in Reports: 09/10/2020	Last EDR Contact: 03/19/2021
Number of Days to Update: 85	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	Source: EPA
Date Data Arrived at EDR: 08/14/2020	Telephone: 202-566-0250
Date Made Active in Reports: 11/04/2020	Last EDR Contact: 05/17/2021
Number of Days to Update: 82	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	Source: EPA
Date Data Arrived at EDR: 01/21/2021	Telephone: 202-564-4203
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 04/20/2021
Number of Days to Update: 60	Next Scheduled EDR Contact: 08/02/2021
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: EPA
Date Data Arrived at EDR: 05/03/2021	Telephone: 703-416-0223
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 16	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/18/2021	Telephone: 202-564-8600
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 04/19/2021
Number of Days to Update: 82	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	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	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	Source: EPA
Date Data Arrived at EDR: 01/14/2021	Telephone: 202-564-6023
Date Made Active in Reports: 03/05/2021	Last EDR Contact: 06/04/2021
Number of Days to Update: 50	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	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 04/09/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/19/2021
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/31/2021
Number of Days to Update: 79	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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/11/2021	Telephone: 301-415-7169
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 04/16/2021
Number of Days to Update: 61	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	Source: Department of Energy
Date Data Arrived at EDR: 12/01/2020	Telephone: 202-586-8719
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 05/27/2021
Number of Days to Update: 70	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 05/27/2021
Number of Days to Update: 251	Next Scheduled EDR Contact: 09/13/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**PCB TRANSFORMER: PCB Transformer Registration Database**

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/07/2021
Number of Days to Update: 96	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 03/25/2021
Number of Days to Update: 84	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/27/2021
Number of Days to Update: 80	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Admini
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 05/27/2021
Number of Days to Update: 97	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	Source: Department of Interior
Date Data Arrived at EDR: 12/11/2020	Telephone: 202-208-2609
Date Made Active in Reports: 03/02/2021	Last EDR Contact: 06/02/2021
Number of Days to Update: 81	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	Source: EPA
Date Data Arrived at EDR: 03/03/2021	Telephone: (415) 947-8000
Date Made Active in Reports: 04/05/2021	Last EDR Contact: 05/18/2021
Number of Days to Update: 33	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	Source: Department of Defense
Date Data Arrived at EDR: 07/02/2020	Telephone: 703-704-1564
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 04/13/2021
Number of Days to Update: 77	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-564-2280
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 04/06/2021
Number of Days to Update: 73	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Resources 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Substances 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: Department 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 01/07/2020	Telephone: 559-445-5577
Date Made Active in Reports: 03/09/2020	Last EDR Contact: 04/09/2021
Number of Days to Update: 62	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/14/2021
Number of Days to Update: 9	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	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 03/19/2021
Number of Days to Update: 13	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	Next Scheduled EDR Contact: 09/20/2021
	Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 03/08/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 916-341-5810
Date Made Active in Reports: 03/31/2021	Last EDR Contact: 06/07/2021
Number of Days to Update: 22	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/01/2020	Telephone: 866-794-4977
Date Made Active in Reports: 02/12/2021	Last EDR Contact: 05/19/2021
Number of Days to Update: 73	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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 01/20/2021	Telephone: 916-323-2514
Date Made Active in Reports: 04/08/2021	Last EDR Contact: 04/20/2021
Number of Days to Update: 78	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/09/2021	Telephone: 866-480-1028
Date Made Active in Reports: 03/30/2021	Last EDR Contact: 06/03/2021
Number of Days to Update: 21	Next Scheduled EDR Contact: 09/20/2021
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

RGALUST: 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 7

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

AOCNCERN: 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: Division 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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

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).

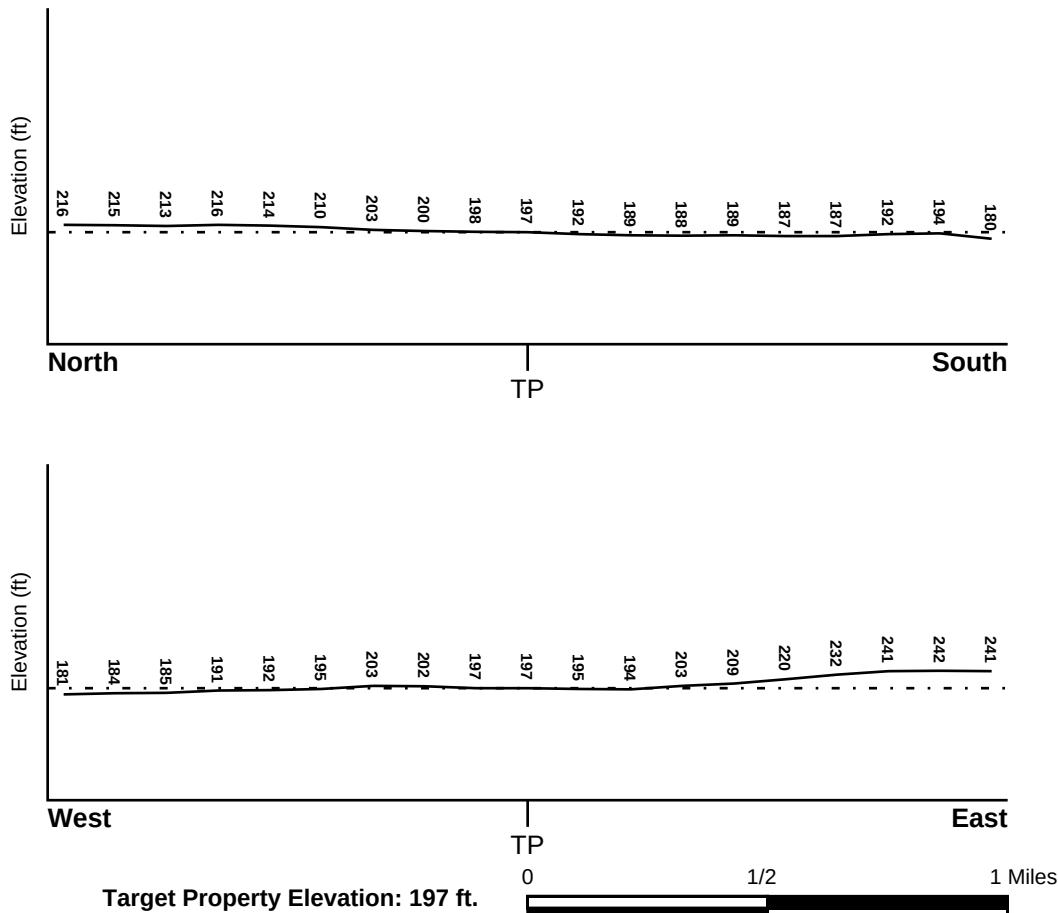
TOPOGRAPHIC INFORMATION

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



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06067C0240H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06067C0250H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

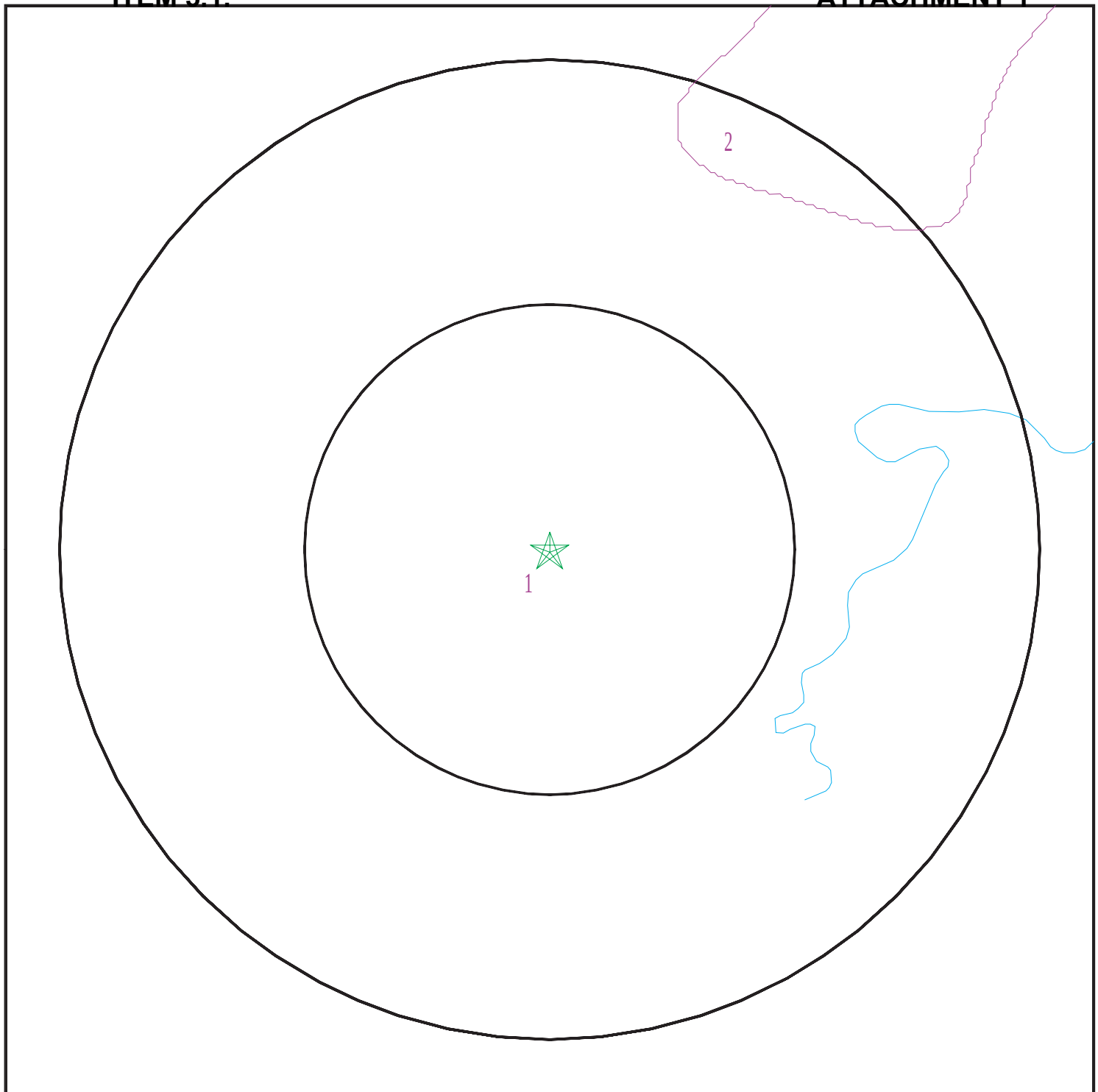
ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).



- ★ Target Property
- ∕ SSURGO Soil
- ∕ Water

0 1/16 1/8 1/4 Miles



SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent Switchyard
Rancho Cordova CA 95742
LAT/LONG: 38.554523 / 121.206557

CLIENT: EA Engineering Science & Tech.
CONTACT: Denise Pereira
INQUIRY #: 6532774.2s
DATE: June 11, 2021 1:51 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: 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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
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

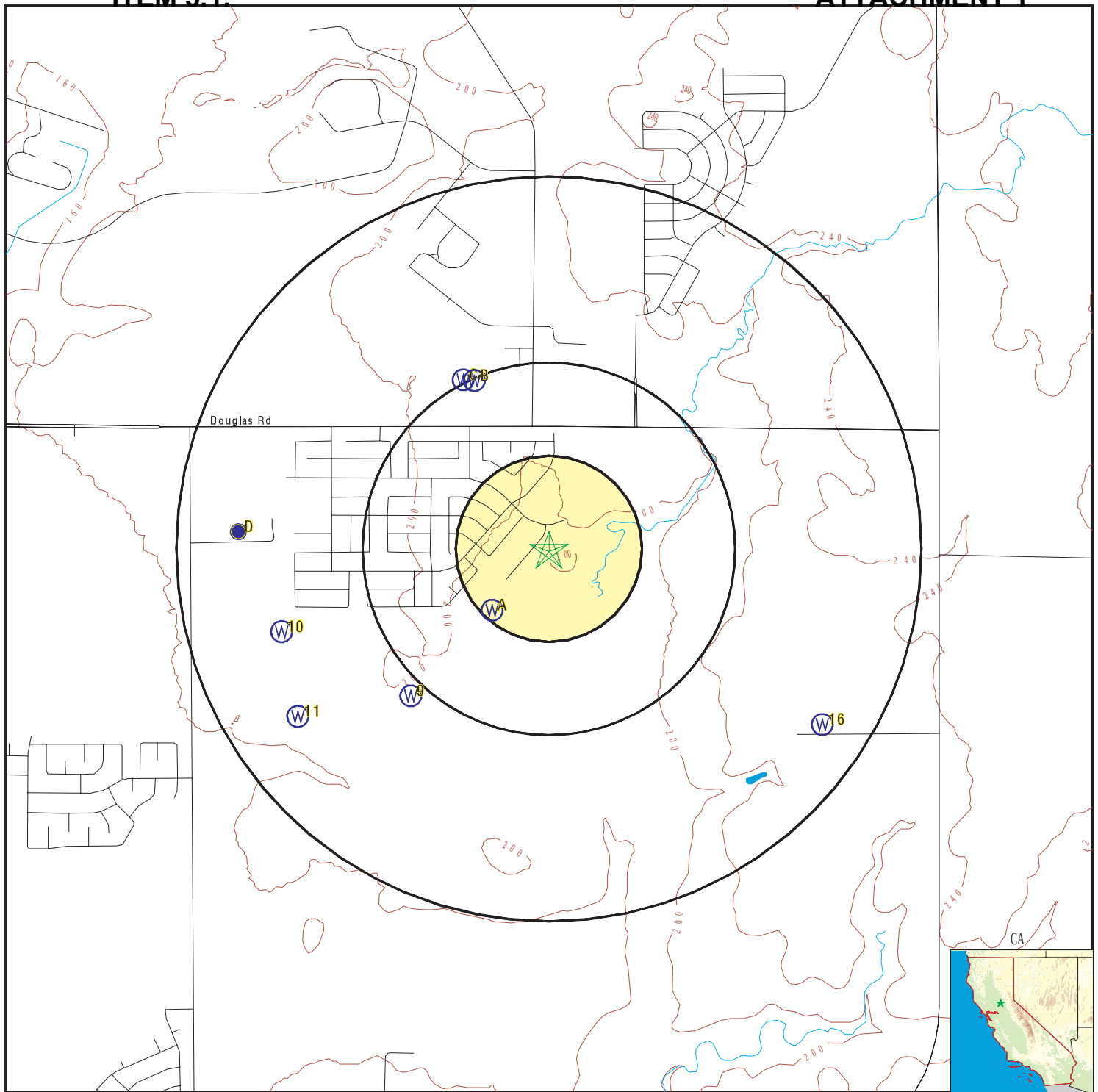
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
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

ITEM 5.1. PHYSICAL SETTING SOURCE MAP - 6532774.2s ATTACHMENT 1



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent Switchyard
 Rancho Cordova CA 95742
 LAT/LONG: 38.554523 / 121.206557

CLIENT: EA Engineering Science & Tech.
 CONTACT: Denise Pereira
 INQUIRY #: 6532774.2s
 DATE: June 11, 2021 1:51 pm

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.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	25-AUG-15	Finding:	12.9
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	25-AUG-15	Finding:	6.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	25-AUG-15	Finding:	11.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	25-AUG-15	Finding:	1.74
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		
Sample date:	25-AUG-15	Finding:	5.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	25-AUG-15	Finding:	150.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	25-AUG-15	Finding:	0.24
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		
Sample date:	25-AUG-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		
Sample date:	25-AUG-15	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	14-AUG-14	Finding:	7.59
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	08-MAY-14	Finding:	66.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	08-MAY-14	Finding:	150.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	08-MAY-14	Finding:	80.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	08-MAY-14	Finding:	7.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	08-MAY-14	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dir:	1.		
Sample date:	08-MAY-14	Finding:	2.5
Chemical:	SULFATE	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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 Units: 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

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

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 California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Health Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United States Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON**State Database: CA Radon**

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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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

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. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	0731611 proposal no	Latitude:	38.554523 38° 33' 16" North
Project:	Sunridge Solar	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

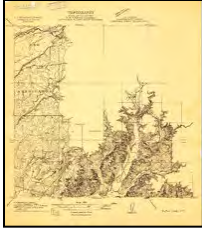
Folsom
1941
15-minute, 62500

1916 Source Sheets

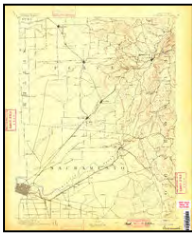
Buffalo Creek
1916
7.5-minute, 31680

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

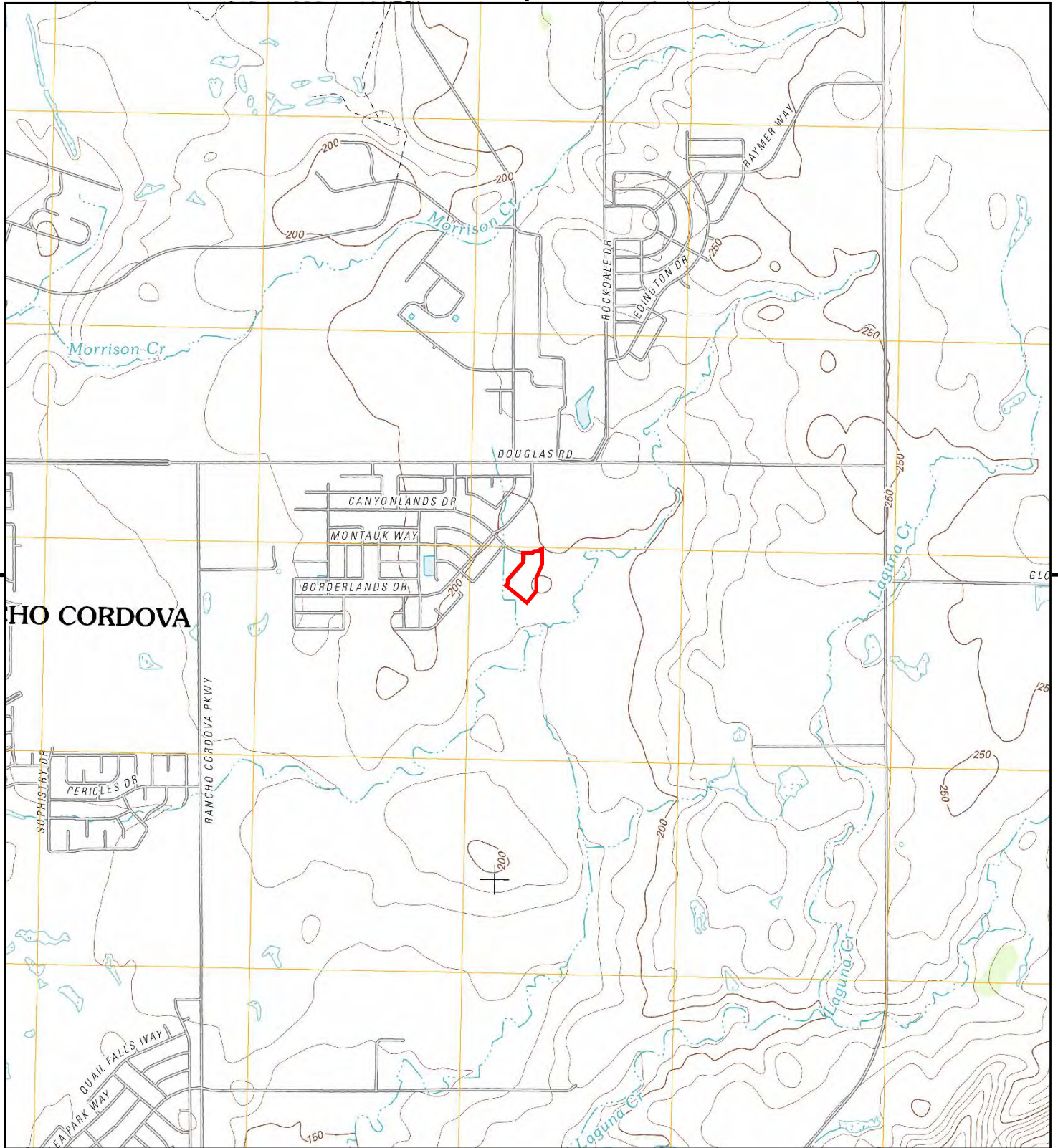
Sacramento
1893
30-minute, 125000

1892 Source Sheets

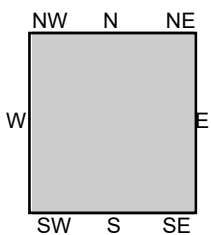
Sacramento
1892
30-minute, 125000

1891 Source Sheets

Sacramento
1891
30-minute, 125000



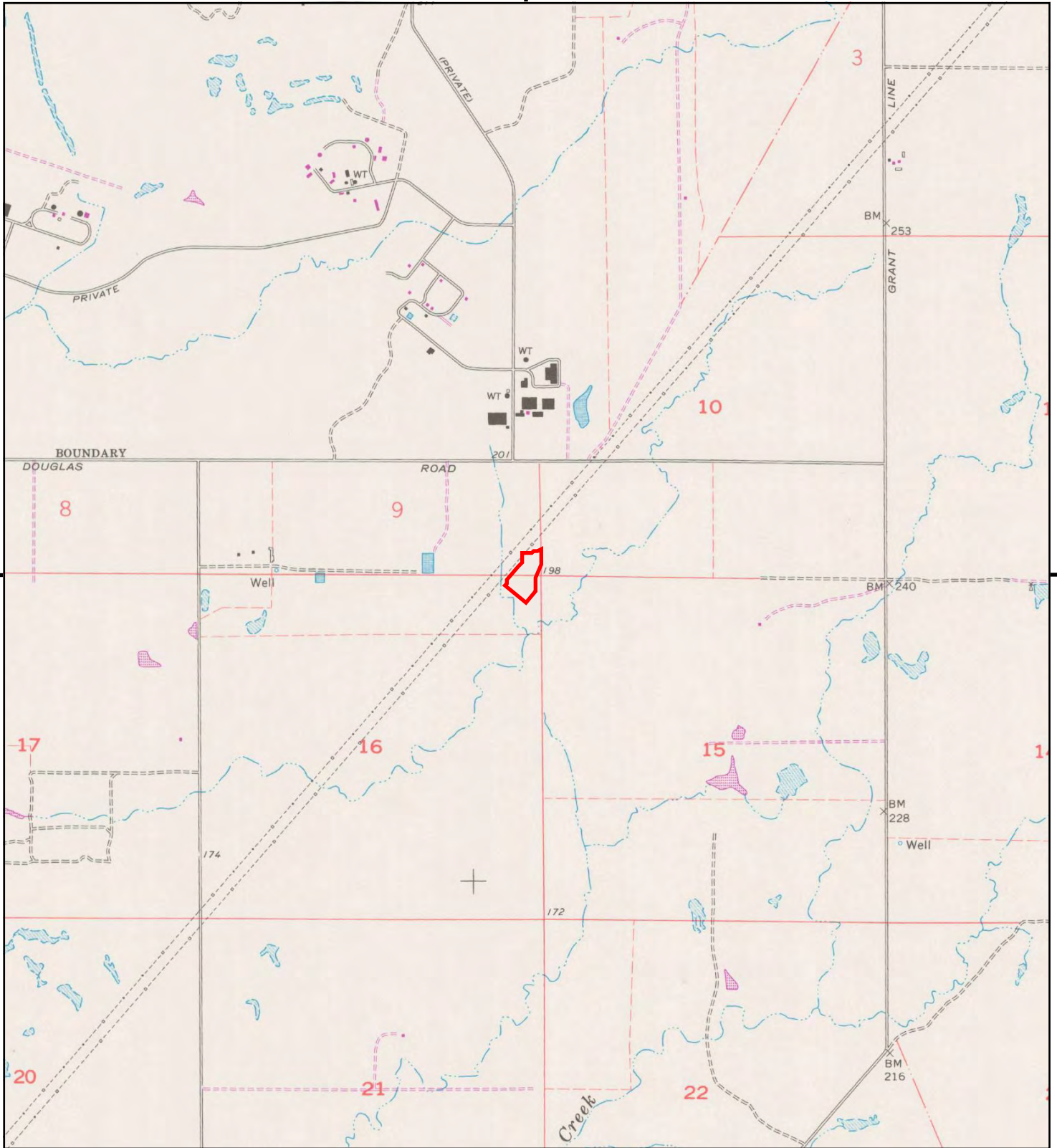
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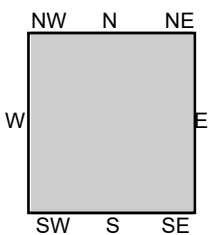
TP, Buffalo Creek, 2012, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





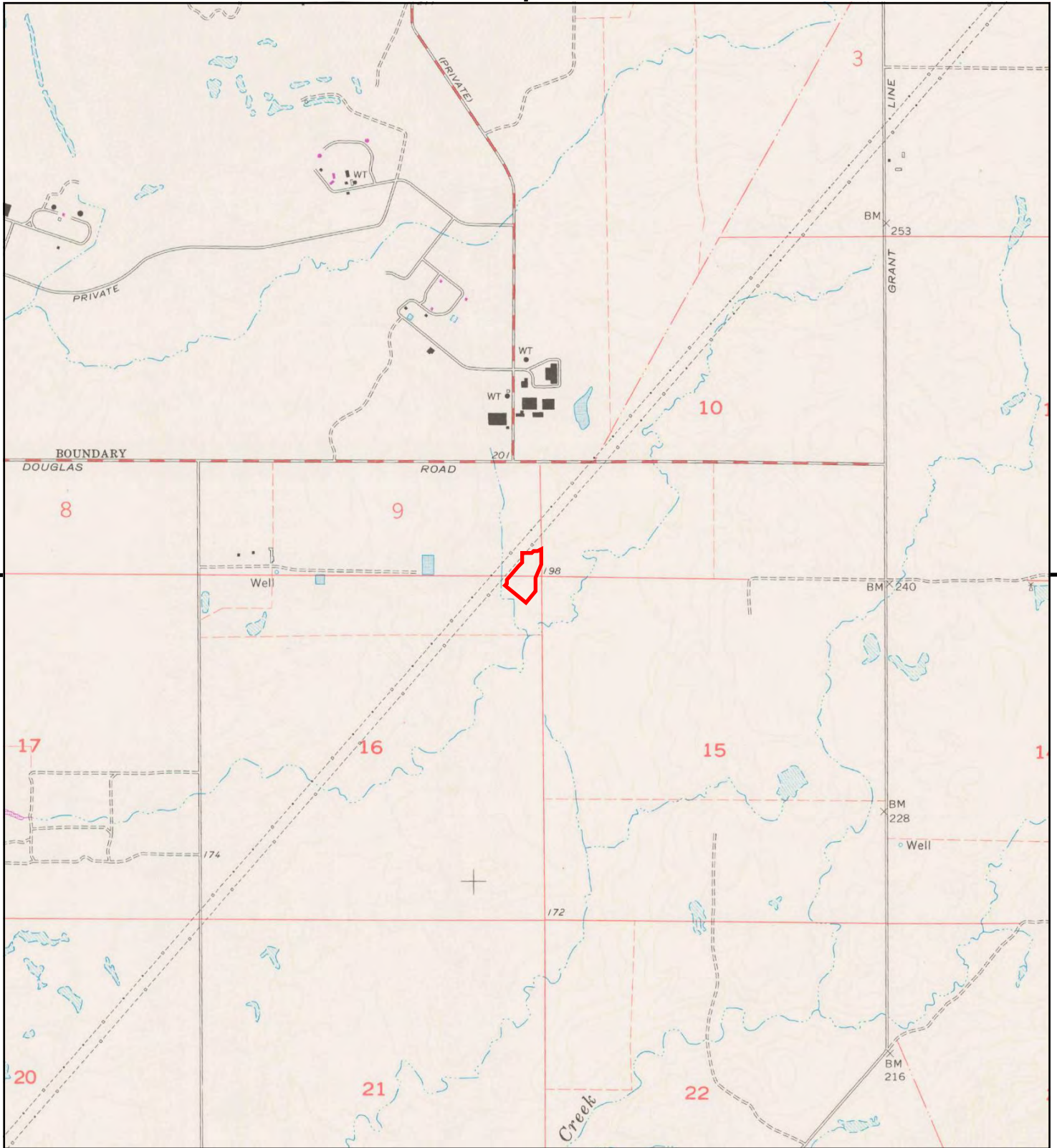
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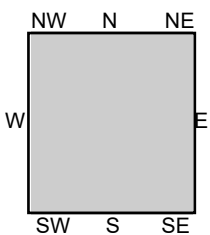
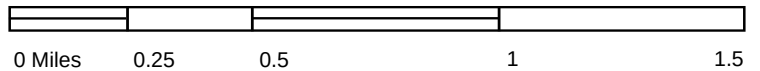
TP, Buffalo Creek, 1980, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





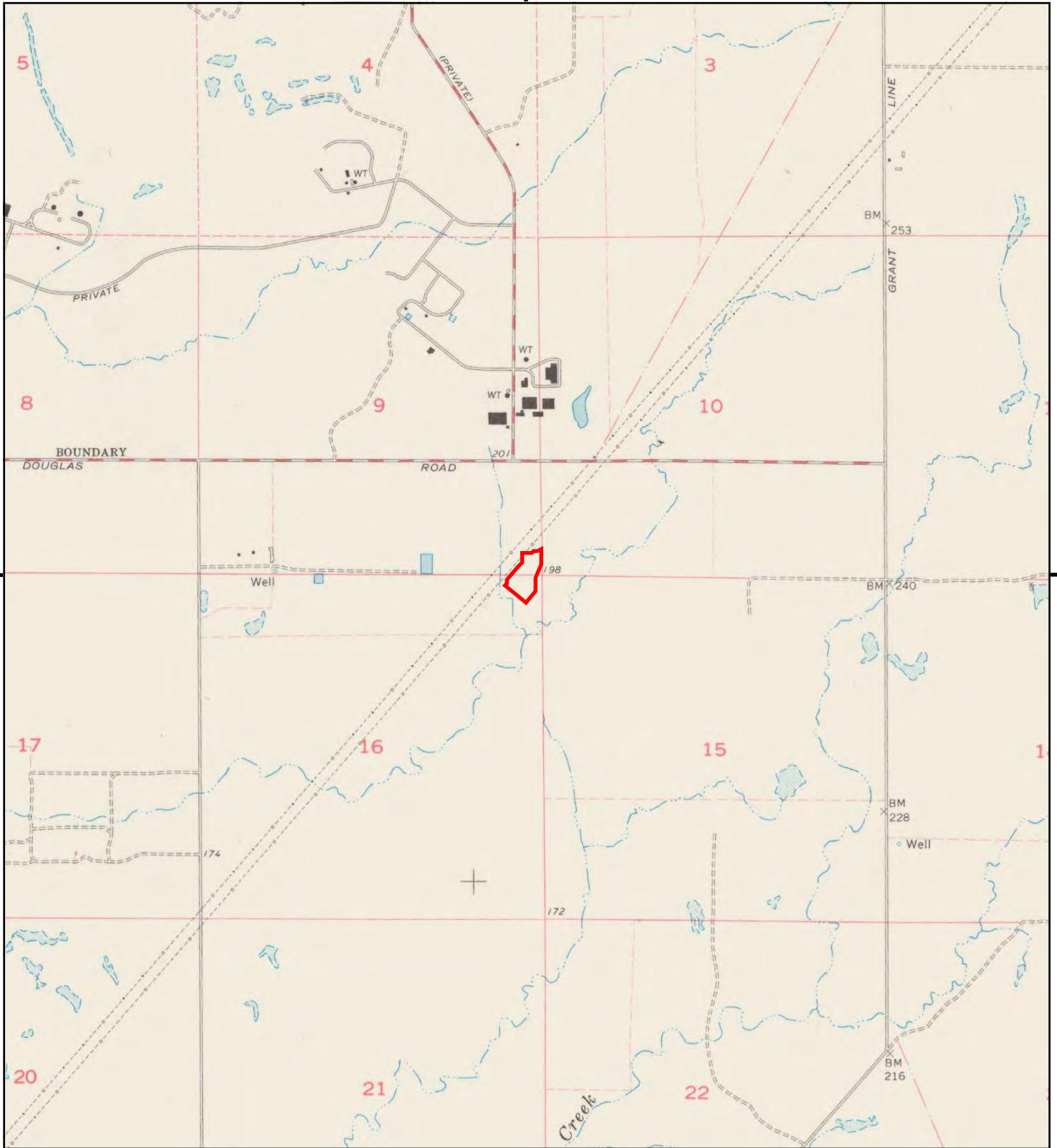
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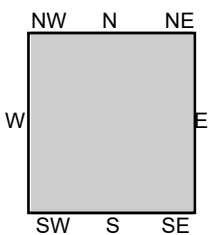
TP, Buffalo Creek, 1975, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





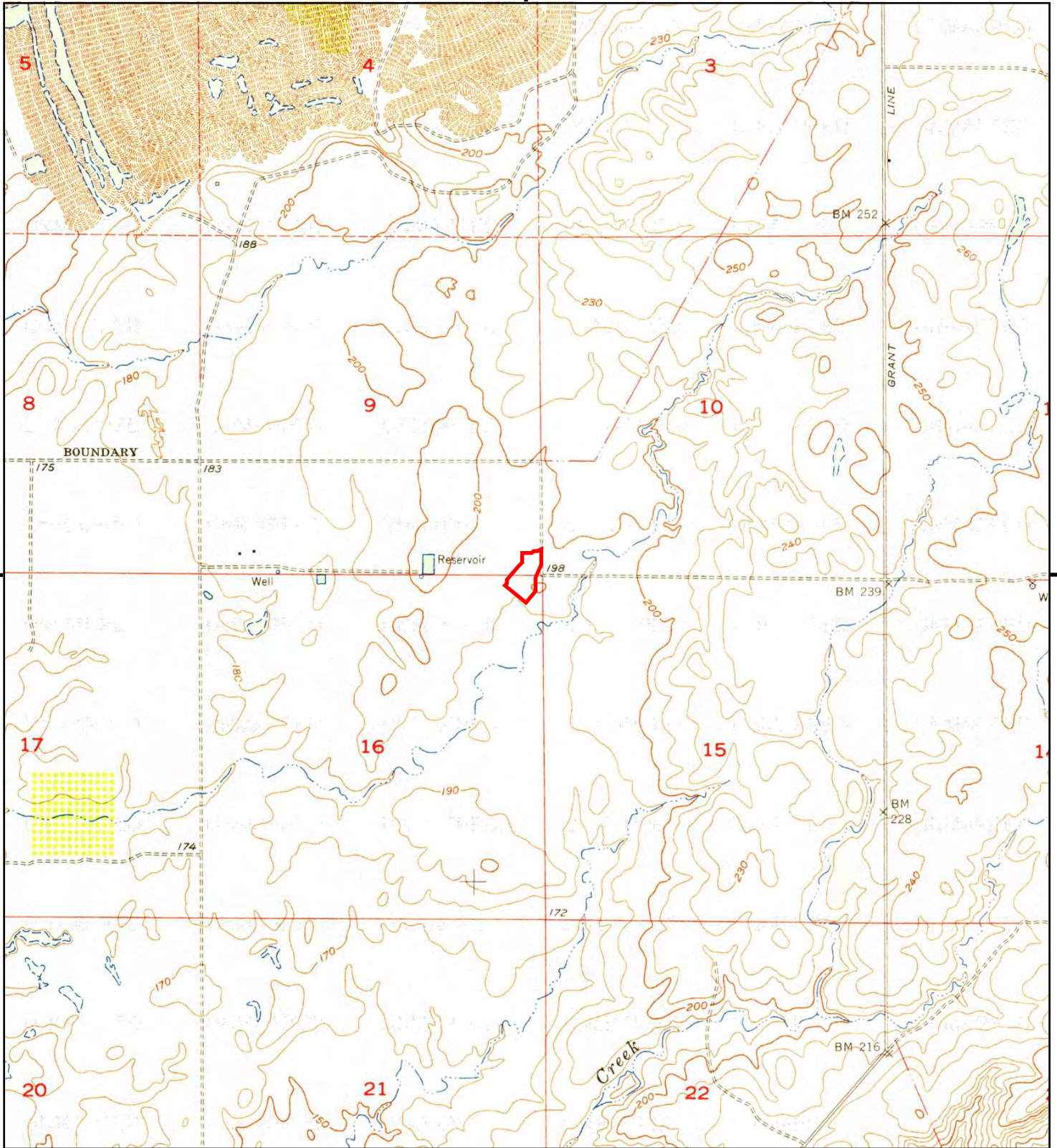
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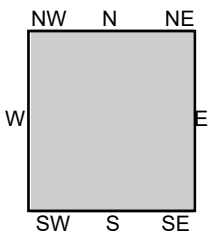
TP, Buffalo Creek, 1967, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





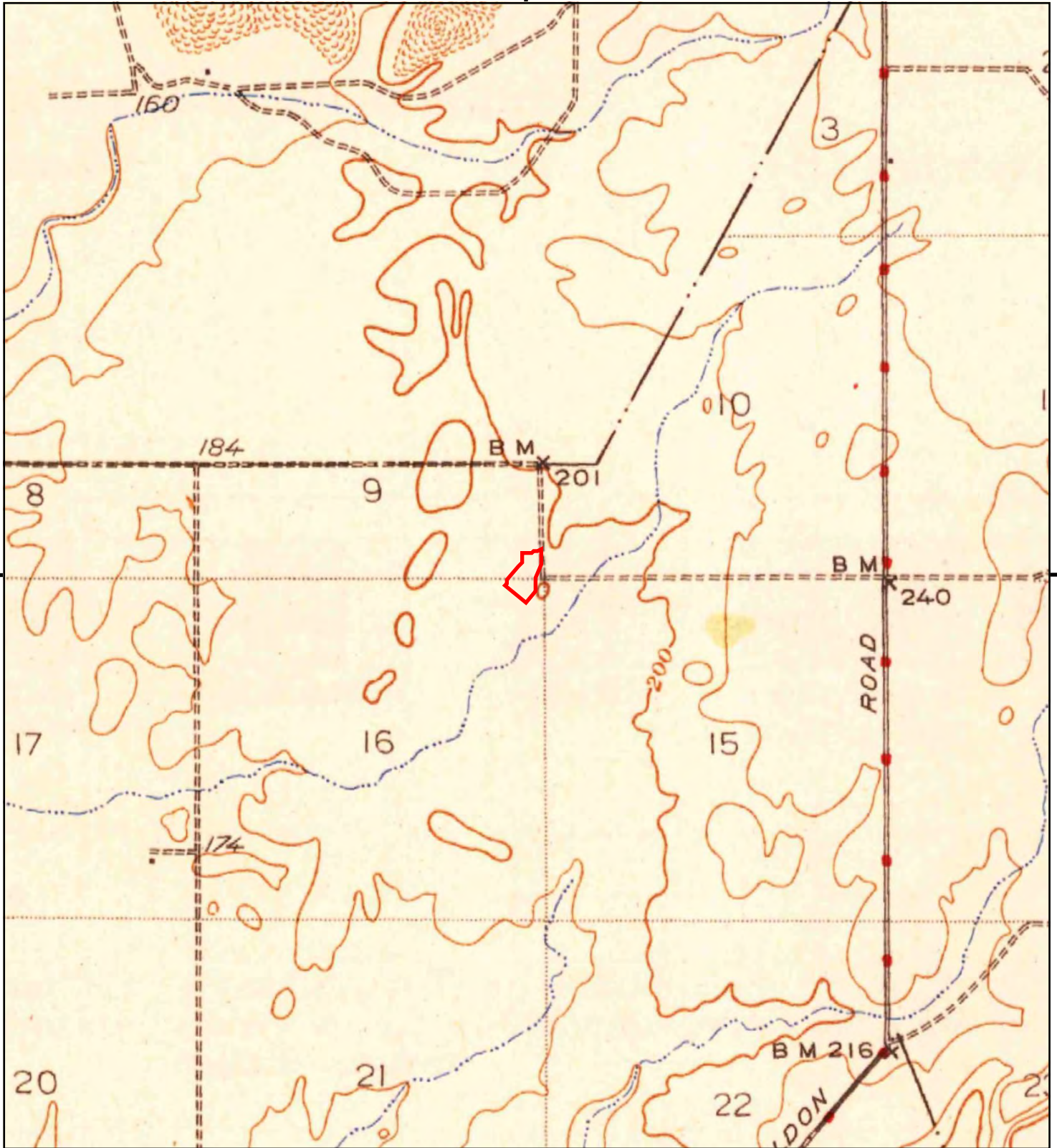
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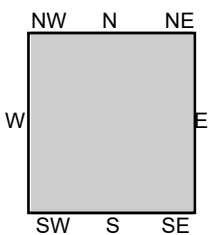
TP, Buffalo Creek, 1954, 7.5-minute

SITE NAME: Sunridge Solar
ADDRESS: 4151 Poopenaut CT Address of Adjacent
Rancho Cordova, CA 95742
CLIENT: EA Engineering Science & Tech.





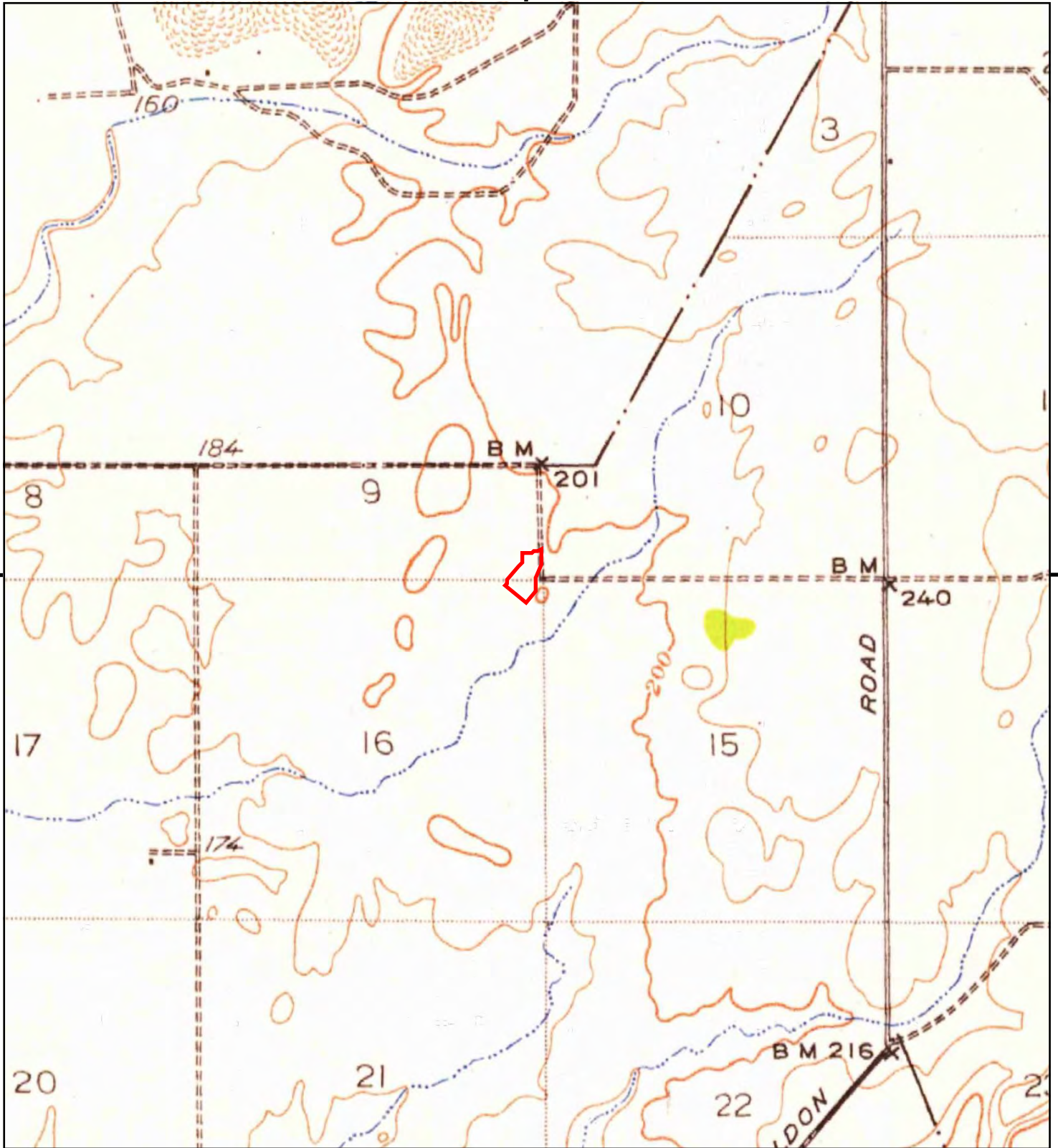
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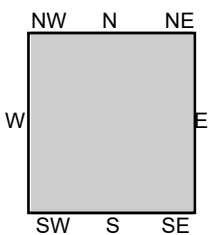
TP, Folsom, 1944, 15-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





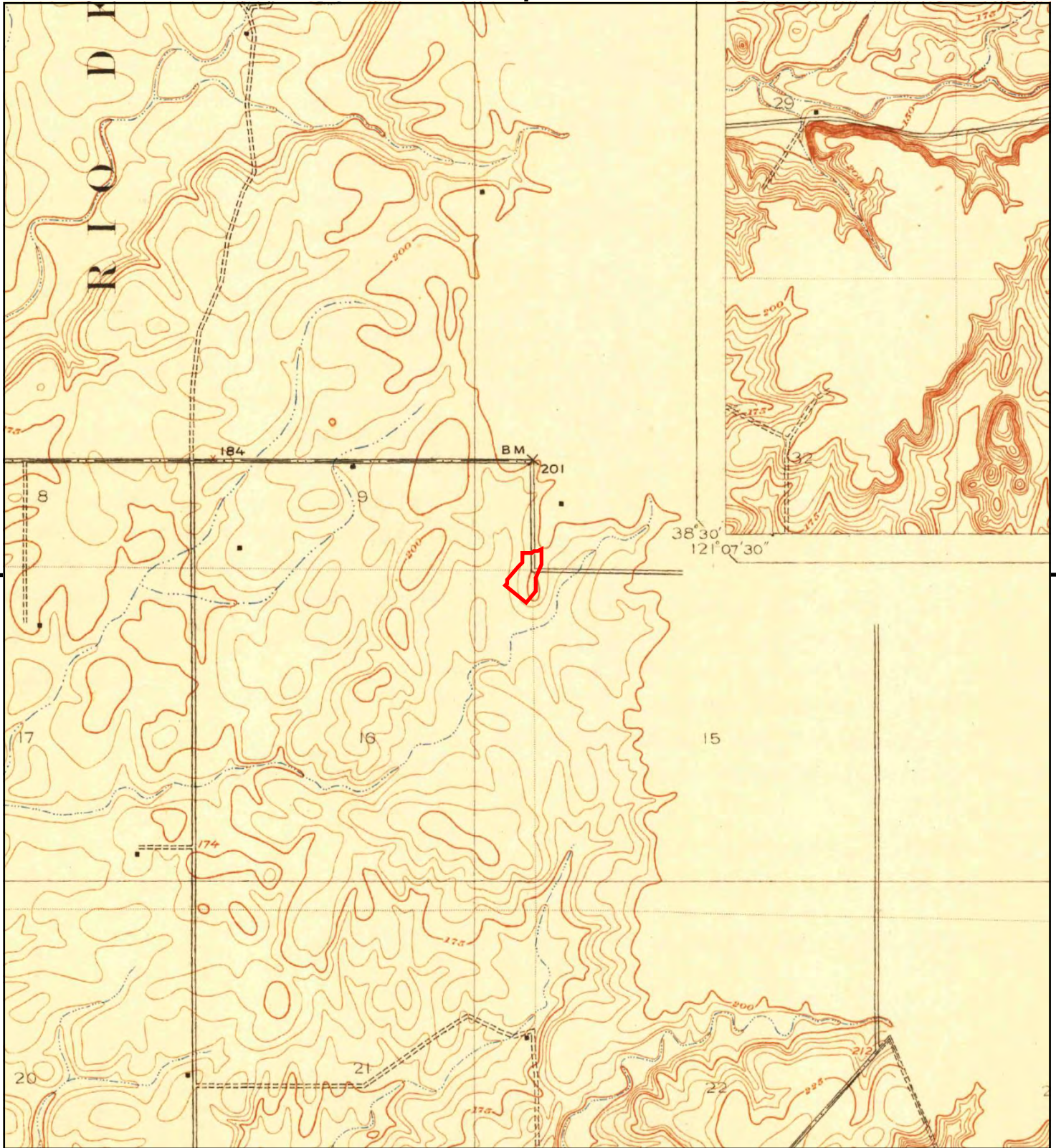
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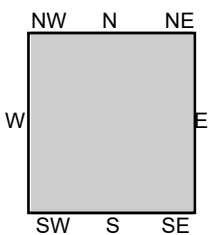
TP, Folsom, 1941, 15-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





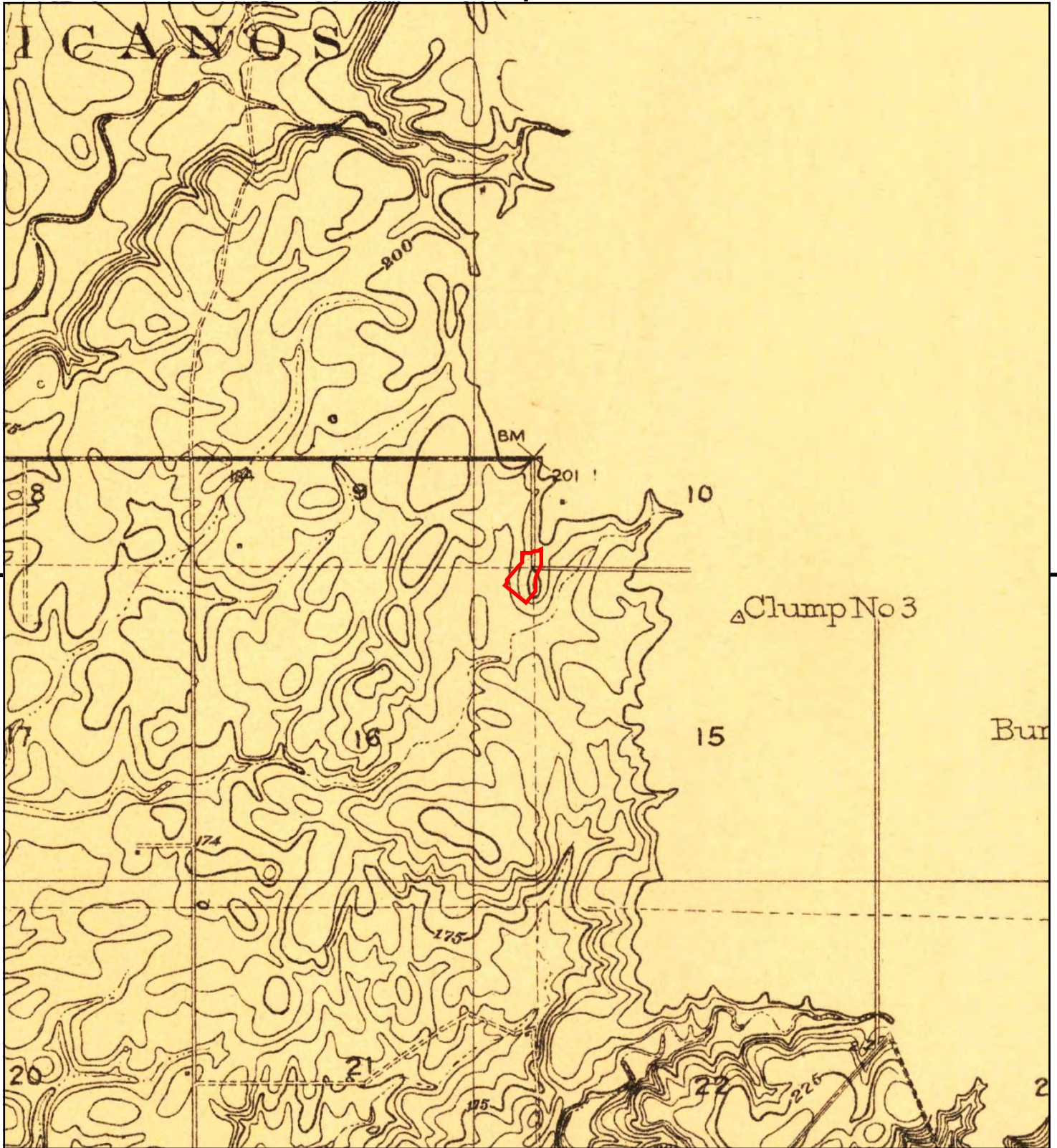
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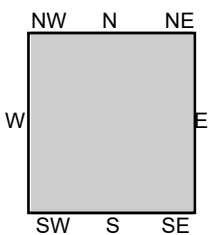
TP, Buffalo Creek, 1916, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





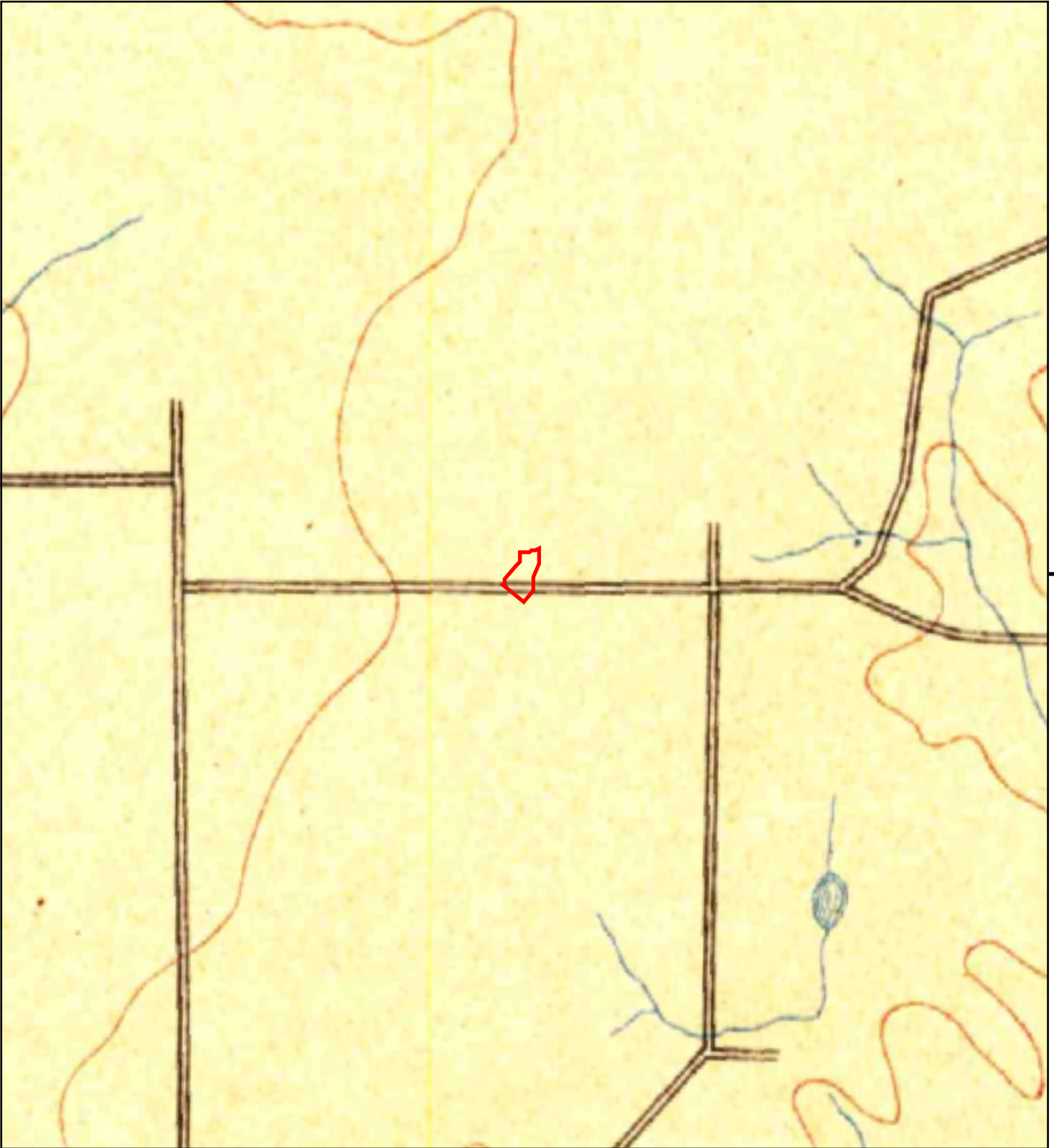
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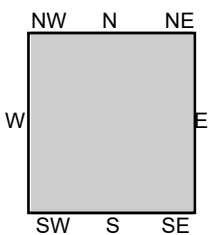
TP, Buffalo Creek, 1908, 7.5-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





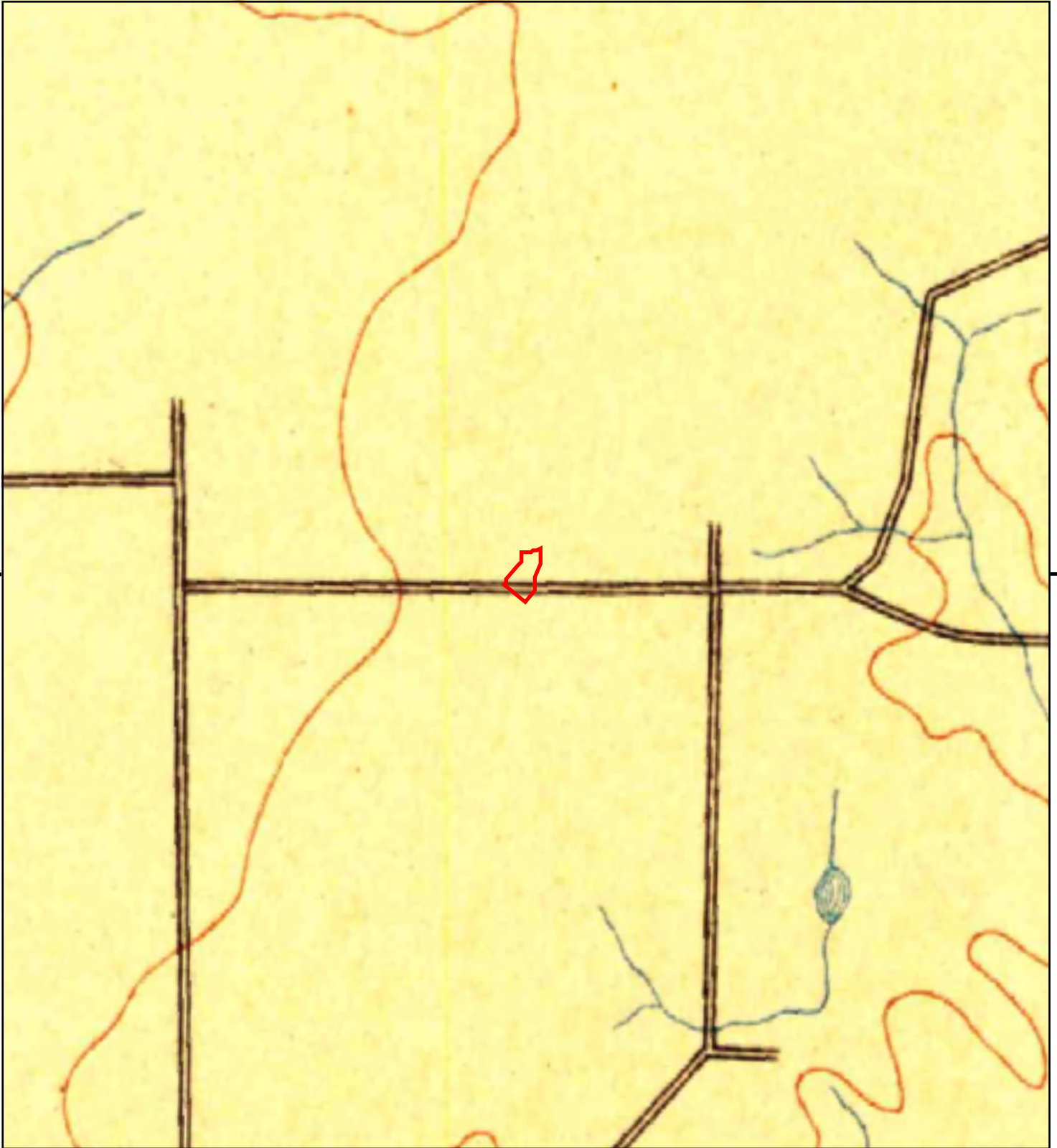
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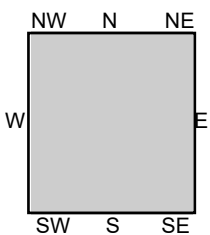
TP, Sacramento, 1893, 30-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





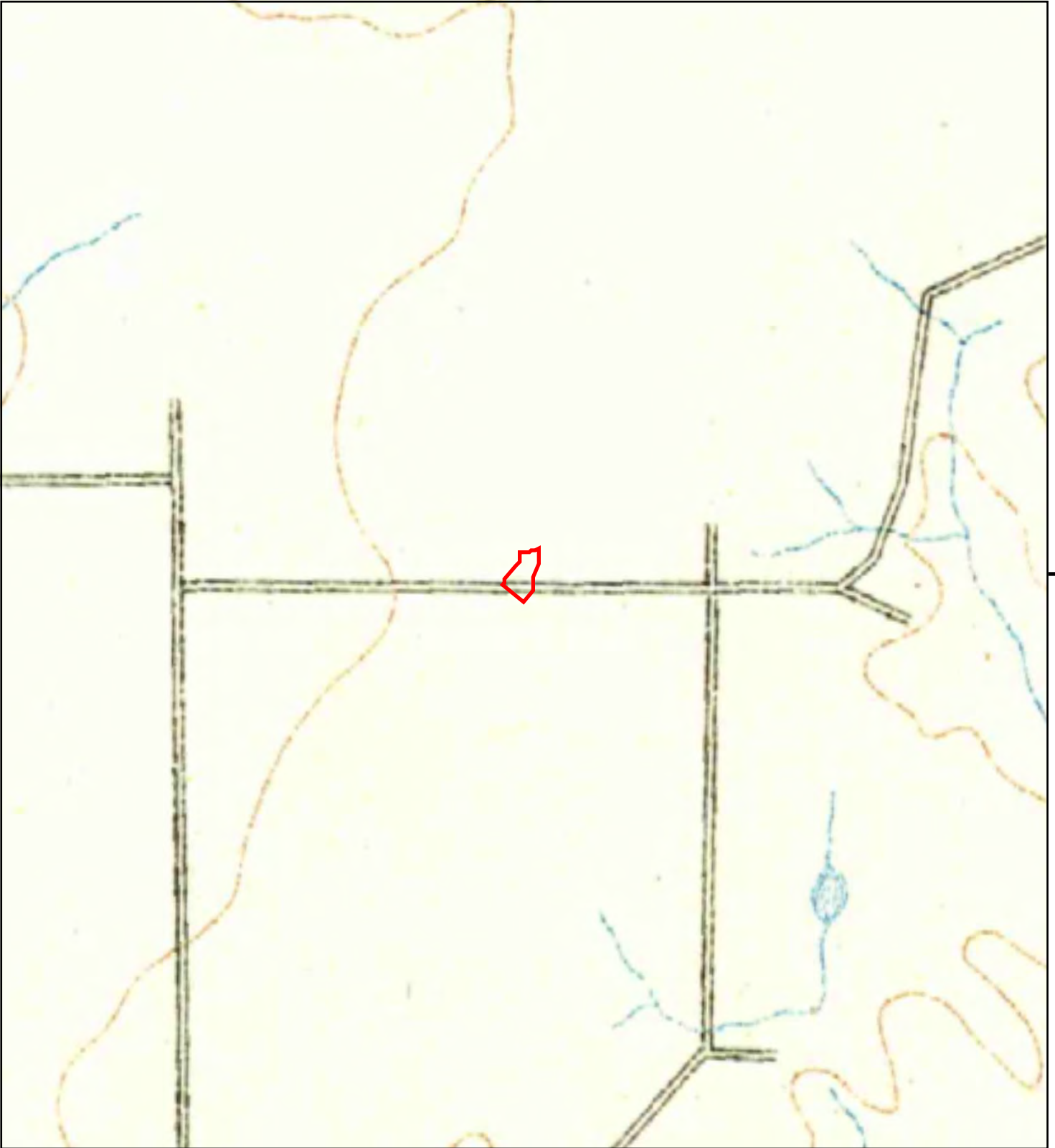
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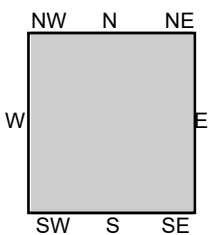
TP, Sacramento, 1892, 30-minute

SITE NAME: Sunridge Solar
 ADDRESS: 4151 Poopenaut CT Address of Adjacent
 Rancho Cordova, CA 95742
 CLIENT: EA Engineering Science & Tech.





This report includes information from the following map sheet(s).



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.



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

Site Name:

Sunridge Solar
4151 Poopenaut CT Address c
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:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
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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INQUIRY #: 6532774.11

YEAR: 2016



— = 500'



INQUIRY #: 6532774.11

YEAR: 2012

500'





INQUIRY #: 6532774.11

YEAR: 2009

— = 500'





INQUIRY #: 6532774.11

YEAR: 2006

— = 500'





INQUIRY #: 6532774.11

YEAR: 1998

— = 500'





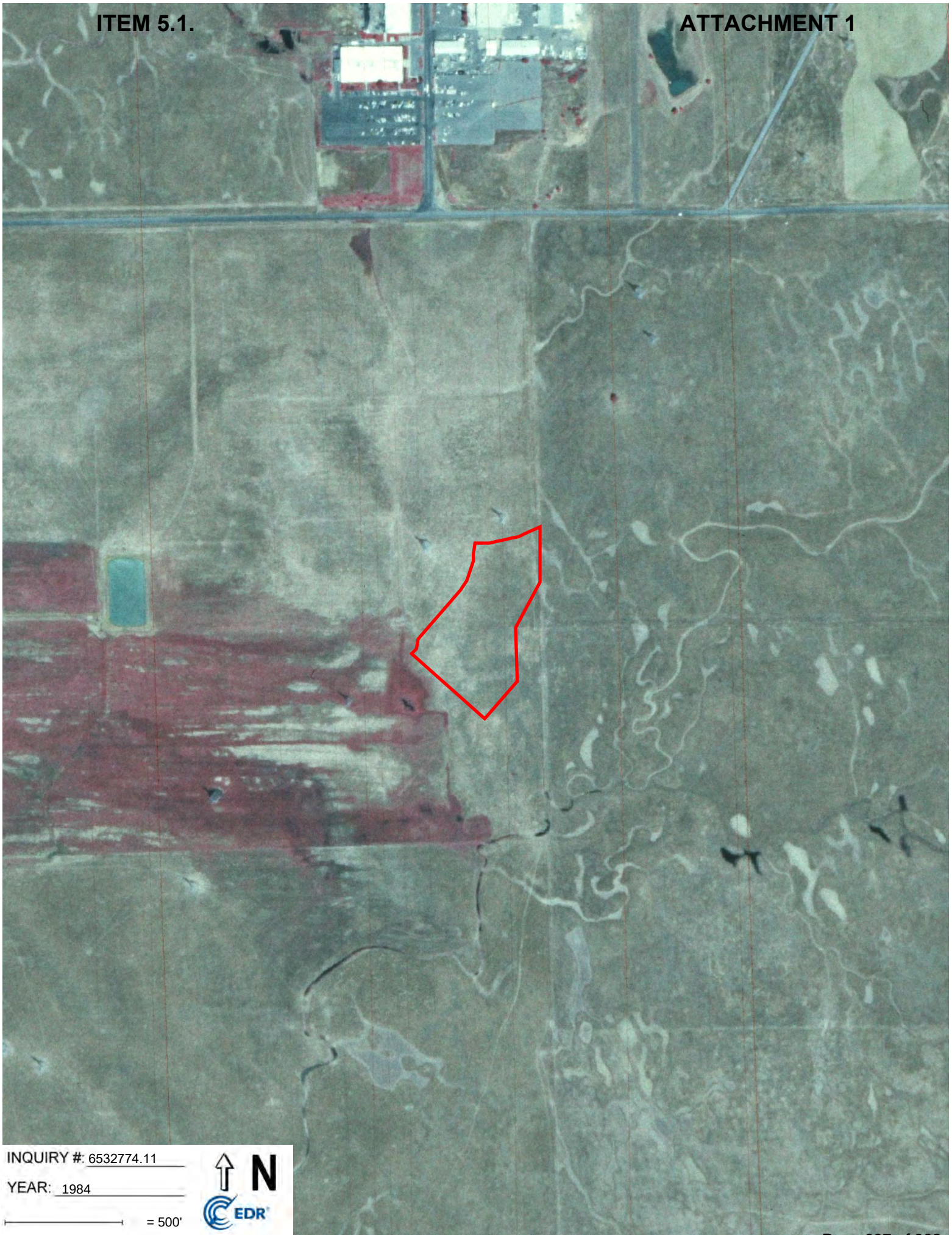
INQUIRY #: 6532774.11

YEAR: 1993

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.

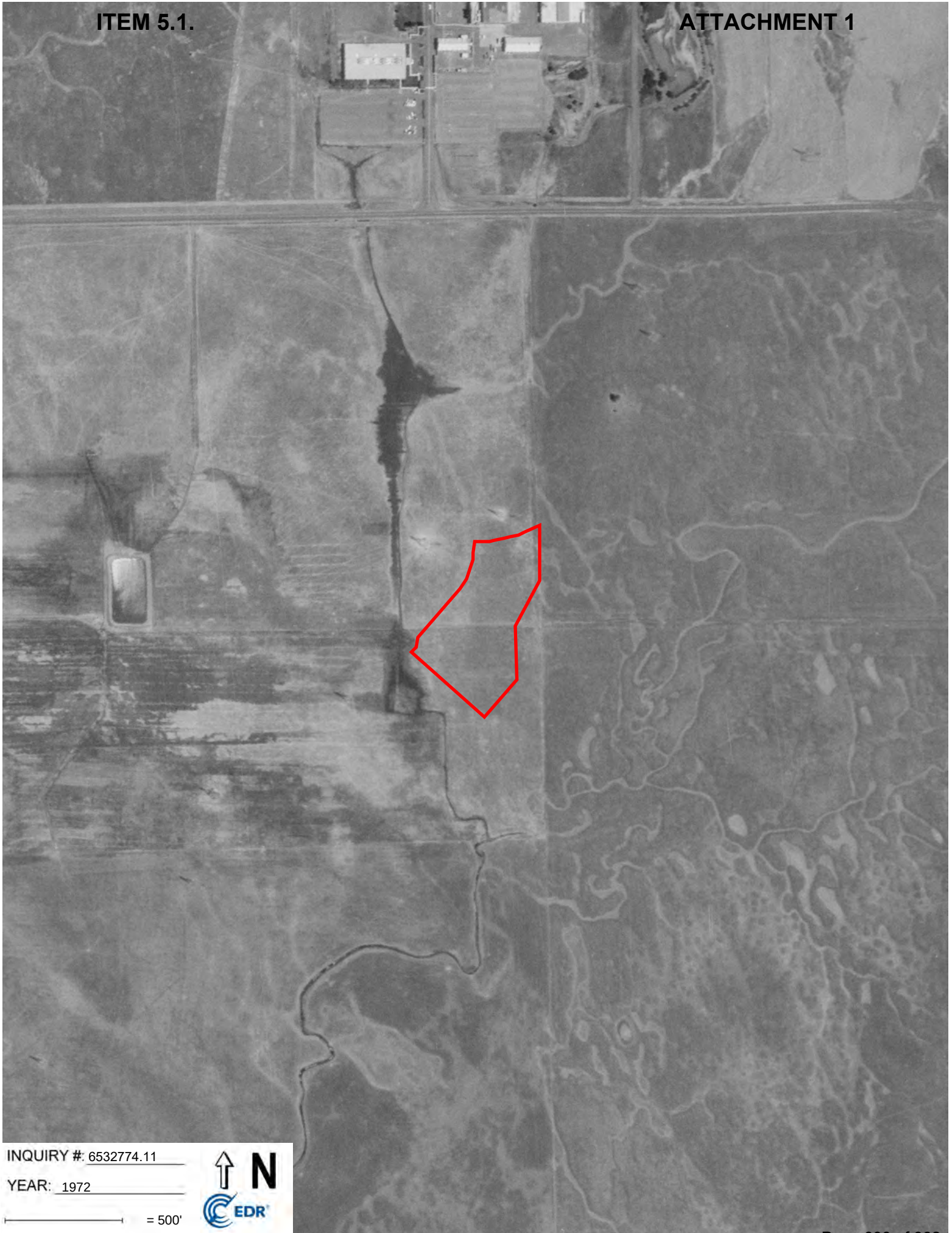


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YEAR: 1984

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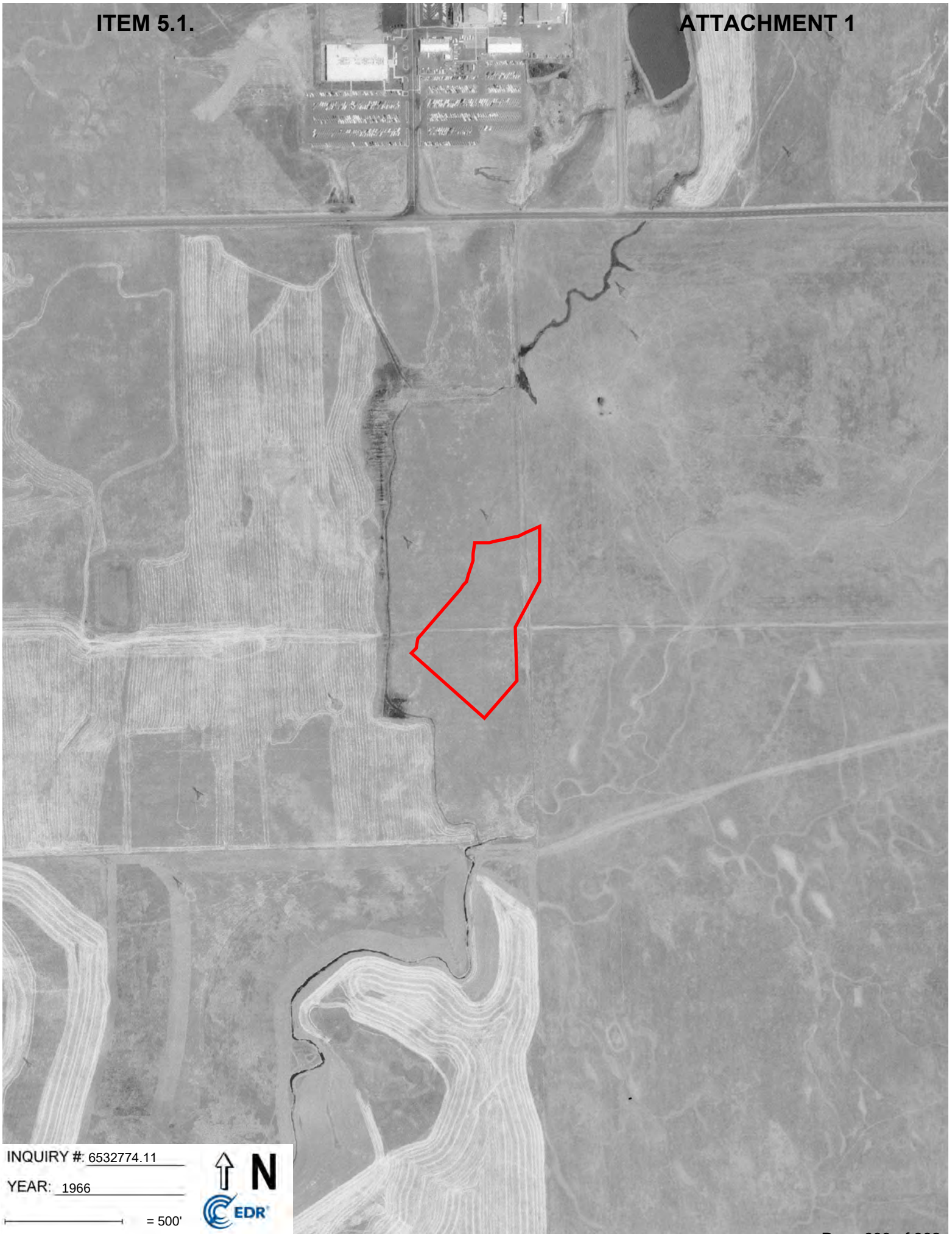


INQUIRY #: 6532774.11

YEAR: 1972

— = 500'





INQUIRY #: 6532774.11

YEAR: 1966

— = 500'



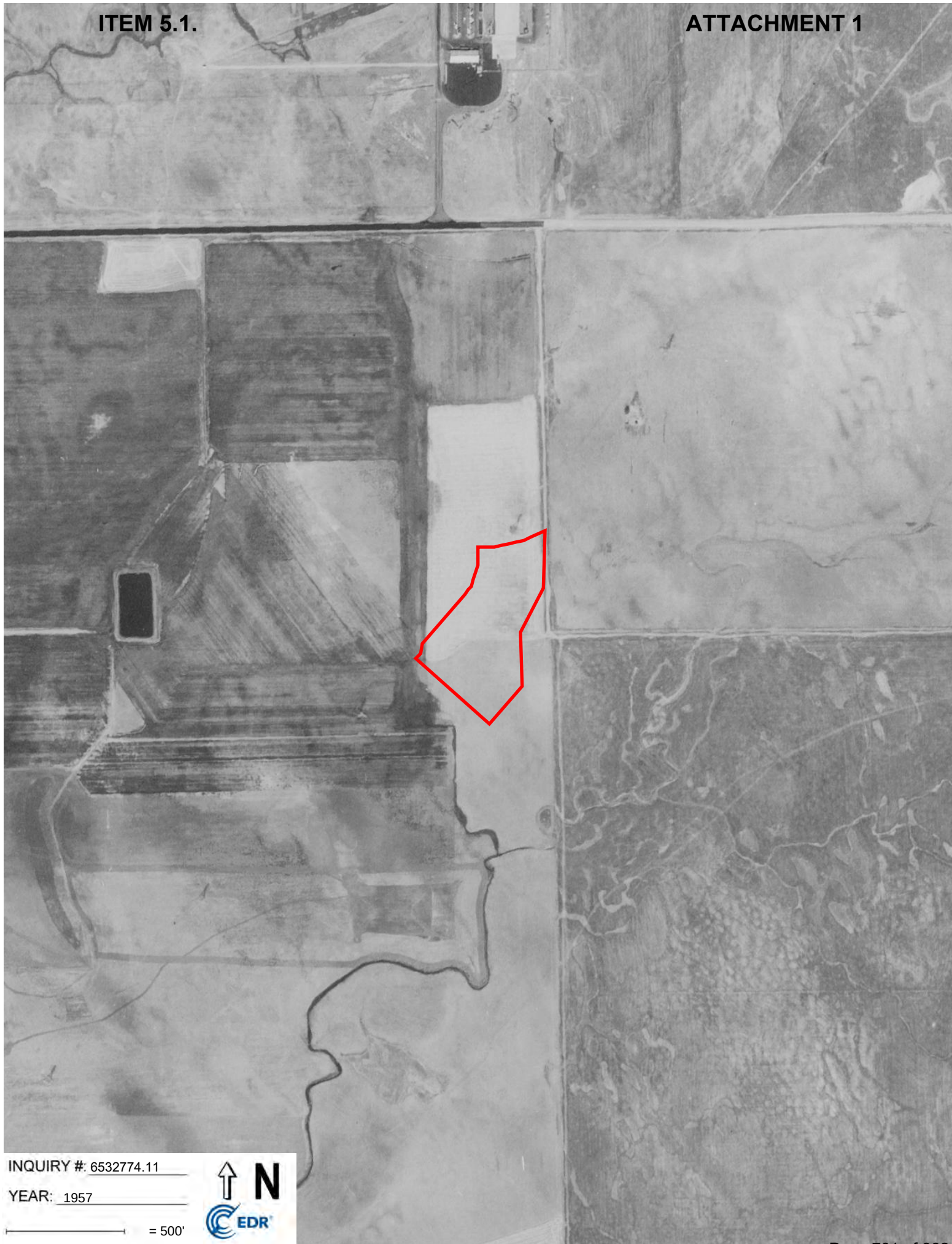


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YEAR: 1964

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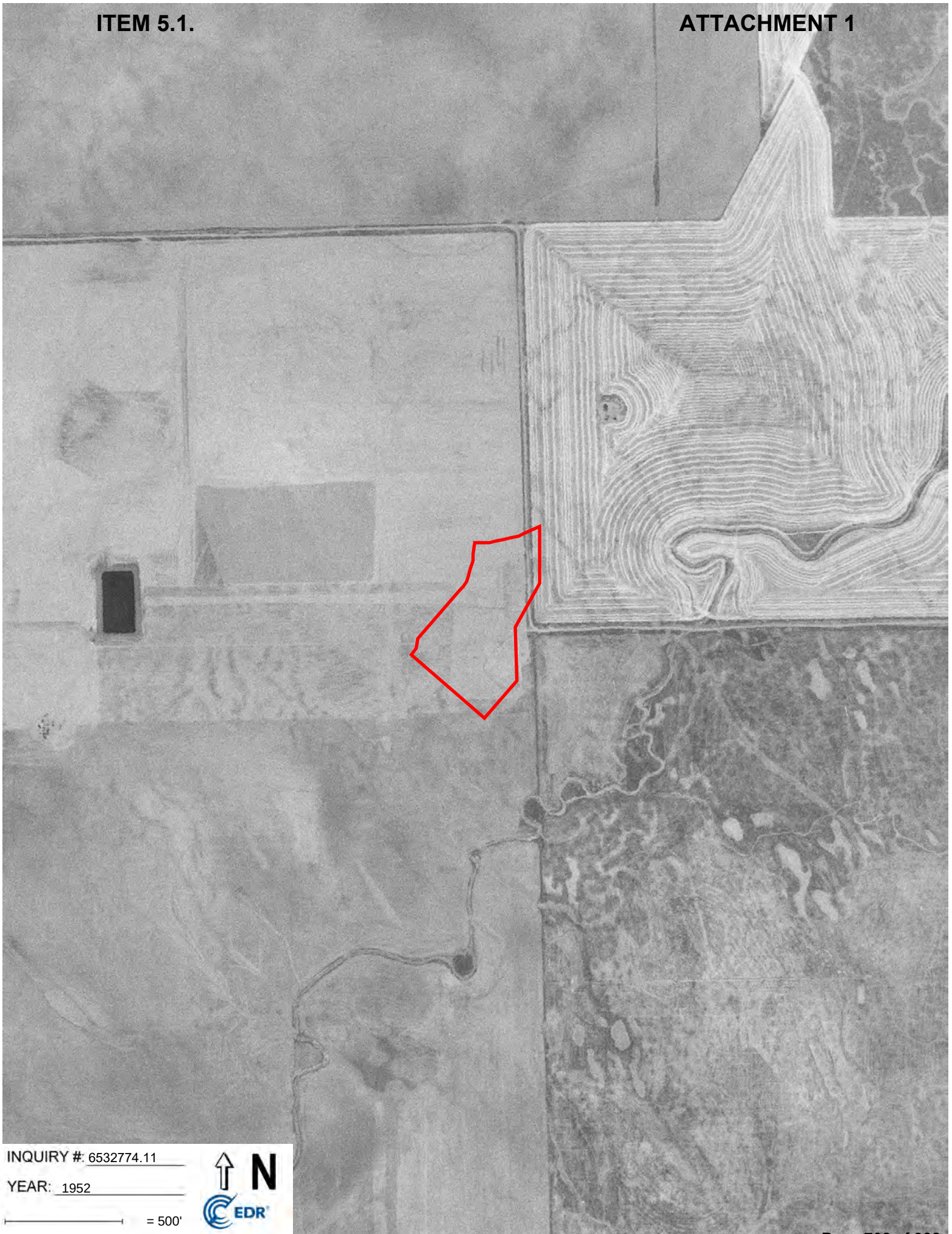


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YEAR: 1957

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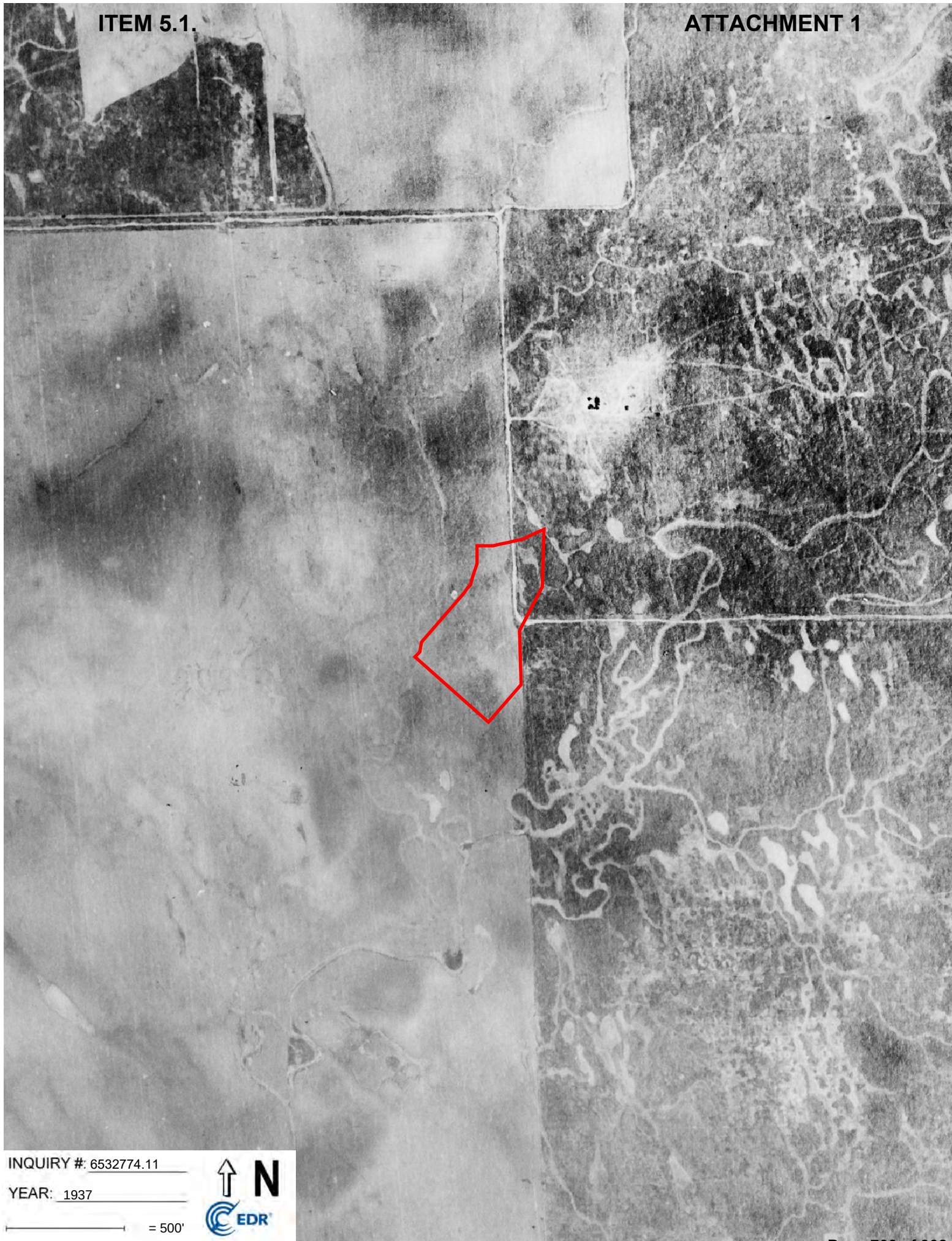


INQUIRY #: 6532774.11

YEAR: 1952

— = 500'





INQUIRY #: 6532774.11

YEAR: 1937

— = 500'



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

TABLE OF CONTENTS**SECTION****Executive Summary****Findings****City Directory Images**

Thank you for your business.

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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.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
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



Sanborn® Library search results

Certification #: E24F-46F5-A0E5

UNMAPED 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.

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

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, dual-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.

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

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 Intent 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 subsurface 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 dual 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 ordnance 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. Compiled 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—2018-2019

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, hollow stem auger drilling, mud rotary drilling.
- Site investigation and due diligence.
- Technical writing.

Appendix F

Noise and Vibration Assessment Letter Report

May 9, 2023

Parker Hills
Vesper Energy
125 E. John Carpenter Fwy, Ste 525
Irving, Texas 75062

Subject: Juniper Creek Energy Storage Project, Rancho Cordova (Sacramento County), California
Noise and Vibration Assessment Letter Report

Dear Mr. Hills:

Consistent with the approved scope of work, this concise draft letter report prepared for the Juniper Creek 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 Juniper Creek 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.

Vesper Energy

Juniper Creek Energy Storage Facility, Rancho Cordova, California

Noise Letter Report

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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.

Vesper Energy

Juniper Creek Energy Storage Facility, Rancho Cordova, California

Noise Letter Report

May 9, 2023

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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.

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- 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/Cordova Substation 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.

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3 Project Description

The 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.

The Project also entails improvements to the existing Sacramento Municipal Utility District (SMUD) Cordova Substation to interconnect and accommodate the Project. The improvements will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding an additional circuit breaker and disconnect switch. Specific upgrades will be finalized through the ongoing interconnection process with SMUD. The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation.

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

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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

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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.

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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.

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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 energy storage facility and Cordova Substation improvements 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

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Table 5. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dB) – 50 feet from Source
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

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 Backhoe	Dozer Excavator
Construction Activity	Building Construction/Cordova Substation Improvements	
Equipment Needed	Forklift Backhoe	Crane Generator
Construction Activity	Paving	
Equipment Needed	Paver	Dump Truck

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	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/Cordova Substation Improvements	Phase 4: Paving	Phase 5: Architectural Coating
Nearest Off-Site Receivers West (275 feet)	Residential	66	70	70	63	59
Nearest Off-Site Receivers	Park	62	66	66	60	55

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North (410 feet)						
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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

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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: $PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$. 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.

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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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ITEM 5.1.

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ATTACHMENT 1

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 (0.0000000001) 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.

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ATTACHMENT 1

ATTACHMENT 2

AMBIENT NOISE MEASUREMENT DATA

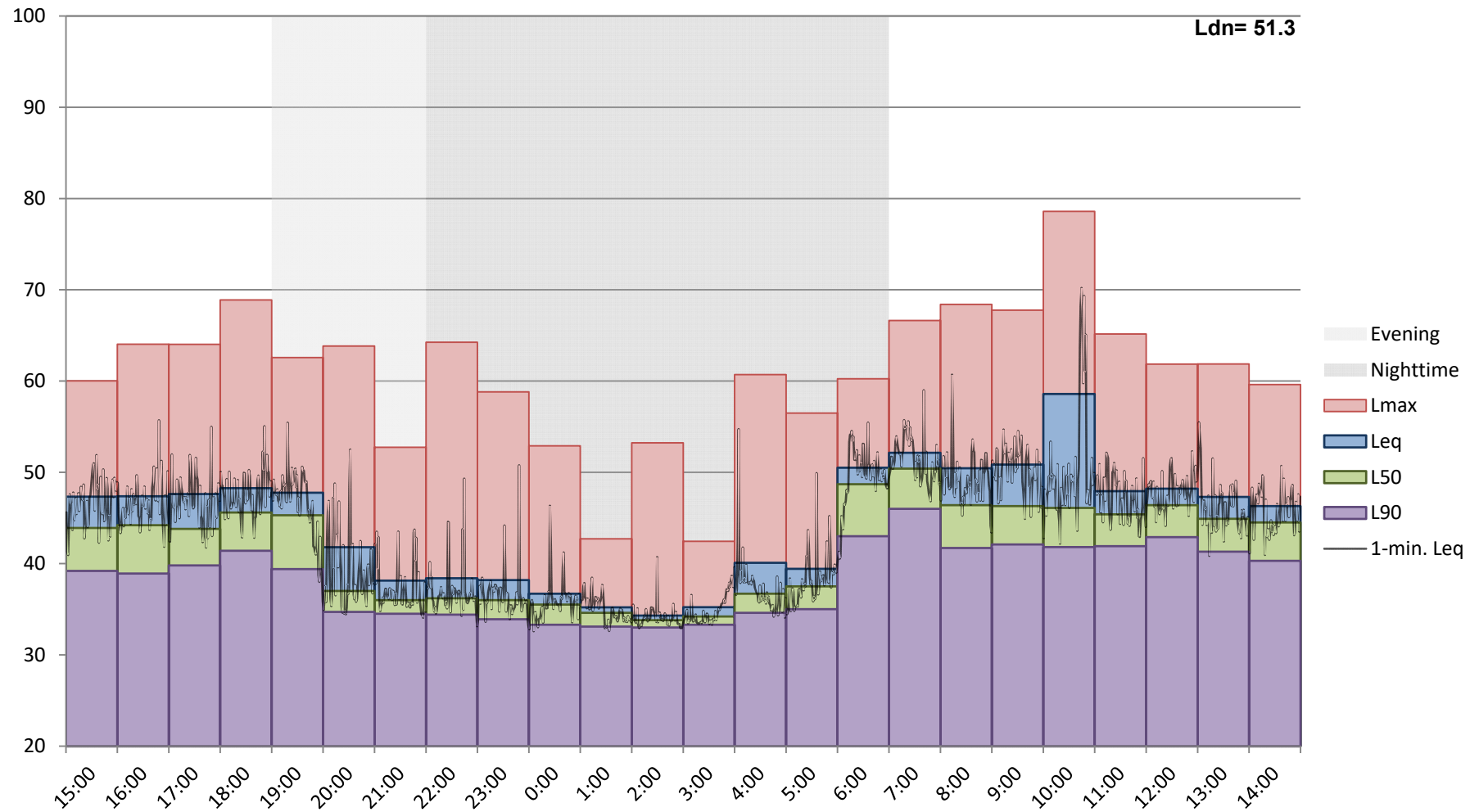
Attachment 2
Long-Term 24 Hour Continuous Noise Monitoring

Project: Sunridge Storage
Date: April 04, 2022 to April 05, 2022
Site: LT-01

Hour	Leq	Lmax	L50	L90		Lowermost Level			
15:00	47.3	60.0	43.9	39.2		Leq	Lmax	L50	L90
16:00	47.4	64.0	44.2	38.9	Daytime (7 a.m. - 7 p.m.)	38.1	52.7	36.0	34.5
17:00	47.6	64.0	43.8	39.8	Nighttime (10 p.m. - 7 a.m.)	34.3	42.4	33.8	33.0
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		Average Level			
22:00	38.4	64.2	36.2	34.4	Daytime (7 a.m. - 7 p.m.)	Leq	Lmax	L50	L90
23:00	38.2	58.8	36.0	33.9	Nighttime (10 p.m. - 7 a.m.)	50.4	64.4	44.4	40.4
0:00	36.7	52.9	35.5	33.3		42.5	54.6	37.0	34.8
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		Uppermost-Level			
4:00	40.1	60.7	36.7	34.6	Daytime (7 a.m. - 7 p.m.)	Leq	Lmax	L50	L90
5:00	39.4	56.5	37.5	35.0	Nighttime (10 p.m. - 7 a.m.)	58.6	78.6	50.4	46.0
6:00	50.5	60.2	48.7	43.0		50.5	64.2	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		Energy Distribution			
10:00	58.6	78.6	46.1	41.8		Daytime	91%		
11:00	47.9	65.2	45.4	41.9		Nighttime	9%		
12:00	48.2	61.9	46.4	42.9					
13:00	47.3	61.9	44.9	41.3		Calculated Ldn, dBA			
14:00	46.3	59.6	44.5	40.3		51.3			

Attachment 2

Sunridge Storage - LT-01
April 04, 2022 to April 05, 2022



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ATTACHMENT 1

ATTACHMENT 3

TESLA HISTOGRAM DATA

HOUSTON TEXAS SITE

ITEM 5.1.**ATTACHMENT 1****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
<u>Rainfall (inches)</u>	53	20
<u>Snowfall</u>	0	0
<u>Precipitation (days)</u>	90	63
<u>Sunny</u>	204	269
<u>Avg. July High</u>	93	93
<u>Avg. Jan. Low</u>	43	39
<u>Comfort Index (higher=better)</u>	6.6	7.2
<u>UV Index</u>	6.1	5.2

Source: NOAA, National Center for Environmental Data, <https://www.ncdc.noaa.gov/temp-and-precip/>

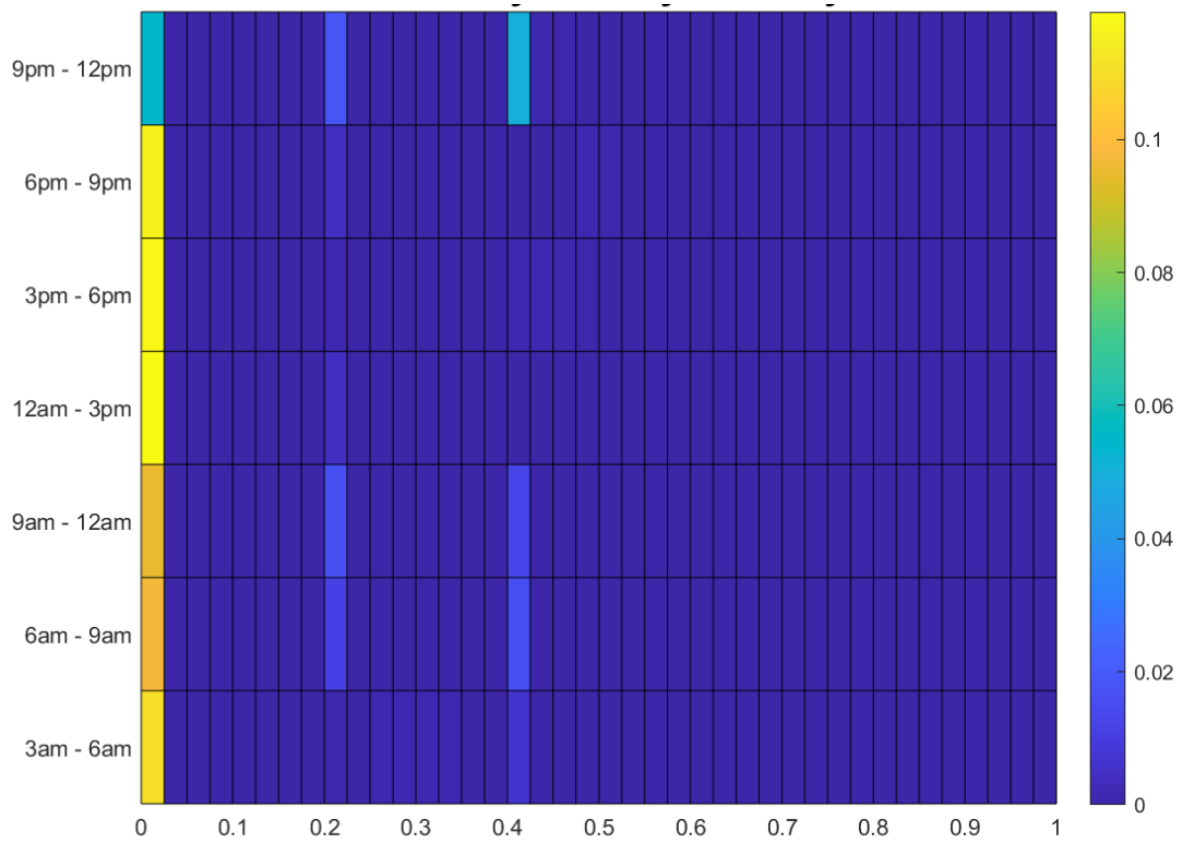
Number of days of sunshine are greater in Sacramento, compared to Houston. The average daily temperature in July is the same in Sacramento and Houston, which means the cooling fans would operate at the same levels in both locales during the hottest month. However, the comfort index is actually higher 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.

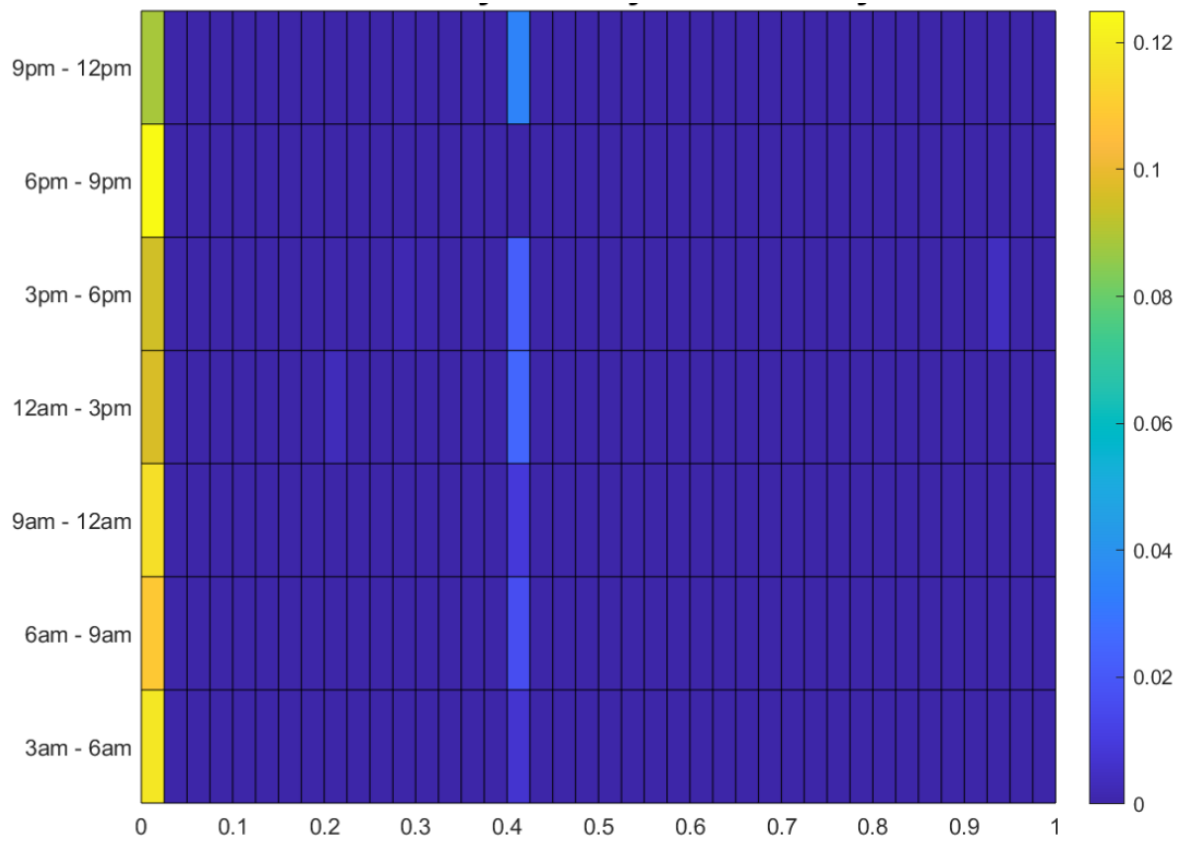
Consequently the provided representative daily use histograms for the cooling fan use in January and July at the Houston Texas site would be very reasonable as a reference for the Sacramento (Rancho Cordova) site operations. The use histograms from Houston are provided on the following pages.

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)

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ATTACHMENT 1

ATTACHMENT 4

TESLA MEGAPACK SOUND LEVEL DATA



Megapack Sound Power Level

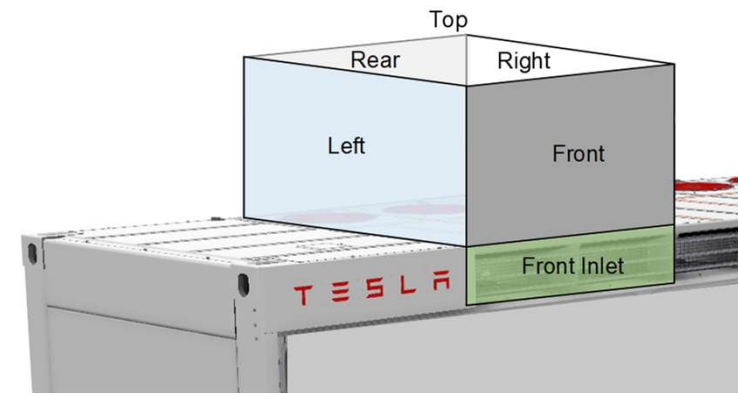
Tesla Energy – March 2020



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





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.

$$L_W = L_p + 10 \cdot \log \left(\frac{Q}{4\pi \cdot r^2} \right)$$



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



Appendix



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



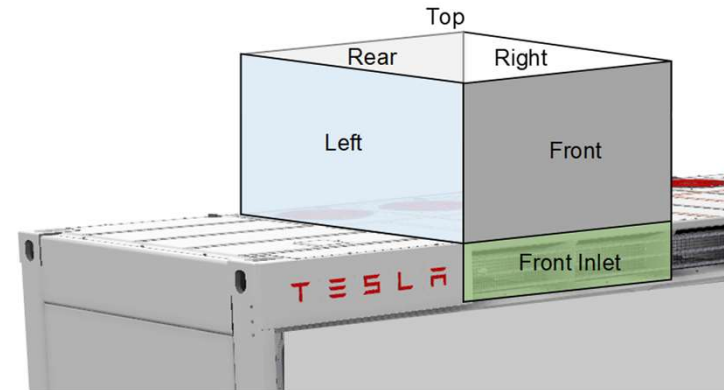
Sound Pressure Measurement Location at Reno

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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:

- A_{div} = attenuation due to *geometrical divergence* (i.e., pure distance), equating to $20 * \log(d/d_{ref})$; and where d is the horizontal distance between a source and a receiver position, while d_{ref} is the reference distance at which the sound source L_i is defined.
- A_{atm} = attenuation due to *atmospheric absorption*, which for 1,000 Hz (1 kHz) = $4.16 * d / 3280$ and is derived from Equation 5.7 in Noise & Vibration Control Engineering (Beranek and Ver, 1992).
- A_{gr} = attenuation due to *ground effects*, appearing as Equation 10 in ISO 9613-2 and can be expressed with the following Excel formula:

$$A_{gr} = \text{MAX}(0, 4.8 - [h_s + h_r] / d * [17 + 984 / d])$$

where h_s and 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 ($L_i - A_i$) 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

					Source	216
					Source Tag	S001
x	grid size (ft)				Source X-coordinate	693
y	10.5				Source Y-coordinate	756
					Source Z-coordinate	6
z	rcvr plane height (ft)				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)		Source Inventory with Model Grid Coordinate Locations and Sound Pressure Reference Levels														
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		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			

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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

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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

Sound Barrier (Noise Wall) Grid Coordinate Locations and Height

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															
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

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Vesper Energy

Juniper Creek Energy Storage Facility, Rancho Cordova, California

Noise Letter Report

May 9, 2023

ATTACHMENT 1

ATTACHMENT 6

CONSTRUCTION NOISE MODELING 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.

ITEM 5.1.

ATTACHMENT 1

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	Usage(%)	Equipment			
				Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	
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

Calculated (dBA)

Equipment	*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

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		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.			

ITEM 5.1.

ATTACHMENT 1

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/1/2022
Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)			Equipment		
		Daytime	Evening	Night			
Closest Residence South (275 ft)	Residential	55	50	45			
Description	Impact	Device	Usage(%)	Spec	Actual	Receptor	Estimated
				Lmax (dBA)	Lmax (dBA)	Distance (feet)	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)			Equipment		
		Daytime	Evening	Night			
Park Playground North (410 ft)	Residential	55	50	45			
Description	Impact	Device	Usage(%)	Spec	Actual	Receptor	Estimated
				Lmax (dBA)	Lmax (dBA)	Distance (feet)	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.

ITEM 5.1.

ATTACHMENT 1

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)
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	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.

ITEM 5.1.

ATTACHMENT 1

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				Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
		Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)		
Compressor (air)		No	40		77.7	270	0

Results

Calculated (dBA)		
Equipment	*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				Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
		Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)		
Compressor (air)		No	40		77.7	410	0

Results

Calculated (dBA)		
Equipment	*Lmax	Leq
Compressor (air)	59.4	55.4
Total	59.4	55.4
*Calculated Lmax is the Loudest value.		

Table 1
Comment Letters and Commenters

Comment Letter	Commenter	Date Received
<i>Agency</i>		
A1	Sacramento Metropolitan Fire District (Fire District)	February 23, 2023
A2	Pacific Gas & Electric (PG&E)	February 24, 2023
A3	Sacramento Municipal Utility District (SMUD)	March 3, 2023
A4	Central Valley Regional Water Quality Control Board (Central Valley RWQCB)	March 7, 2023
<i>Individuals</i>		
I1	Deborah Green	February 7, 2023
I2	William Buckans	February 8, 2023
I3	Nai Chien (Wayne) Wang	February 19, 2023
I4	Jennifer Stewart	March 3, 2023

Response to Comment Letter A1**Agency****Sacramento Metropolitan Fire District (Fire District)****February 23, 2023**

This comment letter states that the Project's site plan requires updates to address Fire District requirements related to fire access. The Project's site plan will be updated to address all Fire District requirements and submitted to the City of Rancho Cordova Planning Division as part of the project's conditional use permit application. The comment letter also discusses requirements that will need to be met for the Project to obtain building, fire, and final occupancy permits once the Project's conditional use permit and zone text amendment are approved. The comment letter does not raise any specific issues related to the adequacy of the IS/MND; therefore, no further response is required.

Response to Comment Letter A2

Agency
Pacific Gas & Electric (PG&E)
February 24, 2023

The comment letter states that PG&E has preliminarily reviewed the proposed plans for the Project and indicated the proposed improvements do not appear to directly interfere with existing PG&E facilities or easement rights. The comment letter also mentions PG&E may have additional reviews and that resubmittal of the Project's plans be completed if there are subsequent modifications to the Project design. The comment letter concludes with a reminder to contact Underground Service Alert (dial 811) prior to the commencement of ground disturbing activities. The comment letter does not raise any specific issues related to the adequacy of the IS/MND; therefore, no further response is required.

Response to Comment Letter A3

Agency
Sacramento Municipal Utility District (SMUD)
March 3, 2023

The comment letter states that the infrastructure modifications that will be required within SMUD's existing Cordova Substation to interconnect and accommodate Project need to be addressed and evaluated in the IS/MND. As such, the IS/MND and relevant technical appendices have been updated to discuss and evaluate the modifications pursuant to CEQA. The modifications will be entirely located within the substation's developed footprint and are expected to include completion of a bay within the Cordova Substation by adding the third breaker and a disconnect switch. The Project also entails modification of the existing SMUD Hedge-Cordova 230kV remedial action scheme (RAS) at the existing Hedge and Cordova substations. Modification of the RAS is limited to digital programming changes for grid protection and relaying. No ground disturbing activities are anticipated at the SMUD Hedge Substation. The modifications are described in Section 2.3 of the IS/MND and are evaluated throughout the CEQA topics of the IS Checklist in Section 3 of the IS/MND.

Response to Comment Letter A4**Agency****Central Valley Regional Water Quality Control Board (Central Valley RWQCB)****March 7, 2023**

The comment letter introduces the Project's regulatory setting as it relates to surface and groundwater quality and requests that the IS/MND evaluate potential impacts to both surface and groundwater quality. The commenter is referred to Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality, of the IS/MND which evaluate surface and groundwater quality. As discussed in the Project's Biological Resources Assessment (Appendix B), potentially jurisdictional aquatic features are located within the Project site along the outer limits of the site (0.066-acres of vernal pool habitat and 0.039-acres / 569.3 feet of stormwater control ditches) however, the Project is being designed to avoid impacts to potentially jurisdictional aquatic features. Should the Project impact potentially jurisdictional aquatic features, the Project will obtain permits from the appropriate regulatory agencies. The Project incorporates a 50-foot setback from the eastern boundary of the Project site which will avoid the vernal pools onsite.

The comment letter concludes by stating that projects that disturb one or more acre of soil are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The Project will disturb more than one acre of soil during construction, therefore, the Project will be required to obtain coverage under the (Construction General Permit) and prepare and implement a SWPPP.

Response to Comment Letter I1

Individual
Deborah Green
February 7, 2023

The commenter letter expresses concerns regarding a nearby recreational facility and agricultural lands. Regarding the nearby recreational facility, potential impacts to recreational facilities are evaluated under CEQA by assessing whether a project would increase the use of parks or other recreational facilities or require the construction or expansion of recreation facilities. The Project does not include a residential development and therefore would not induce population growth or increase the demand for or use of recreational facilities. The commenter is referred to Section 3.6, Recreation, of the IS/MND for further information. Regarding agricultural lands, the Project is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and therefore, would not result in a significant agricultural conversion impact. The Project site is also not zoned for agricultural use or under a Williamson Act contract. The commenter is referred to Section 3.2, Agricultural and Forestry Resources, of the IS/MND for further information.

The comment letter also expresses safety concerns regarding the proposed Project. The commenter is referred to Section 3.9, Hazards and Hazardous Materials, of the IS/MND for a discussion of hazard and safety impacts. In addition, the following information has been provided by the Project developer regarding the safety and benefits of a BESS:

Battery energy storage systems (BESS) fundamentally improve the way we generate, deliver, and consume electricity. BESS can, among other functions:

- Help provide back-up power during emergencies like blackouts from storms, equipment failures, or accidents. BESS strengthen grid resilience and can even reduce power outages.
- Lower costs for consumers by storing energy when the price of electricity is low and discharging that energy back onto the grid during peak demand.
- Balance power supply and demand instantaneously, which makes the electrical grid more resilient, efficient, and cleaner than ever before.

Energy storage facilities use established safety equipment and strategies to ensure that risks associated with the installation and operation of the battery systems are avoided and if required, appropriately mitigated. Energy storage is becoming an integral part of our electrical infrastructure. The ability to store energy and release it when needed is vital to delivering a secure, reliable electrical grid. More than 400 battery storage systems are deployed throughout the country to ensure a more stable grid, including 100 operational in California alone, according to the U.S. Energy Information Administration in January 2023.

Well-designed BESS are safe and reliable and incidents of thermal events associated with stationary energy storage are rare. Numerous nationally and internationally recognized standards and codes have been developed to inform safe manufacturing, construction, installation, and operation of energy storage systems. The Project will meet or exceed all related safety, health, and environmental standards to minimize potential risks. In addition, the Project will be subject to liability laws and regulations like any other business or energy facility.

To reduce the risk of fire and ensure the safety of the system, the Project will be equipped with automatic fire suppression equipment, and air conditioning or cooling systems to ensure it operates within an ideal temperature range. In addition, Vesper Energy will work with local fire departments and emergency responders to ensure they have adequate training to respond in the rare event of a fire or other safety issues.

We appreciate your questions about safety in your neighborhood and the community park. As mentioned above, BESS are operating safely across the country, including California. Many of these BESS use lithium-ion (Li-ion) batteries, a technology already commonly used in a wide range of consumer devices such as laptop computers, cellphones, toys, handheld power tools and electric vehicles. Used lithium-ion batteries are not considered hazardous waste by the U.S. Environmental Protection Agency (EPA). They are considered “universal waste,” and their responsible disposal and recycling process is addressed by the U.S. EPA’s universal waste regulations.

The Juniper Creek Energy Storage project will operate under established safety guidelines and regulations plus it will provide the community and surrounding electrical grid with several benefits.

Response to Comment Letter I2

Individual
William Buckans
February 8, 2023

The comment letter also expresses safety concerns regarding the proposed Project. The commenter is referred to Section 3.9, Hazards and Hazardous Materials, and Section 3.20, Wildfire, of the IS/MND for a discussion of hazard, safety, and fire impacts. Section 2.3, Project Characteristics, of the IS/MND also includes a description of the Project's safety measures such as being designed and installed in conform 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. 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 also include perimeter security fencing.

In addition, the following information has been provided by the Project developer regarding the safety and benefits of a BESS:

Battery energy storage systems (BESS) fundamentally improve the way we generate, deliver, and consume electricity. BESS can, among other functions:

- Help provide back-up power during emergencies like blackouts from storms, equipment failures, or accidents. BESS strengthen grid resilience and can even reduce power outages.
- Lower costs for consumers by storing energy when the price of electricity is low and discharging that energy back onto the grid during peak demand.
- Balance power supply and demand instantaneously, which makes the electrical grid more resilient, efficient, and cleaner than ever before.

Energy storage facilities use established safety equipment and strategies to ensure that risks associated with the installation and operation of the battery systems are avoided and if required, appropriately mitigated. Energy storage is becoming an integral part of our electrical infrastructure. The ability to store energy and release it when needed is vital to delivering a secure, reliable electrical grid. More than 400 battery storage systems are deployed throughout the country to ensure a more stable grid, including 100 operational in California alone, according to the U.S. Energy Information Administration in January 2023.

Well-designed BESS are safe and reliable and incidents of thermal events associated with stationary energy storage are rare. Numerous nationally and internationally recognized standards and codes have been developed to inform safe manufacturing, construction, installation, and operation of energy storage systems. The Project will meet or exceed all related safety, health, and environmental standards to minimize potential risks. In addition, the Project will be subject to liability laws and regulations like any other business or energy facility.

To reduce the risk of fire and ensure the safety of the system, the Project will be equipped with automatic fire suppression equipment, and air conditioning or cooling systems to ensure it operates within an ideal temperature range. In addition, Vesper Energy will work with local fire departments and emergency responders to ensure they have adequate training to respond in the rare event of a fire or other safety issues.

We appreciate your questions about safety in your neighborhood and the community park. As mentioned above, BESS are operating safely across the country, including California. Many of these BESS use lithium-ion (Li-ion) batteries, a technology already commonly used in a wide range of consumer devices such as laptop computers, cellphones, toys, handheld power tools and electric vehicles. Used lithium-ion batteries are not considered hazardous waste by the U.S. Environmental Protection Agency (EPA). They are considered “universal waste,” and their responsible disposal and recycling process is addressed by the U.S. EPA’s universal waste regulations.

The Juniper Creek Energy Storage project will operate under established safety guidelines and regulations plus it will provide the community and surrounding electrical grid with several benefits.

Response to Comment Letter I3

Individual
Nai Chen (Wayne) Wang
February 19, 2023

The comment letter expresses safety concerns regarding the proposed Project. The commenter is referred to Section 3.9, Hazards and Hazardous Materials, of the IS/MND for a discussion of hazard and safety impacts as well as Section 3.4, Biological Resources, of the IS/MND for a discussion of impacts to special status species and habitat. In addition, the following information has been provided by the Project developer regarding the safety and benefits of a BESS:

Battery energy storage systems (BESS) fundamentally improve the way we generate, deliver, and consume electricity. BESS can, among other functions:

- Help provide back-up power during emergencies like blackouts from storms, equipment failures, or accidents. BESS strengthen grid resilience and can even reduce power outages.
- Lower costs for consumers by storing energy when the price of electricity is low and discharging that energy back onto the grid during peak demand.
- Balance power supply and demand instantaneously, which makes the electrical grid more resilient, efficient, and cleaner than ever before.

Energy storage facilities use established safety equipment and strategies to ensure that risks associated with the installation and operation of the battery systems are avoided and if required, appropriately mitigated. Energy storage is becoming an integral part of our electrical infrastructure. The ability to store energy and release it when needed is vital to delivering a secure, reliable electrical grid. More than 400 battery storage systems are deployed throughout the country to ensure a more stable grid, including 100 operational in California alone, according to the U.S. Energy Information Administration in January 2023.

Well-designed BESS are safe and reliable and incidents of thermal events associated with stationary energy storage are rare. Numerous nationally and internationally recognized standards and codes have been developed to inform safe manufacturing, construction, installation, and operation of energy storage systems. The Project will meet or exceed all related safety, health, and environmental standards to minimize potential risks. In addition, the Project will be subject to liability laws and regulations like any other business or energy facility.

To reduce the risk of fire and ensure the safety of the system, the Project will be equipped with automatic fire suppression equipment, and air conditioning or cooling systems to ensure it operates within an ideal temperature range. In addition, Vesper Energy will work with local fire departments and emergency responders to ensure they have adequate training to respond in the rare event of a fire or other safety issues.

We appreciate your questions about safety in your neighborhood and the community park. As mentioned above, BESS are operating safely across the country, including California. Many of these BESS use lithium-ion (Li-ion) batteries, a technology already commonly used in a wide range of consumer devices such as laptop computers, cellphones, toys, handheld power tools and electric vehicles. Used lithium-ion batteries are not considered hazardous waste by the U.S. Environmental Protection Agency (EPA). They are considered “universal waste,” and their responsible disposal and recycling process is addressed by the U.S. EPA’s universal waste regulations.

The Juniper Creek Energy Storage project will operate under established safety guidelines and regulations plus it will provide the community and surrounding electrical grid with several benefits.

Response to Comment Letter I4

Individual
Jennifer Stewart
March 3, 2023

This comment asks if a report has been prepared that estimates noise levels for the cooling system fans associated with the BESS. The commenter is referred to Section 3.13, Noise, of the IS/MND and the Noise and Vibration Assessment Letter Report prepared for the Project (Appendix E of the IS/MND), which studied the potential for sound impact. The report determined that operational noise levels created by the Project would be within the City's daytime and nighttime noise standards at the nearby receptors. 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. The Project also proposes a 12-foot concrete wall and landscaping along the western boundary of the project site to reduce potential noise and visual impacts. While the project would result in less than significant operational noise impacts, it should be noted that the concrete wall and landscaping will further obscure noise.

CITY OF RANCHO CORDOVA

PLANNING COMMISSION RESOLUTION NO. X-2023

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RANCHO CORDOVA,
STATE OF CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL FIND THE
MITIGATED NEGATIVE DECLARATION WITH MITIGATION MEASURES TO BE
ADEQUATE, ADOPT AN ORDINANCE AMENDING TITLE 23 AND ADOPT A RESOLUTION
APPROVING A CONDITIONAL USE PERMIT FOR JUNIPER CREEK ENERGY STORAGE
PROJECT NO. PLND-0422-0034**

WHEREAS, Sunridge Energy, LLC, (hereinafter referred to as Applicant) filed an application with the City of Rancho Cordova for a Zoning Text Amendment and a Conditional Use Permit for Juniper Creek Energy Storage; and

WHEREAS, the proposed project is located on real property in the incorporated portions of the City more particularly described as APN: 067-0780-011; and

WHEREAS, the project includes a Zoning Text Amendment to require a Conditional Use Permit for battery energy storage in a Limited Commercial (LC) zone within the Sunridge Specific Plan, as well as a Conditional Use Permit to operate a 200-megawatt battery energy storage system project; and

WHEREAS, an Initial Study/Mitigated Negative Declaration was prepared and circulated for the project in accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.); and

WHEREAS, the Planning Commission of the City of Rancho Cordova conducted a properly noticed public hearing pursuant to Government Code section 65090 and has duly considered all written and verbal testimony presented during the hearing.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Rancho Cordova finds that project has been analyzed in accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.) based upon the following finding:

- A. **Finding:** The project has been analyzed in accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.),

Evidence: In accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.), a Draft Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and circulated for the required 30-day review period, from February 3, 2023 and ending March 6, 2023. Areas identified in the Draft IS/MND that required mitigation measures to avoid significant effects on the environment were Geology and Soils and Mandatory Findings of Significance. A mitigation measure has been placed upon the project to ensure that the appropriate measures are taken in the event that any archaeological resources are exposed during construction. While none of

these features were identified on the site or are known to be on the site, the mitigation measure provides extra assurance that all appropriate measures will be taken if any are discovered.

During the public review period, eight comment letters and/or emails on the Draft IS/MND were received from outside agencies and interested parties. As a result of comments received on the Draft IS/MND, minor revisions were made to the Draft IS/MND, however there were no substantial revisions that would require recirculation of the document. The revisions proposed in the Final MND do not meet the criteria for recirculation provided in Section 15073.5(c) of the CEQA Guidelines, nor were project revisions required based upon the comments received.

AND IT BE FURTHER RESOLVED, that the Planning Commission of the City of Rancho Cordova hereby recommends that the City Council adopt an Ordinance approving the Zoning Text Amendment and adopt a Resolution approving a Conditional Use Permit based upon the following findings and evidence:

Zoning Text Amendment subject to the Findings required by Title 23 Zoning, Section 23.146.070 and the proposed amendments (Exhibit A).

- A. **The proposed amendment is consistent with the General Plan.** The attached Municipal Code Amendments ("Amendment") for Title 23 as it relates to Battery Energy Storage System (BESS) facilities are consistent with the General Plan. The amendments would make it possible for an entity to obtain a Conditional Use Permit for a BESS facility, which would include the ability to store energy in order to supply electrical energy at a future date in time.

General Plan Element VIII Infrastructure, Services, and Finance states that the goals, policies and actions of the Element is to set forth methods for ensuring that the City provides the highest service levels possible, which includes reducing incidences of service interruption and improving the quality and sustainability of services. Goal ISF.2 mentions the desire to ensure the development of quality infrastructure to meet community needs at the time they are needed. Policy ISF.2.1.1 addresses the need of public infrastructure that meets the long-term needs of residents. And ensures infrastructure is available at the time such facilities are needed. The ability to install BESS facilities within the City will help to store necessary energy for high demand times, and future needs of the growing City.

- B. **The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the City.** The attached amendments would permit the operation of a BESS facility on property within the Sunridge Specific Plan with a designation of Limited Commercial, upon issuance of a Conditional Use Permit. The full scope of the project including the safety measures in place for this type of use have been evaluated with the Conditional Use Permit and as part of the environmental document. Energy storage facilities use established safety equipment and strategies to ensure that risks associated with the installation and operation of the battery systems are avoided and if required, appropriately mitigated. As designed, the facility is safe and reliable and incidents of thermal events associated with stationary energy storage are rare. Numerous nationally and internationally recognized standards and codes have been developed to inform safe manufacturing, construction, installation, and operation of energy storage systems. The Project will meet or exceed all related safety, health, and environmental standards to minimize potential risks. In addition, Sacramento Metro Fire District has

adequately conditioned the project to ensure that the project is compliant with all CA Fire Code, as well as the National Fire Protection Association codes and standards related to the use of BESS facilities. None of these proposed amendments will be detrimental to the public interest, health, safety, convenience, or welfare of the City.

- C. **The proposed amendments are internally consistent with other applicable provisions in this Zoning Code.** The Amendments have been reviewed for consistency with the entirety of the Municipal Code and is consistent with other applicable provisions of the Municipal Code.

Conditional Use Permit subject to the Findings required by Title 23, Zoning, Section 23.134.070 and the Project Plans (Exhibit B), Conditions of Approval (Exhibit C) and Mitigation Monitoring and Reporting Program (Exhibit D).

- A. **The site size, dimensions, location, topography, and access are adequate for the needs of the proposed use, considering the proposed building mass, parking, traffic, noise, vibration, exhaust/ emissions, light, glare, erosion, odor, dust, visibility, safety, and aesthetic considerations.** The project, as designed would not create a visual impact on the overall neighborhood. It is immediately adjacent to a SMUD Substation and a power line corridor. The nearest residential property is approximately 250 feet to the west of the project site. The project site is of a sufficient size to adequately accommodate the necessary facilities needed to operate a BEES facility, while meeting the standards of the Rancho Cordova Municipal Code. The project will not generate any erosion, odor, or dust as part of the operation of a BEES facility. During construction, there may be noise, dust, ground vibration and additional movement in the area, but these are temporary in nature and not part of the long term operation of the project. The project is conditioned to meet the Zoning Code standards as it relates to lighting and not create any off site glare. There are no permanent buildings on the site beyond the storage cabinets, which will be screened from view by landscaping and a 12-foot wall. The site is unmanned, with minimal weekly traffic that would be generate by routine maintenance at the site.
- B. **The negative impacts of the proposed use on adjacent properties and on the public can be mitigated through application of other code standards or other reasonable conditions of approval.** As mentioned in the finding above, the project, as designed would not create a visual impact on the overall neighborhood. It is immediately adjacent to a SMUD Substation and a power line corridor. The nearest residential property is approximately 250 feet to the west of the project site. The project site is of a sufficient size to adequately accommodate the necessary facilities needed to operate a BEES facility, while meeting the standards of the Rancho Cordova Municipal Code. The project will not generate any erosion, odor, or dust as part of the operation of a BEES facility. During construction, there may be noise, dust, ground vibration and additional movement in the area, but these are temporary in nature and not part of the long term operation of the project. The project is conditioned to meet the Zoning Code standards as it relates to lighting and not create any off site glare. There are no permanent buildings on the site beyond the storage cabinets, which will be screened from view by landscaping and a 12-foot wall. The site is unmanned, with minimal weekly traffic that would be generate by routine maintenance at the site.
- C. **All required public facilities have adequate capacity to serve the proposal.** The proposed project utilizes very little public utilities such as water and would not generate a

need for the use of any public facilities such as parks or schools. The site would be unmanned with minimal weekly visits to the site for routine maintenance. The operation of a BESS facility does not generate any residential units and therefore would not increase the use of any nearby facilities such as parks or schools.

D. The project meets the requirements of the zoning code including development standards, design guidelines, and special use provisions. The project, as proposed meet the requirements of the zoning code, including development standards related to setbacks, screening of the site and providing landscaping and lighting for safety. The project as designed meets the minimum setback requirements from the roadway which is 25 feet. A 12-foot wall with the incorporation of landscaping sufficiently meets the screening requirement of the site per Section 23.907.030 E.2.b. of the Zoning Code. Conditions have been placed upon the project for compliance with various standards such as lighting, landscaping that meets the requirements of size, spacing and tree species.

PASSED AND ADOPTED by the Planning Commission of the City of Rancho Cordova on the 28th day of June 2023 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Leroy Tripette, Chair

ATTEST:

Kelly Whitman
Planning Commission Clerk

Note: Only those sections and/or subsections that are proposed to be amended within the indicated Chapter are included below. In some instances, the entirety of the Chapter or Section is included for context, even if amendments are not proposed. Amendments are reflected in a track change format. All other sections and/or subsections within the indicated Chapter that are not included below are not proposed to change and shall remain intact.

Chapter 23.907

UTILITY, TRANSPORTATION, AND COMMUNICATION USES

23.907.010 Purpose and applicability.

A. Purpose. The purpose of this chapter is to establish site planning, development, and/or operating standards for utility, transportation, and communication uses, including telecommunication facilities and utility facilities and infrastructure and battery energy storage system (BESS) facilities. It is the city's intent, in establishing these standards, to mitigate the potential adverse impacts of these uses and activities on adjacent and surrounding land uses by regulating the size, scale, and location of these uses, as well as requiring additional setbacks, landscaping, and other buffering between the subject use and surrounding property.

B. Applicability. The regulations and standards contained in this chapter shall apply only to telecommunication facilities, BESS facilities, and utility facilities and infrastructure as expressly identified in the corresponding sections and shall be in addition to any other development standards and regulations contained elsewhere within this zoning code (e.g., lighting, landscaping, parking). These uses may only be located in those zoning districts as described in, and shall only be authorized in concert with the permit requirements of, Article 3 of this title (Zoning Districts, Allowable Uses, and General Development Standards) or Article 10 of this title (Special Purpose Zones). [Ord. 11-2018 § 3 (Exh. A); Ord. 4-2017 § 3 (Exh. B); Ord. 12-2011 § 3 (Exh. A); Ord. 27-2008 § 1 (Exh. A § 5.3.010)].

23.907.030 Utility facilities and infrastructure.

A. Purpose and Applicability. The regulations contained in this section shall apply to utility facilities and infrastructure, as well as BESS facilities, as defined in RCMC 23.1104.040 (Land use definitions). The establishment of new utility facilities and infrastructure and BESS facilities shall be consistent with the allowed use provisions of Article 3 of this title (Zoning Districts, Allowable Uses, and General Development Standards) and the standards contained within this section, as well as other development standards as required in the underlying zoning district. Where the standards of the underlying district conflict with the standards herein, these standards shall apply. The intent of these provisions is to minimize the visual and physical impacts of the use on surrounding property by balancing the need for the facilities with a desire to minimize the visual impact.

B. Permit Requirements and Exemptions. To the extent allowed by state or federal law, the uses regulated by this section shall be subject to the allowed use and permit requirements of Article 3 of this title (Zoning Districts, Allowable Uses, and General Development Standards) and, where applicable, Article 10 of this title (Special Purpose Zones). In addition, such facilities may be subject to design review as required by Chapter 23.140 RCMC (Minor Design Review) or Chapter 23.141 RCMC (Major Design Review) and allowed by state and federal law.

C. Location Requirements for Transmission Lines and Pipelines.

1. General Location. Generally, transmission lines and pipelines shall be located within public rights-of-way (with approval of the public works director) or within dedicated easements for transmission lines (e.g., public utility easement).

2. Electrical Transmission Lines. Electrical transmission lines of 100,000 volts or greater capacity may be located in any zone and shall be located in easements or rights-of-way which permit access for maintenance with minimal disruption to surrounding properties. Preference shall be given to the location of transmission

lines in the rank order specified below; every reasonable effort shall be exerted to avoid established residential areas. In the event SMUD determines that it has no alternative but to route a 100,000 volt or greater capacity transmission line through an established residential area, such lines shall be installed underground except when SMUD can demonstrate that it is not feasible to do so. "Feasible" shall be as defined in California Government Code Section 53096(c).

- a. Within existing SMUD transmission rights-of-way or those anticipated for other projects proposed subject to this code.
- b. Adjacent to railroads or adopted freeway routes.
- c. Along or adjacent to major arterial streets where existing or planned uses are commercial or industrial.
- d. Adjacent to or through existing or planned commercial, industrial, or agricultural uses.
- e. Along arterial streets where residential uses designated in an adopted plan are RD-20 or greater density.
- f. Through areas where land uses in an adopted plan are predominantly commercial, but include residential uses.
- g. Through residential areas, including side and rear yards, irrespective of density.

D. Location Requirements for Fixed-Base Structures and Facilities and BESS facilities. In siting fixed-base structures and facilities and BESS facilities, the city shall place preference on the locations listed below in the order listed. In any case, siting fixed-base facilities or BESS facilities within residential zoning districts, particularly those intended for multifamily housing, shall be a last resort. All new subdivisions and land planning (e.g., Specific Plans) shall include provisions for siting fixed-base facilities in dedicated, reserved locations that are identified with assistance from the utility service provider.

1. Sites zoned community service (CS), transportation corridor (T), or parks and open space (POS);
2. Areas within Specific Plans or special planning areas specifically identified for utility facilities and infrastructure uses or BESS facilities;
3. Sites zoned heavy industrial (M-2);
4. Sites zoned any limited commercial or mixed-use zoning district, provided the facility is not located at the intersection of two major streets;
5. Any other portion of a limited commercial or mixed-use zoning district not otherwise described above; or
6. Within a residential or agricultural zoning district.

E. Development Requirements for Fixed-Base Structures and Facilities.

1. Communication Substations. Communication substations shall be entirely located within an enclosed building, the design of which shall be consistent with the standards of the underlying zoning district and the citywide design guidelines, the intent being to integrate the design of the facility into the area in which it is located.
2. Electrical Substations and BESS Facilities.
 - a. Overhead electrical transmission lines of 100,000 volts or greater capacity shall be installed in such a manner as to minimize adverse visual impacts. When feasible, SMUD shall relocate and combine existing overhead transmission poles and lines with new installations.

b. Substations and BESS Facilities shall be designed and constructed in such a manner as to minimize off-site visual and noise impacts. Planted or landscaped setbacks of at least 25 feet shall be provided on all property lines.

3. Potable Water Storage Facility. Potable water storage facilities shall observe all development standards of the underlying zoning district. Additionally, such facilities shall be screened consistent with the provisions of Chapter 23.731 RCMC (Fences, Walls, and Screening).

4. Treatment Plant. Treatment plants shall observe all development standards of the underlying zoning district, except that any treatment ponds or other structures that may emit an odor shall be located a minimum of 200 feet from a residential zoning district or residential use. The use shall also provide landscaping along the perimeter of the use, including a minimum 25-foot-wide landscape area and evergreen trees planted 30 feet on center. [Ord. 11-2018 § 3 (Exh. A); Ord. 4-2017 § 3 (Exh. B); Ord. 13-2013 § 4 (Exh. B); Ord. 12-2011 § 3 (Exh. A); Ord. 27-2008 § 1 (Exh. A § 5.3.030)].

ITEM 5.1.

Rancho Cordova Municipal Code
Chapter 23.1000 SPECIAL PURPOSE ZONES

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Chapter 23.1000**SPECIAL PURPOSE ZONES**

Sections:

- 23.1000.010 Purpose.
- 23.1000.020 Specific Plan zoning districts.
- 23.1000.030 Special planning area zoning districts.

23.1000.010 Purpose.

The purpose of this chapter is to identify and provide reference to all special purpose zones within the city. Special purpose zones provide unique development regulations to subject property than may otherwise be granted through the application of any base zoning district provided by this title. Currently there are two special purpose zones in the city:

- A. Specific Plan zones;
- B. Special planning area zones. [Ord. 6-2011 § 3 (Exh. A)].

23.1000.020 Specific Plan zoning districts.

A. Purpose of the Specific Plan Zoning District. The purpose of the Specific Plan zoning district is to designate unique planning areas within the city for which the city council has adopted or requires adoption of a separate planning document (a Specific Plan) consistent with the General Plan and state law. The contents, requirements, and adoption and amendment procedures for Specific Plans are listed in Chapter 23.152 RCMC (Specific Plans).

B. Designation. Specific Plan zoning districts shall be delineated on the zoning map in a manner similar to that of any other zoning district except that each Specific Plan-zoned area shall also bear a name, number, symbol, or other delineation, as determined by the planning director, which distinguishes it from other Specific Plan zones, base zoning districts, or overlay zones. The assignment of the Specific Plan zone designation serves to provide a reference to the corresponding Specific Plan zoning document adopted by ordinance of the city council. Applicable zoning regulations and standards applicable to the land area are provided in the Specific Plan zones document, as adopted by reference in this title.

C. Specific Plans Adopted by Reference. The following Specific Plans have been adopted as part of this title by reference and are so designated on the zoning map of the city:

1. Mather Specific Plan (adopted 1997 by Sacramento County);
2. Sunridge Specific Plan (adopted July 17, 2002, by Sacramento County);
3. Folsom Boulevard Specific Plan (first adopted November 6, 2006, by Ordinance No. 57-2006; amended July 7, 2008, by Ordinance No. 13-2008).

D. Allowed Uses. Allowed uses within the Specific Plan area are those listed uses in the adopted Specific Plan document. A Specific Plan may reference the allowed use provisions of the concurrent base zoning district contained in this title; however, in the event that there are conflicts between the provisions of the Specific Plan and this title, the Specific Plan shall prevail. BESS facilities, as defined by RCMC 23.1104.040 (Land Use Definitions), are an allowed use for those parcels identified as Sunridge Specific Plan Limited Commercial (LC) zoning district upon issuance of a conditional use permit as required by RCMC Chapter 23.134 (Conditional Use Permits).

E. Development Standards. Development standards within the Specific Plan area are those standards listed in the adopted Specific Plan. A Specific Plan may reference the development standards of this title, in which case the standards of this title shall apply. Where a Specific Plan is silent regarding a city-wide standard (e.g., sign regulations), the city standard shall apply. Where a Specific Plan establishes unique standards that are in conflict with the standards of this title, the Specific Plan standards shall prevail. BESS Facilities, as defined in RCMC 23.1104.040 (Land Use Definitions), in the Sunridge Specific Plan Limited Commercial (LC) zoning district are

ITEM 5.1.**Exhibit A to the Resolution**

Rancho Cordova Municipal Code
Chapter 23.1000 SPECIAL PURPOSE ZONES

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subject to the standards in RCMC 23.907.030 (Utility facility and infrastructure) and those standards in RCMC 23.316.040 (Development standards for general commercial and industrial zones) applicable to the General Commercial (GC) district. [Ord. 6-2011 § 3 (Exh. A)].

ITEM 5.1.

Rancho Cordova Municipal Code
Chapter 23.1104 GENERAL DEFINITIONS

ATTACHMENT 4 Exhibit A to the Resolution

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Chapter 23.1104

GENERAL DEFINITIONS

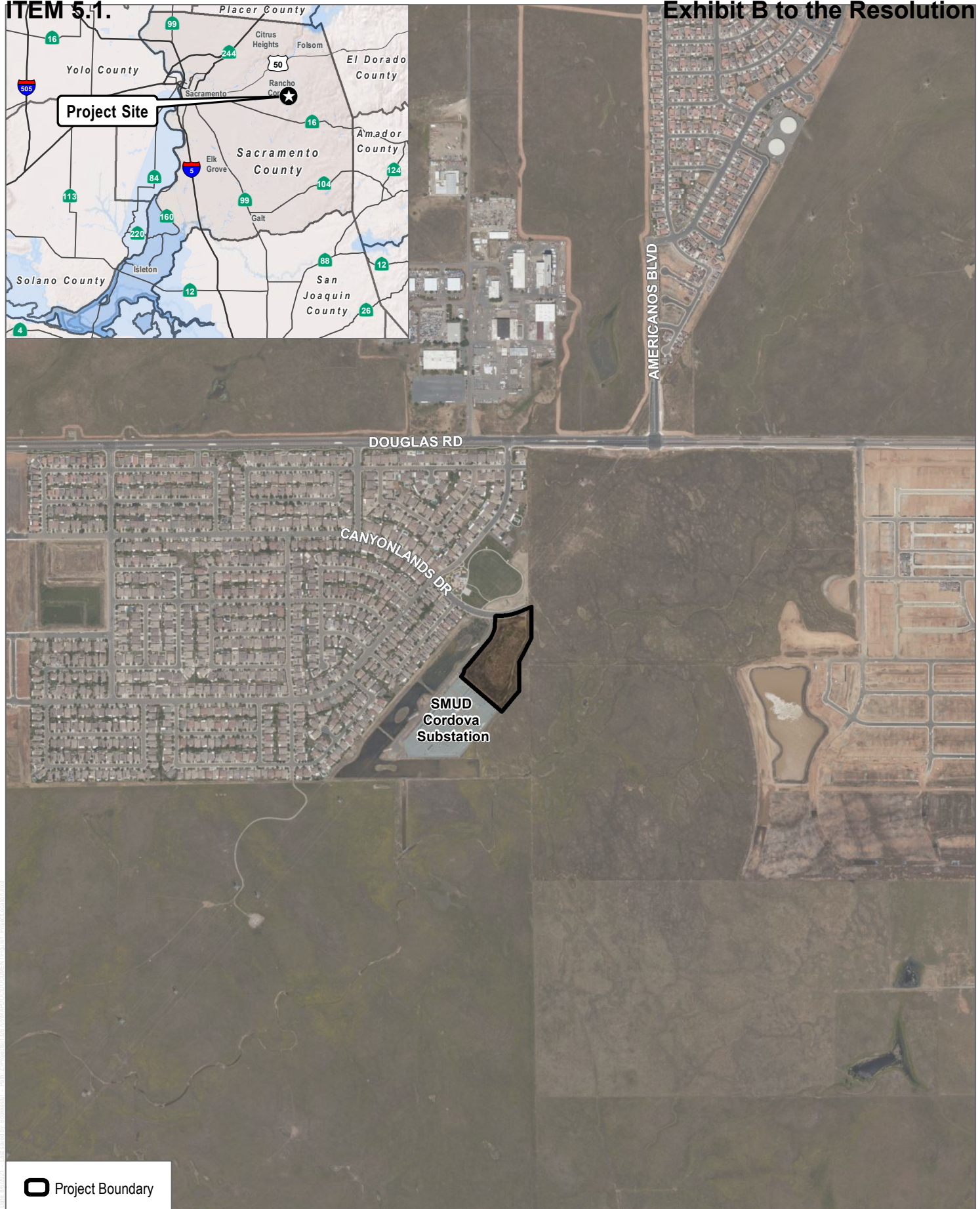
23.1104.010 Purpose.

The purpose of this chapter is to provide all definitions used throughout this title. Definitions are organized alphabetically. [Ord. 4-2017 § 3 (Exh. B); Ord. 12-2011 § 3 (Exh. A); Ord. 27-2008 § 1 (Exh. A § 10.2.010)].

23.1104.040 Land use definitions.

“Battery Energy Storage System (BESS) facility” means a system consisting of electrochemical storage batteries, battery chargers, controls, power condition systems and associated electrical equipment, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle or behind-the-meter battery energy storage systems.

ITEM 5.1.



SOURCE: Bing Maps 2020; Open Street Maps 2020

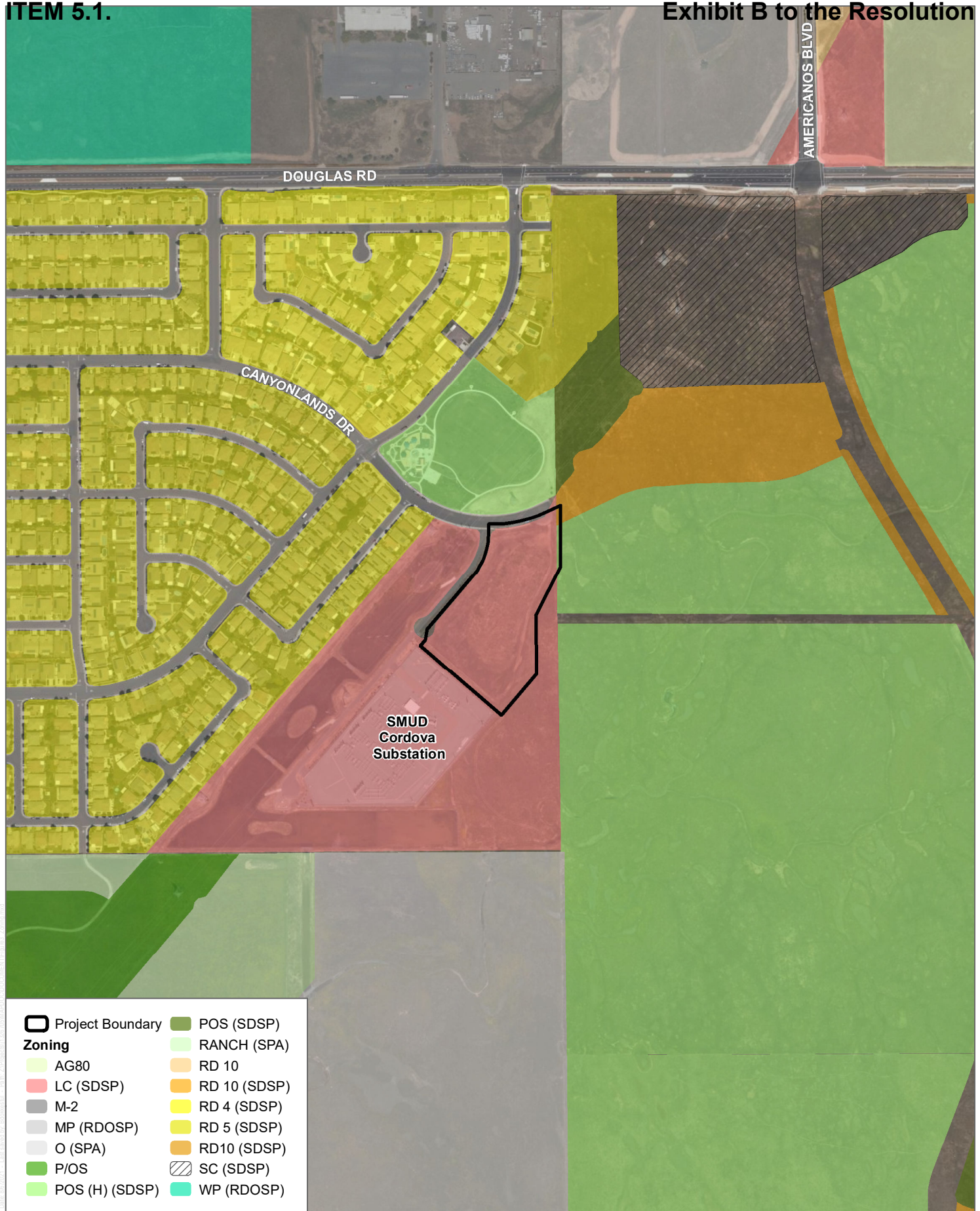
FIGURE 1

Project Location

Sunridge Energy Storage Project

ITEM 5.1.

Exhibit B to the Resolution



SOURCE: Bing Maps (Accessed 2021), Sacramento County 2021

FIGURE 2

Zoning

Sunridge Energy Storage Project

PREPARED FOR:

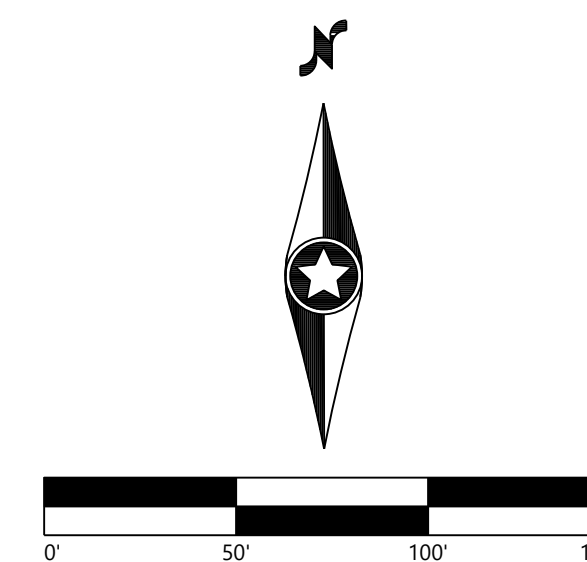


125 E. JOHN CARPENTER FREEWAY, SUITE 525
IRVING, TEXAS 75062

REVISIONS:

#	DATE	COMMENT
G	04/13/2022	ISSUED FOR REVIEW

#	DATE	COMMENT
G	04/13/2022	ISSUED FOR REVIEW



Sunridge Solar Storage Project

Sacramento County, California

Preliminary Overall Site
Plan - 3.6 MW Tesla
Megapack - Buffer Avoided

NOT FOR CONSTRUCTION

DATE: 04/13/2022

SHEET: EXH-G

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

Westwood

Phone (720) 531-8350 10170 Church Ranch Way, Suite #100
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com

Westwood Professional Services, Inc.

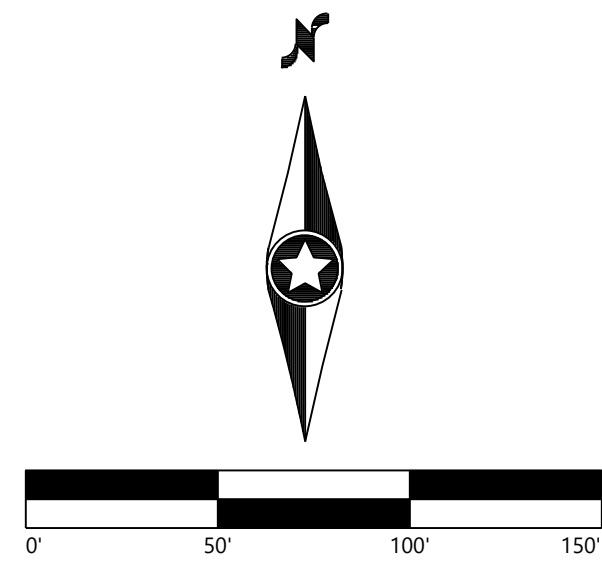
PREPARED FOR:



125 E. JOHN CARPENTER FREEWAY, SUITE 525
IRVING, TEXAS 75062

REVISIONS:

#	DATE	COMMENT



Sunridge Solar Storage Project

Sacramento County, California

Preliminary Landscape
Screening Plan

NOT FOR CONSTRUCTION

DATE: 04/29/2022

SHEET: L.100

SOLAR ORDINANCE - SCREENING REQUIREMENTS

23.716.050 LANDSCAPE DESIGN AND PLANTING REQUIREMENTS

B. PLANT TYPE. LANDSCAPE PLANTING SHALL EMPHASIZE DROUGHT-TOLERANT AND NATIVE SPECIES (ESPECIALLY ALONG NATURAL, OPEN SPACE AREAS), SHALL COMPLEMENT THE ARCHITECTURAL DESIGN OF STRUCTURES ON THE SITE, AND SHALL BE SUITABLE FOR THE SOIL AND CLIMATIC CONDITIONS SPECIFIC TO THE SITE.

1. PLANTING LAYOUT AND PLANT DIVERSITY. PLANT SELECTION SHALL VARY IN TYPE AND PLANTING PATTERN. INFORMAL PLANTING PATTERNS ARE PREFERRED OVER UNIFORM AND ENTIRELY SYMMETRICAL PLANTING PATTERNS. USE OF FLOWERING TREES AND COLORFUL PLANTINGS IS ENCOURAGED IN CONJUNCTION WITH EVERGREEN SPECIES. GROUPINGS OF SHRUBS SHALL CONTAIN MULTIPLE PLANT TYPES, INTERSPERSED WITH VARYING HEIGHTS AND BLOOMING SEASONS FOR YEAR-ROUND INTEREST.

2. STREET AND PARKING LOT TREES. STREET AND PARKING LOT TREES SHALL BE SELECTED FROM THE CITY'S ADOPTED MASTER LIST OF STREET TREES AND PARKING LOT TREES. A MINIMUM OF 30 PERCENT OF THE STREET TREES AND PARKING LOT TREES, RESPECTIVELY, SHALL BE AN EVERGREEN SPECIES.

3. TREES PLANTED WITHIN 10 FEET OF A STREET, SIDEWALK, PAVED TRAIL, OR WALKWAY SHALL BE A DEEP-ROOTED SPECIES OR SHALL BE SEPARATED FROM HARDSCAPES BY A ROOT BARRIER TO PREVENT PHYSICAL DAMAGE TO PUBLIC IMPROVEMENTS.

C. PLANTING SIZE, SPACING, AND PLANTER WIDTHS. IN ORDER TO ACHIEVE AN IMMEDIATE EFFECT OF A LANDSCAPE INSTALLATION AND TO ALLOW SUSTAINED GROWTH OF PLANTING MATERIALS, MINIMUM PLANT MATERIAL SIZES, PLANT SPACING, AND MINIMUM PLANTER WIDTHS (INSIDE MEASUREMENT) ARE AS FOLLOWS:

1. TREES. THE MINIMUM PLANTING SIZE FOR TREES SHALL BE 15-GALLON, WITH 25 PERCENT OF ALL TREES ON A PROJECT SITE PLANTED AT A MINIMUM 24-INCH-BOX SIZE. FOR COMMERCIAL, OFFICE, COMMUNITY/CIVIC, AND INDUSTRIAL DEVELOPMENT, TREE SPACING WITHIN THE PERIMETER PLANTERS ALONG STREETS AND ABUTTING RESIDENTIAL PROPERTY SHALL BE PLANTED NO FARTHER APART THAN THE MATURE DIAMETER OF THE PROPOSED SPECIES. MINIMUM PLANTER WIDTHS FOR TREES SHALL BE BETWEEN FIVE AND 10 FEET, CONSISTENT WITH THE CITY-ADOPTED MASTER TREE LIST FOR STREET TREES AND PARKING LOT TREES.

2. SHRUBS. SHRUB PLANTING SHALL BE A MINIMUM FIVE-GALLON SIZE, THE MINIMUM PLANTER WIDTH FOR SHRUBS IS FOUR FEET.

3. GROUND COVER. PLANTS USED FOR MASS PLANTING MAY BE GROWN IN FLATS OF UP TO 64 PLANTS OR IN INDIVIDUAL ONE-GALLON CONTAINERS. ROOTED CUTTINGS FROM FLATS SHALL BE PLANTED NO FARTHER APART THAN 12 INCHES ON CENTER, AND CONTAINERIZED WOODY, SHRUB GROUND COVER PLANTINGS SHALL BE PLANTED NO FARTHER APART THAN THREE FEET ON CENTER IN ORDER TO ACHIEVE FULL COVERAGE WITHIN ONE YEAR. MINIMUM PLANTER WIDTH FOR GROUND COVER IS TWO FEET, WITH THE EXCEPTION OF SOD, WHICH REQUIRES A MINIMUM PLANTER WIDTH OF SIX FEET.

4. ADDITIONAL SPACING PROVISIONS. TREE SPACING SHALL ENSURE UNOBSTRUCTED ACCESS FOR VEHICLES AND PEDESTRIANS AND PROVIDE CLEAR VISION AT INTERSECTIONS. SPECIFICALLY, TREE PLANTING SHALL COMPLY WITH THE FOLLOWING SPACING CRITERIA:

- TREES OR SHRUBS WITH A FULL-GROWN HEIGHT EQUAL TO OR GREATER THAN 30 INCHES SHALL NOT BE PLANTED IN ANY CLEAR VISION TRIANGLE.
- A MINIMUM DISTANCE OF 15 FEET IS REQUIRED BETWEEN THE CENTER OF TREES AND SHRUBS TO STREETLIGHT STANDARDS AND FIRE HYDRANTS.

REQUIREMENT MET
WITH PROPOSED
LANDSCAPE BUFFER
PLANTINGS

BUFFER & SCREENING PLANT SPECIES LIST

	SYMBOL	CODE	QTY.	COMMON/BOTANICAL NAME	SIZE (AT INSTALLATION)	SPACING O.C.	MATURE SIZE
OVERSTORY TREE		ARM	4	Marina Strawberry Tree / Arbutus x 'Marina'	24" BOX	40' O.C.	H 20'-30' W 20'-30'
		SHL	6	Saratoga Hybrid Laurel / Laurus x 'Saratoga'	24" BOX	40' O.C.	H 25'-30' W 25'-30'
		KDC	4	Keith Davey Chinese Pistache / Pistacia chinensis 'Keith Davey'	24" BOX	40' O.C.	H 30'-35' W 30'-35'
VERTICAL EVERGREEN SHRUBS		WLP	17	Wax Leaf Privet / Ligustrum japonicum 'Texanum'	5 GAL	20' O.C.	H 10' W 6'
		DJB	15	Dwarf Japanese Blueberry Tree / Eleocharis decipiens 'Little Emperor'	5 GAL	20' O.C.	H 10' W 6'-8'
SHRUBS		CWR	12	California Wildrose / Rosa californica	5 GAL	6' O.C.	H 8'-10' W 8'-10'
		SMA	31	Stanford's Manzanita / Arctostaphylos stanfordiana	5 GAL	6' O.C.	H 4'-9' W 6'
		BGW	24	Blue Gem Westringia / Westringia fruticosa	5 GAL	6' O.C.	H 6'-7' W 6'

NOTES: 1) QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY. 2) H.T. SPECIFIES MINIMUM SPECIMEN HEIGHT UPON INSTALLATION. 3) #5 CONT. TO MEET MINIMUM SIZE REQUIREMENT OF 24"H OR 30"W FOR DECIDUOUS SHRUBS UPON INSTALLATION. IF PLANT SIZE UNAVAILABLE AT #5 CONT. UPSIZE CONTAINER UNTIL MINIMUM PLANT SIZE REQUIREMENT IS MET.

BUFFER & SCREENING PLANT MATERIAL

Marina Strawberry Tree



Saratoga Hybrid Laurel



Keith Davey Chinese Pistache



Wax Leaf Privet



Dwarf Japanese Blueberry Tree



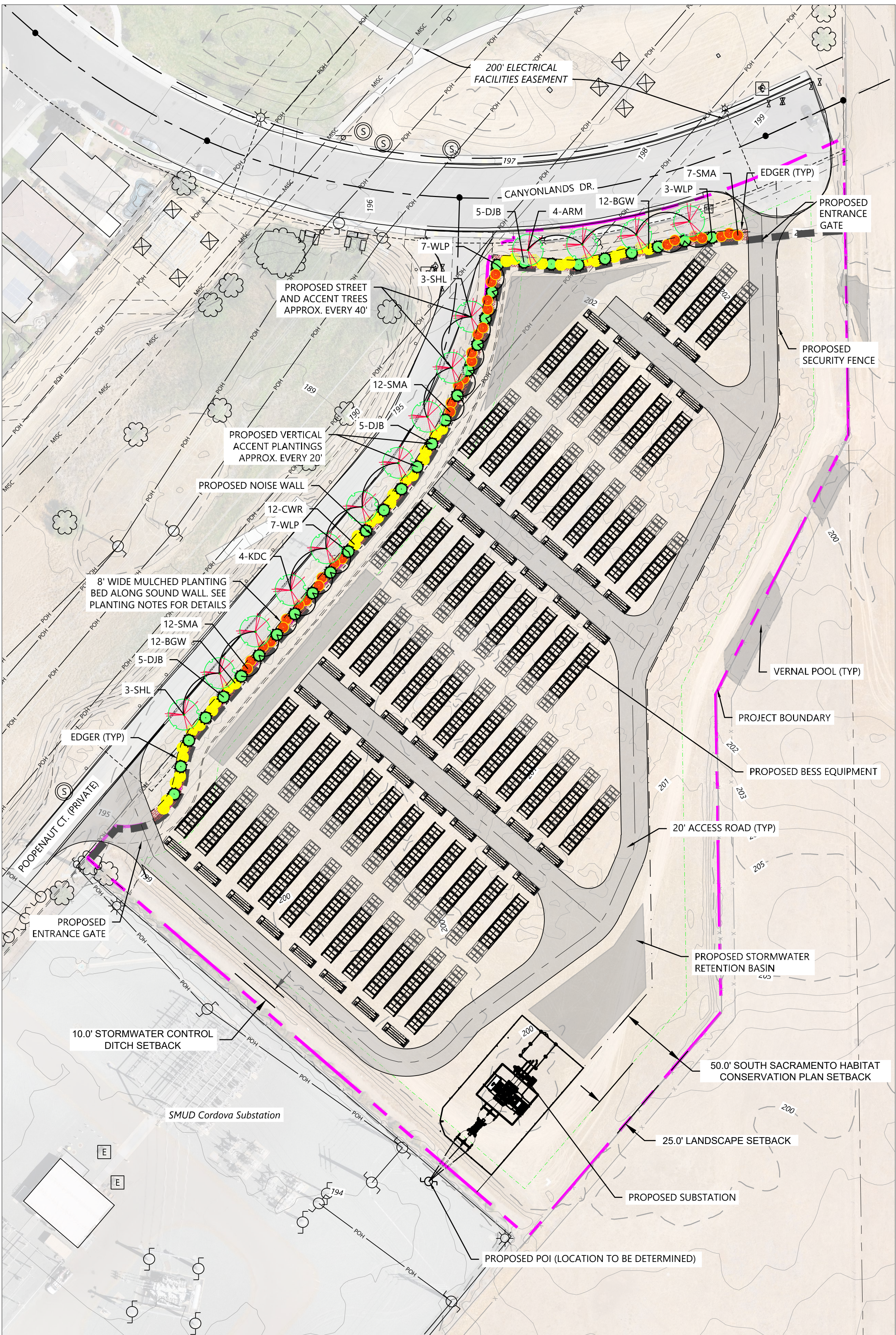
California Wildrose



Stanford's Manzanita



Blue Gem Westringia



Westwood

Phone (720) 531-8350 10170 Church Ranch Way, Suite #100

Toll Free (888) 937-5150 Westminster, CO 80021

westwoodps.com

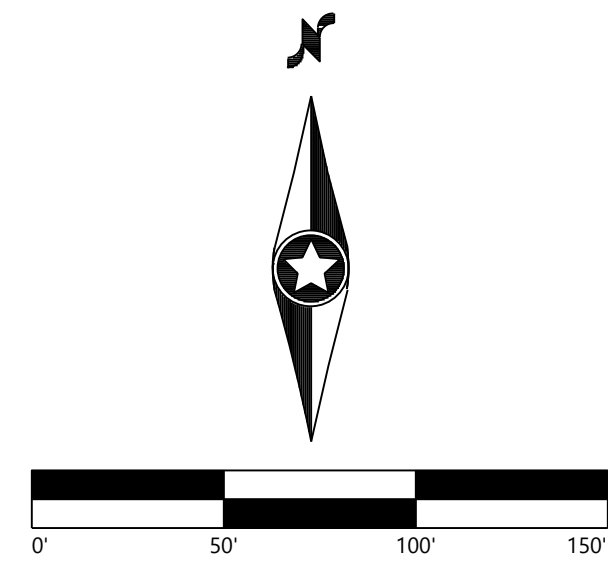
Westwood Professional Services, Inc.

PREPARED FOR:



125 E. JOHN CARPENTER FREEWAY, SUITE 525
IRVING, TEXAS 75062

REVISIONS:		
#	DATE	COMMENT



Sunridge Solar Storage Project

Sacramento County, California

Preliminary Landscape
Screening Notes & Details

NOT FOR CONSTRUCTION

DATE: 04/29/2022

SHEET: L.101

PLANTING NOTES

- CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
- ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
- NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
- ALL PLANTS TO BE SPECIMEN GRADE, CALIFRONIA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
- PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
- PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
- PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
- PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
- OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
- PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
- WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
- STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
- THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
- BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
- MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 3" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. MULCH TO BE FREE OF DELETERIOUS MATERIAL. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
- EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
- ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. PARKING LOT ISLANDS TO BE SODDED WITH SHREDDED HARDWOOD MULCH AROUND ALL TREES AND SHRUBS. SOD TO BE STANDARD CALIFRONIA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
- PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM, CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
- CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
- REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
- REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.

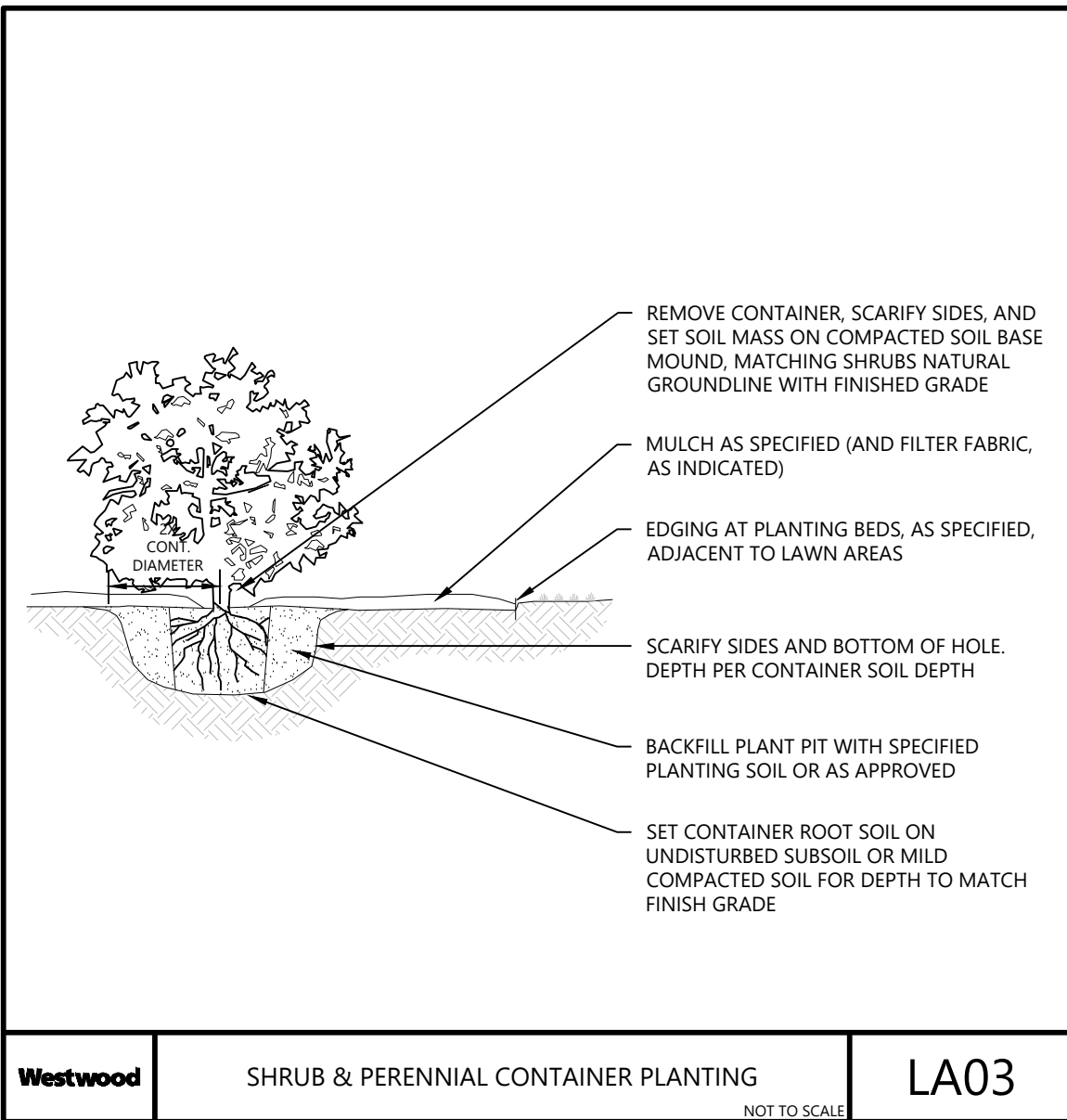
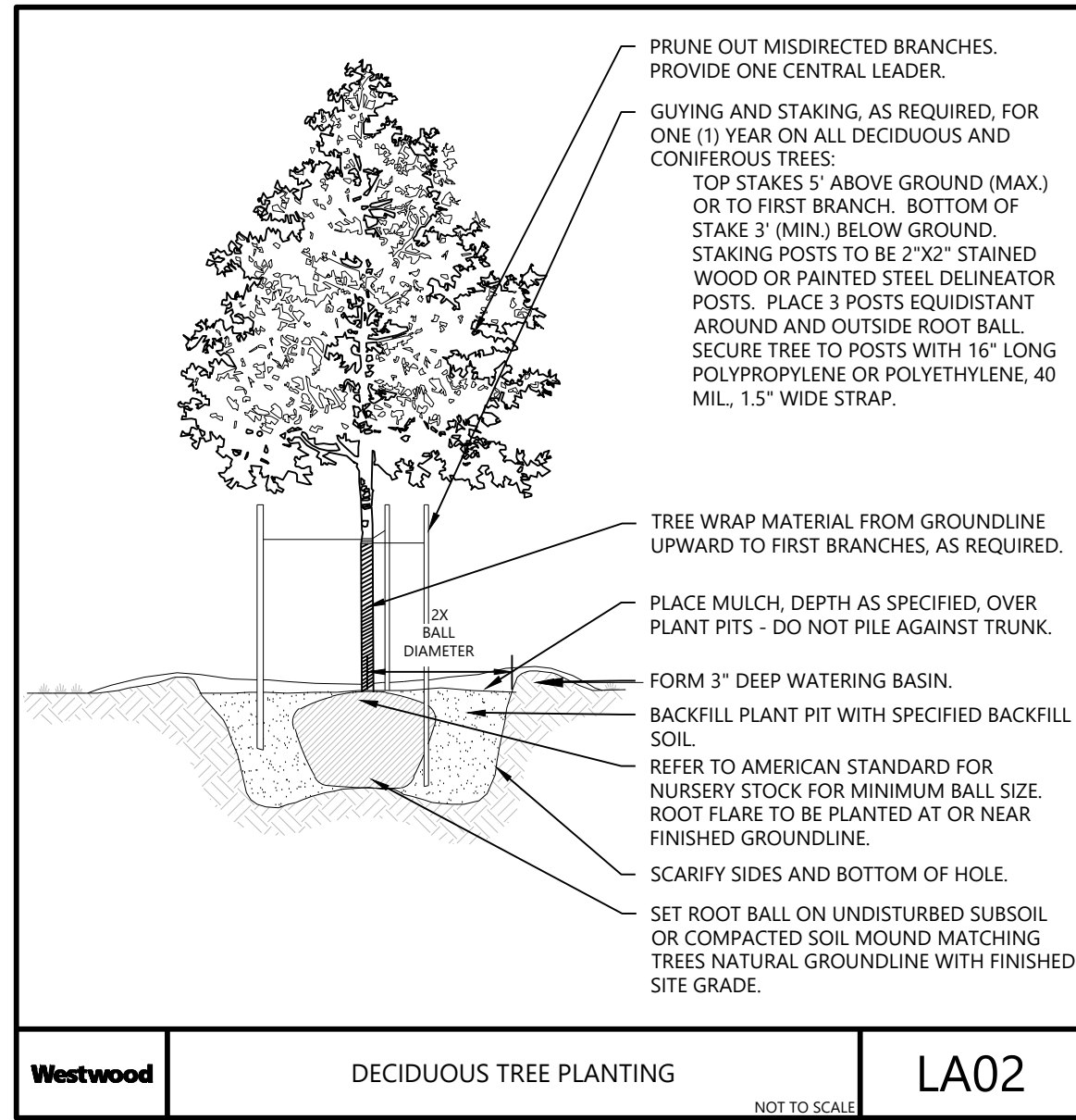
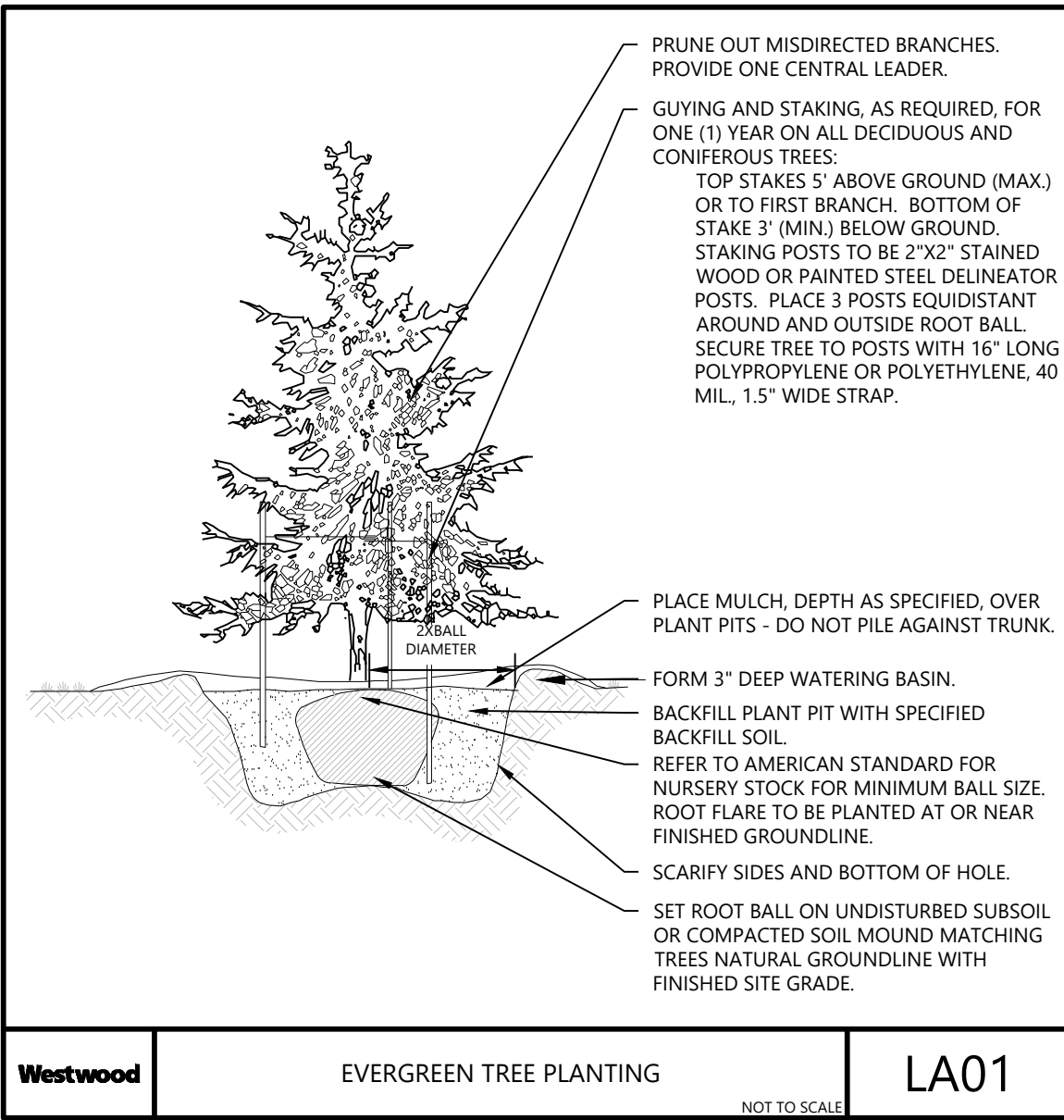
DESIGN REVIEW NOTES

PER THE CITY OF RANCHO CORDOVA DESIGN GUIDELINES AND WATER EFFICIENT LANDSCAPE ORDINANCE, THE FOLLOWING SHALL APPLY:

- A MINIMUM OF 25% OF ALL TREES SHALL BE 24" BOX CONTAINER SIZE OR LARGER. TREE SIZES SHALL BE ADJUSTED IF REQUIRED TO COMPLY BASED ON CALCULATIONS TO BE PROVIDED WITH CONSTRUCTION DOCUMENTS.
- A MINIMUM OF 30% OF ALL TREES SHALL BE EVERGREEN.
- ROOT BARRIERS ARE REQUIRED FOR TREES PLANTED WITHIN 10'OF PAVING OR HARDSCAPE PER ZONING CODE SECTION 23.716.
- PRE-EMERGENT SHALL BE APPLIED TO ALL NON-SEEDED LANDSCAPE AREAS PRIOR TO PLANTING
- A 3" MINIMUM OF BARK MULCH IS REQUIRED IN ALL NON-TURF PLANTERS.
- A WEED CONTROL LAYER IS REQUIRED IN ALL BARK MULCH AREAS.

PER THE CITY ARBORIST, THE FOLLOWING SHALL APPLY:

- TREES SHALL BE NOT LESS THAN 15' FROM STREETLIGHTS, AND 6'FROM PAVING AND UTILITY LATERALS (WATER, SEWER).



ITEM 5.1.

APPENDIX A

ENERGY STORAGE EQUIPMENT PHOTOS



Photo A-1: Typical modular battery energy storage unit



Photo A-2: Illustration of typical battery energy storage system enclosure and medium-voltage transformers/inverters

ITEM 5.1.

**ATTACHMENT 6
Exhibit C to the Resolution**

Conditions of Approval		<u>Category</u>	<u>Timing/ Implementation</u>	<u>Enforcement/ Monitoring</u>	<u>Verification</u> (date & Signature)
General Conditions					
1.	The approved entitlement is for a Zoning Text Amendment and Conditional Use Permit for the Juniper Creek Energy Storage project as described in the City Council staff report dated July 17, 2023 and attached project plans (<u>Exhibit A</u>) with the conditions herein, for project number PLND-0422-0034.	Project Description	On-Going	Planning	
2.	The Applicant shall hold harmless the City, its Council Members, officers, agents, employees, and representatives from liability for any award, damages, costs and fees incurred by the City and/or awarded to any plaintiff in an action challenging the validity of this permit or any environmental or other documentation related to approval of this permit. Applicant further agrees to provide a defense for the City in any such action.	General	On-Going	Planning	
3.	Any future alteration to the buildings, change in use, intensification of the site, or modification to the landscaped area must be reviewed by the City to ensure compliance with all local, state, and federal regulations. Minor modifications that are found to be in substantial conformance with the approved plans, may be approved administratively. Major modifications shall be approved by the applicable decision-making body.	General	On-Going	Planning/ Building /Public Works	
4.	Applicant/Developer shall not carry a negative account balance with the City for the processing of the project. If a negative account balance occurs, it will be the developer's responsibility to pay the balance due, in order to avoid delays in the processing of future permits or recordation of maps. Please email the Finance Department at billings@cityofranchocordova.org for the status of your account with the City.	General	On-Going	Finance	
5.	Applicant shall be responsible for all damage to City streets associated with construction of the project and shall repair any damage as soon as possible.	City Street Repair	On-Going	Public Works	

ITEM 5.1.**ATTACHMENT 6
Exhibit C to the Resolution**

Conditions of Approval		<u>Category</u>	<u>Timing/ Implementation</u>	<u>Enforcement/ Monitoring</u>	<u>Verification (date & Signature)</u>
6.	If any proposed garbage enclosure will contain a drain to the sewer, it must be covered.	Garbage Enclosure	On-Going	Sacramento Area Sewer District	
7.	SMUD reserves the right to use any portion of its easements on or adjacent to the subject property that it reasonably needs and shall not be responsible for any damages to the developed property with said easement that unreasonably interferes with those needs.	SMUD Easements	On-Going	SMUD	
8.	All outdoor lighting shall be constructed and operate within the required standards of Chapter 23.725.060 of the Rancho Cordova Municipal Code.	Outdoor Lighting	On-Going	Planning	
9.	The Conditional Use Permit Entitlement is valid for three years from the date of City Council approval, unless an extension of time is subsequently approved or substantial construction of the permitted use has commenced and is diligently pursued to completion; clear documentation is provided to establish that the permit holder has made a good faith effort to commence work upon the use; the permitted use has clearly been established; actual occupancy of an existing building or land occurs under the terms of the permitted use.	Permit Expiration	Three years, commencing with the date of approval.	Planning	
10.	Any ground or roof mounted mechanical equipment must be screened from view where feasible per Chapter 23.731 of the RCMC	Equipment Screening	On-Going	Planning	
11.	The Applicant/Developer shall comply with the Mitigation Monitoring and Reporting Program (MMRP) for the Juniper Creek Energy Storage project (Exhibit C of the Resolution).	MMRP	On-Going	Planning	
Prior to Approval of Improvement Plans					
12.	Any necessary future SMUD facilities located on the Applicant's property shall require a dedicated SMUD easement. This will be determined prior to SMUD performing work on the Applicant's property.	SMUD Easements	Prior to Approval of Improvement Plans	SMUD	

ITEM 5.1.

ATTACHMENT 6 Exhibit C to the Resolution

Conditions of Approval		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
13.	In the event the City requires an Irrevocable Offer of Dedication (IOD) for future roadway improvements, the Applicant shall dedicate a 12.5-foot public utility easement (PUE) for overhead and/or underground facilities and appurtenances adjacent to the City's IOD.	Public Utility Easement	Prior to Approval of Improvement Plans	SMUD	
14.	The Applicant shall dedicate a 12.5-foot public utility easement for overhead and/or underground facilities and appurtenances adjacent to all public street rights-of-ways.	Utility Easement	Prior to Approval of Improvement Plans	SMUD	
15.	The Applicant shall dedicate any private drive, ingress and egress easement, (and 10-feet adjacent thereto) as a public utility easement for (overhead and) underground facilities and appurtenances. All access roads shall meet minimum SMUD requirements for access roads.	Access Roads	Prior to Approval of Improvement Plans	SMUD	
16.	Show the design for a fire access roadway of not less than 20-feet of unobstructed width, 13-feet, 6-inches of vertical clearance, and turning radii of 25 feet inside and 50 feet outside dimension on the improvement plans. The access roadway shall extend within 150 feet of all portions of the exterior walls of the first story of any proposed building. <i>The use of turf-block or grass-crete or similar alternate road surfaces is not approved for installation in fire apparatus access roadways.</i>	Fire Access Roadway	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
17.	Show the design for a minimum of 2 remote fire access roadways. Remote fire access roadways shall be spaced a distance apart equal to not less than one-half of the maximum diagonal dimension of the property or areas to be served. A minimum 2 remote access roadways shall be provided for in any of the following conditions: • A single building in excess of 62,000 sq. ft. • Multiple buildings within a single parcel where the total combined square footage is in excess of 62,000 sq. ft. • Multi-family dwellings in excess of 39 units.	Fire Access Roadway	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	

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18.	Show the design for an approved fire apparatus turnaround. The fire apparatus turnaround shall conform to Sacramento Metro Fire Districts, Fire Prevention Standard #3. The fire access turn-around shall be located within 50 feet of the end of the access roadway.	Aerial Apparatus Turnaround	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
19.	Show on the plan how Fire Lanes will be marked. Fire Lane identification shall be provided along the required fire access roadway. Fire Lane identification shall be in accordance with the Sacramento Metro Fire Districts Fire Prevention Standard #3 and the California Vehicle Code. Vehicle parking is prohibited on any street less than 28 feet in width. Vehicle parking is permitted on both sides of streets 36 feet or more in width. Roadway widths shall be measured between the gutter-line or edge of pavement on opposite sides of the road. Identification of fire apparatus access roadways may be required on private roads.	Fire Lanes	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
20.	Provide a note on the plan that reads, "Fire apparatus access roads shall be designed and maintained to support the imposed live load of 80,000 pounds, with a maximum axle load of 31,000 pounds, and meet Public Works Standards for roadways. A report, prepared by a registered geotechnical engineer, verifying the ability of the road to bear the required minimum weight, shall be submitted with any plan indicating construction of roadway. Verification of constructed roadway shall be provided by a registered geotechnical engineer prior to final of the project."	Fire Apparatus Access Roads	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
21.	Show the location of the required fire hydrants for this project on the improvement plans. Approved fire hydrants capable of providing the required fire flow for the protection of any and all structures shall be located along the fire apparatus access roadway. The required fire hydrants shall be installed and operational prior to any construction or on-site storage of combustible materials. The minimum required fire flow for the protection of commercial developments is 1,500 gallons per minute	Fire Hydrants	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	

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	(gpm) at a pressure of 20 pounds per square inch (psi) for a two-hour duration.				
22.	Drainage Study: Applicant shall prepare and submit a project specific drainage study that includes but is not limited to: a pre-and post-project drainage analysis of the project impacts, identification of offsite project impacts or required offsite improvements, and identification of proposed connections to the City's Storm Drainage System with adequate supporting calculations. The drainage study shall conform to the requirements of the Sacramento City/County Drainage Manual (Volume 2), County of Sacramento Improvement Standards (Section 9), and all other applicable City standards. The drainage study must be developed and stamped by a Professional Engineer and determined by the City to be accurate and adequate.	Drainage Study	Prior to Approval of Improvement Plans	Public Works	
23.	Stormwater Quality- Post Construction The improvement plans shall incorporate all applicable post construction stormwater quality measures; including source control, hydromodification management, low impact development, and full capture trash control measures into the site improvement plans in conformance with the most recent version of the <i>Stormwater Quality Design Manual for the Sacramento Region</i> . The applicant shall prepare and submit a Post-Construction Stormwater Quality Control Plan that includes details and sizing calculations of all the proposed post construction stormwater quality measures. In addition, a maintenance covenant is required for all proposed post construction stormwater quality measures, as detailed in Appendix B of the <i>Stormwater Quality Design Manual for the Sacramento Region</i> .	Stormwater Quality	Prior to Approval of Improvement Plans	Public Works	

Conditions of Approval		<u>Category</u>	<u>Timing/ Implementation</u>	<u>Enforcement/ Monitoring</u>	<u>Verification</u> (date & Signature)
24.	Stormwater Quality– During Construction: SWPPP – the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the City’s Improvement Standards and Land Grading and Erosion Control Ordinance. During construction, the applicant shall implement BMPs in accordance with the SWPPP and the City’s Improvement Standards. Advisory Condition: Construction General Permit The project applicant shall file a Notice of Intent (NOI) to obtain coverage under the <i>National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated With Construction And Land Disturbance Activities</i> (Construction General Permit). Permits are issued by the State Water Resources Control Board.	Stormwater Quality	Prior to Approval of Improvement Plans	Public Works	
25.	The SWPPP for the site shall include a contingency plan for the implementation of a process to remove fine clay sediments prior to discharge to the City of Rancho Cordova’s storm drain system and/or Waters of the State (e.g., creeks, rivers) to the satisfaction of the City of Rancho Cordova. A polymer treatment system or comparable process shall be incorporated in the erosion and sediment control plan as part of the improvement plans submittal. This system shall be implemented by qualified professionals with training and proven experience in this field. Such treatment shall be accomplished in a manner that does not pose a toxic threat to fish and other aquatic organisms in receiving waters.	SWPPP Mitigation	Prior to Approval of Improvement Plans	Public Works	

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Conditions of Approval		<u>Category</u>	<u>Timing/ Implementation</u>	<u>Enforcement/ Monitoring</u>	<u>Verification (date & Signature)</u>
26.	Drainage System Design: The applicant shall submit and obtain City approval of plans and specifications for the construction of public improvements and all grading. The drainage system shall be designed in accordance with the approved Drainage Study to accommodate runoff from the ultimate development and shall meet the City of Rancho Cordova's Improvement Standards, construction standards, and Floodplain Management Ordinances in effect at the time of improvement plans approval.	Drainage System	Prior to Approval of Improvement Plans	Public Works	
27.	All development within the City must comply with the City of Rancho Cordova's Floodplain Management Ordinance. All new structures shall be protected from the 100-year (1 percent) flood event. Certified pad elevations (certified by a registered Civil Engineer or licensed Land Surveyor) shall be set at least one and two tenths foot (1.2') above all sources of 100-year flooding (see Section 9-1 of improvement standards). The overland release path must be shown on the improvement plans and the hydraulic computation must be provided to estimate the flow depths along the overland release paths. The calculations must be in conformance with Section 9-15 of the Improvement Standards.	Floodplain Management	Prior to Approval of Improvement Plans	Public Works	
28.	Provide a permanent concrete stamp, or other permanently applied message to the satisfaction of the City not including paint, which reads "No Dumping-Flows to Creek" or other approved message at each storm drain inlet.	Concrete Stamps	Prior to Approval of Improvement Plans	Public Works	
29.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Private Lot Drains	Prior to Approval of Improvement Plans	Public Works	
30.	Fees: Pay the drainage impact fees to the satisfaction of the City of Rancho Cordova's Public Works Department.	Drainage Impact Fees	Prior to Approval of Improvement	Public Works	

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			Plans		
31.	Number, size, and location of driveways are subject to approval by the Public Works Department	Driveway Location	Prior to Approval of Improvement Plans	Public Works	
32.	Enter into a frontage agreement and bond for construction of public improvements per the approved Public Works plans to the satisfaction of the Public Works Department.	Frontage Agreement	Prior to Approval of Improvement Plans	Public Works	
33.	A final landscape plan shall be submitted in conjunction with improvement plan and or building permit submittal and approved by the planning and public works departments prior to issuance of permits and/or any installation of landscape materials RCMC 23.716.020. The final landscape planting and irrigation plan shall be prepared by a registered licensed landscape architect and include the following items per RCMC 22.180.060: • Planting plan to scale that indicate slope • Irrigation Plan • Soils Test • Water Use Calculations • Irrigation Schedule • Permeability test for LID facilities' locations • Soil media specifications (LID features)	Landscape Plan	Prior to Approval of Improvement Plans	Public Works	
34.	All landscape strips, medians, etc. that contain trees shall be designed to include continuous root barriers. Trees shall be appropriately sized for their proposed planters.	Root Barriers	Prior to Approval of Improvement Plans	Public Works	

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35.	Driveway access grade shall be designed to accommodate a future 10ft wide frontage path. Provide details to the satisfaction of the Public Works Department.	Driveway Grade	Prior to approval of improvement plans	Public Works	
36.	The Applicant shall not place any building foundations within 5-feet of any SMUD trench to maintain adequate trench integrity. The Applicant shall verify specific clearance requirements for other utilities (e.g., Gas, Telephone, etc.).	Clearance Requirements	Prior to Approval of Improvement Plans	SMUD	
37.	Prior to any ground disturbance or issuance of grading or improvement plans, the applicant shall obtain a Covered Activities Authorization permit in compliance with the South Sacramento Habitat Conservation Plan (SSHCP).	SSHCP	Prior to Issuance of grading or improvement plans	Planning	
Prior to Issuance of Building Permit					
57.	Applicant shall complete improvement plans to the satisfaction of the Public Works Department. Improvement plans shall include, but shall not be limited to: • All onsite civil improvements • Civil plan shall include an ADA access plan • Remove and replace existing sidewalk and provide a 10' wide Class I Bike Path within the existing 10' Pedestrian Easement along Canyonlands Dr. The Bike Path, curb, and gutter shall extend along the entire property, frontage of Canyonlands Dr., excepting the easterly approximately 100ft of frontage at the "bulb-like" feature. Per the City of Rancho Cordova Bicycle Master Plan, a Class I Bike Path is planned within the project site. • The existing "bulb-like" feature in the roadway (south of the right of way line) is not a part of the ultimate configuration of Canyonlands Dr. Said feature shall be removed and replaced	Improvement Plans	Prior to Issuance of Building Permits	Public Works	

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	with City standard roadway section at a time determined by the Public Works Department or at such time that Canyonlands Dr. is extended further to the east, whichever occurs first. Enter into a deferred improvement agreement with the City for completion of property frontage improvements in “bulb-like” feature at the easterly approximately 100ft of frontage, including but not limited to 10ft wide trail, curb, gutters, and removal and replacement of bulb per RCMC 12.03 - Street Improvements. • Relocate any obstructions (existing street light, street light pullbox, and vaults) to be outside of the new bike path and driveway. • Utility laterals • Replacement of damaged pavement along property frontage to the satisfaction of The Public Works Department • Public improvement plans shall clearly delineate all transitions to existing improvements. • All improvements to be designed and constructed to the satisfaction of the Public Works Department. • Compete installation of all improvements shown on the improvement plan to satisfaction of the City prior to occupancy				
58.	The 12-foot screen wall shall be continued along the northern property boundary to provide screening of the site from Canyonlands Drive.	Screen Wall	Prior to Issuance of a Building Permit	Planning	
59.	Property Owner/Applicant shall participate in or provide a funding mechanism for maintenance services for the project’s stormwater drainage and flood protection system. This may be accomplished through annexation to the City’s Stormwater Utility Fee District, or other financial mechanism as may be proposed and provided by the Property Owner for the same purpose of providing a funding mechanism to fund the operation and maintenance of the Project’s	Stormwater Drainage and Flood Protection System	Prior to Issuance of Building Permit	Public Works	

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	stormwater drainage and flood protection system. Costs associated with the annexation shall be borne by the Property Owner/Applicant through payment of the annexation costs in the amount of \$7,000 per annexation. Contact Dalia Fadl at (916) 851-8718 with regard to the process to satisfy this condition of approval.				
60.	Property Owner/Applicant shall participate in or provide a funding mechanism for maintenance services for the fair share of existing and all new public improvements associated with the project including, but not limited to, streets, bridges/culverts, traffic signals, traffic signs, striping and legends, ITS operations, street lights and safety lights, and public frontage and median landscape improvements. This may be accomplished through annexation to the City's Communities Facilities District No. 2008-1 (Street Lighting and Road Maintenance). All costs associated with the annexation shall be borne by the Property Owner/Applicant through payment of the annexation costs of the CFD annexation in the amount of \$5,000 per annexation. Contact Dalia Fadl at (916) 851-8718 with regard to the process to satisfy this condition of approval.	Existing and New Public Improvements	Prior to Issuance of Building Permits	Public Works	
61.	All projects are subject to Sacramento Metro Air District rules and regulations in effect at the time of construction.	Construction Regulations	Prior to Issuance of Building Permits	Sacramento Metro Air District	
62.	Provide details regarding minimum 100 feet setback from buildings, lot line, public ways, stored combustible materials, hazardous materials, high-pilled stock and other exposure hazards, as to comply with 2022 CA Fire Code Sections 1207.5.2 and 1207.8.1 and NFPA 855-2020, Sections 4.4.3.1(2) and 4.8(2).	Fire Standards	Prior to Issuance of Building Permits	Sacramento Metro Fire District	

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63.	The proposed storage quantity exceeds the maximum allowable quantities per 2022 CA Fire Code, Table 1207.5 and a dedicated-use building will be required to comply with Section 1207.7.1.	Storage Quantity	Prior to Issuance of Building Permits	Sacramento Metro Fire District	
64.	The NFPA 13-2022 excepts Li-ion batteries from commodity classifications, therefore the fire sprinkler system shall be designed based on large-scale fire testing (NFPA 12-2022, Section 24.1.6).	Fire Sprinkler System	Prior to Issuance of Building Permits	Sacramento Metro Fire District	
65.	The Applicant shall meet the following: Civil Site Plans and Architectural Plans shall be submitted <u>and</u> approved prior to Final Building Permit being issued. Fire Sprinkler and Fire Alarm plan shall be <u>submitted</u> prior to Final Building Permit being issued. Please note: The Sacramento Metro Fire District does not allow deferred submittals for Fire Sprinkler or Fire Alarm plans.	Plan Submittal	Prior to Issuance of Building Permits	Sacramento Metro Fire District	
66.	Where a bridge or elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17.	Bridge Construction	Prior to Issuance of Building Permits	Sacramento Metro Fire District	
67.	In the event the Applicant requires the relocation or removal of existing SMUD facilities on or adjacent to the subject property, the Applicant shall coordinate with SMUD. The Applicant shall be responsible for the cost of relocation or removal.	SMUD Facilities	Prior to Issuance of Building Permit	SMUD	
68.	The Applicant shall comply with SMUD siting requirements (e.g., panel size/location, clearances from SMUD equipment, transformer location, service conductors). Information regarding SMUD siting requirements can be found at: https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services	Siting Requirements	Prior to Issuance of Building Permit	SMUD	
Prior to Final Inspection					

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69.	Install public and onsite improvements per the approved Public Works plans and to the satisfaction of the Public Works Department.	Improvements	Prior to Final Inspection of the First Unit	Public Works	
70.	Upon completion of the installation of the landscaping, the designer shall certify that the landscape complies with all city water conserving landscape requirements. Certification shall be accomplished by completion of a certificate of compliance on a form approved by the director of the city public works department. Failure to submit a complete and accurate certificate of compliance will delay final approval of the project and/or discontinue water service per RCMC 22.180.090. Upon receipt of the certificate of compliance and site inspection from City staff, the landscaping performance bond will be released.	Landscape Improvements	Prior to final building inspection	Public Works	
71.	Record drawings of grading and improvement plans (1 full size and 1 half size hard copy), as well as a compact disc containing said plans in AutoCAD and pdf format, and a GIS shape file, or equivalent to the satisfaction of the City Engineer shall be submitted and approved by the Public Works Department.	Final Drawings	Prior to final building inspection	Public Works	
72.	Approved numbers or addresses shall be placed on all new or existing buildings in such a position as to be easily read from the street or road fronting the property. The minimum size of the numbers shall not be less than six (6) inches and shall be mounted immediately adjacent to a light source and shall also contrast with their background.	Addressing	Prior to final inspection	Sacramento Metro Fire District	
Advisory Conditions					
73.	Any gates shall be installed in accordance with The County Emergency Access and Barriers Standard. Plan submittal is required prior to installation.	Gates	Advisory	Sacramento Metro Fire District	

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74.	The Sacramento Metropolitan Fire Districts requirements are not to be construed as abrogating more restrictive requirements by other agencies having jurisdiction. Final acceptance is subject to field approval and completion of required tests.	SMFD Requirements	Advisory	Sacramento Metro Fire District	
75.	The Owner must contact Permit Services Unit at PermitServices@sacsewer.com or by phone at (916) 876-6100 to determine if sewer impact fees are due. Fees are to be paid prior to the issuance of building permits.	Sewer Impact Fees	Prior to Issuance of Building Permits	Sacramento Area Sewer District	
76.	To obtain sewer service, construction of SASD sewer infrastructure will be required. Current SASD Standards and Specifications apply to any offsite or onsite public sewer construction or modification. These improvements must be shown on the plans. Field modifications to new or existing precast manhole bases are not allowed.	Sewer Infrastructure	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	
77.	SASD requires each building on each lot with a sewage source to have a separate connection to SASD's sewer system. If there is more than one building in any single parcel and the parcel is not proposed for split, then each building on that parcel must have a separate connection to a private onsite sewer line or a separate connection to the SASD public sewer line. These improvements must be shown on the plans.	Sewer Connections	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	

JUNIPER CREEK ENERGY STORAGE PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

CEQA and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment.” A Mitigation Monitoring and Reporting Program (MMRP) is required for the proposed project because the Initial Study identifies potential significant adverse impacts related to the project implementation, and mitigation measures have been identified to reduce those impacts. Adoption of the MMRP would occur along with approval of the proposed project.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed in a satisfactory manner prior to implementation of the proposed ordinance. The attached table has been prepared to assist the responsible parties in implementing the mitigation measures. The table identifies the mitigation measures, responsibility, mitigation timing, and provides space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the Initial Study. Mitigation measures that are referenced more than once in the Initial Study are not duplicated in the MMRP table.

ROLES AND RESPONSIBILITIES

As specified herein, the project applicant or its designee is responsible for taking all actions necessary to implement the mitigation measures and for demonstrating that the action has been successfully completed. The City of Rancho Cordova shall confirm implementation of all measures under its jurisdiction according to the specifications provided for each measure.

Inquiries should be directed to:

Darcy Goulart, Planning Manager
City of Rancho Cordova Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670

E-mail comments may be addressed to: dgoulart@cityofranchocordova.org

The location of this information is:

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

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- ▶ Mitigation Measure – This column provides the verbatim text of the adopted mitigation measure.
- ▶ Implementation Responsibility – This column identifies the party responsible for implementing the mitigation measure.

ITEM 5.1.Mitigation Monitoring and Reporting Program

- ▶ Timing – This column identifies the time frame in which the mitigation will be implemented.
- ▶ Verification – This column is to be dated and signed by the person (either project manager or his/her designee) responsible for verifying compliance with the requirements of the mitigation measure.

Mitigation Monitoring and Reporting Program

Mitigation Measures	Implementation Responsibility	Timing	Verification
Geology and Soils and Mandatory Findings of Significance			
Mitigation Measure-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.	Project Applicant and Construction Contractors	Throughout construction.	

April 21, 2022

13836.01

Keleigh Wright
Sunridge Energy, LLC
125 E. John Carpenter Freeway, Suite 525
Irving, Texas 75062

Subject: Sunridge Energy Storage Project – Visual Impact Assessment

Dear Ms. Wright,

Dudek is proud to present the following Visual Impact Assessment (VIA) for the proposed Sunridge Energy Storage Project. Consistent with California Environmental Quality Act (CEQA) requirements, the VIA documents the existing environmental setting and describes the aesthetic setting as it pertains to the region, project vicinity and project sites. In addition, the VIA describes potential impacts to existing views and visual character in accordance with significance thresholds established in Appendix G of the CEQA Guidelines.

1 Purpose

The purpose of this technical memorandum is to provide a VIA that describes the existing environmental and regulatory setting and describes the potential impacts to aesthetic resources resulting from development of the Sunridge Energy Storage Project (Project) in Rancho Cordova, California. For purpose of this technical memorandum, aesthetic resources include resources considered in the aesthetics thresholds of Appendix G of the CEQA Guidelines (i.e., scenic vista, scenic resources within a state Scenic Highway, existing visual quality and character, and day and nighttime views).

2 Introduction

2.1 Proposed Project Overview

The applicant, Sunridge Energy, LLC., proposes to develop an approximately 200-megawatt battery energy storage system (BESS) on approximately six acres of vacant land in the City of Rancho Cordova, California. See Figure 1, Location Map. 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 site is currently undeveloped and is adjacent to the Sunridge Park Village residential community and the Sacramento Municipal Utilities District (SMUD) Cordova Substation. The point of interconnection is the adjacent SMUD substation. The remainder of the surrounding area to the northeast, east, and southeast is vacant undeveloped land.

TO: KELEIGH WRIGHT

SUBJECT: SUNRIDGE ENERGY STORAGE PROJECT - VISUAL IMPACT ASSESSMENT

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.

2.2 Detailed Project Description

2.1.1 Battery Energy Storage System Enclosures

Batteries will be housed in containers or purpose-built enclosures (see Appendix A). The BESS will be designed and installed in conformance with the nationally recognized National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems, along with all applicable state and City 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. 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.

The location of BESS enclosures is depicted on Figure 2, Preliminary Site Plan.

2.1.2 Batteries and Racks

The lithium-ion 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 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 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.

2.1.3 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 BESS facilities do

TO: KELEIGH WRIGHT

SUBJECT: SUNRIDGE ENERGY STORAGE PROJECT - VISUAL IMPACT ASSESSMENT

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.

2.1.4 Generation Transmission Line

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

2.1.5 Outdoor Electrical Equipment

MV transformers and additional electrical equipment will be installed outside the BESS enclosures. 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 a concrete pad housing 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.

2.1.6 Inverters

Inverters are unattended, stand-alone units that operate in all conditions. They operate in both a charge mode and a discharge mode. They are UL listed for bi-directional use and are monitored and controlled remotely. There will be on-site disconnects in the case of an emergency or unscheduled maintenance. They are robust in their design and are designed to last more than 30 years with proper preventive maintenance, scheduled maintenance, and occasional major overhauls.

2.1.7 Telecommunications 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.

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.

2.1.8 Site Access and Security

Access to the project site is anticipated to be provided via Canyonlands Drive, an existing two-lane 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. A solid, 12-foot-high wall constructed of concrete masonry unit (or similar solid material) would be constructed along the western boundary of the project and standard chain-link fencing (6-7 feet high) would be installed along the remaining perimeter of the site.

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.

3 Regulatory Setting

3.1 Federal

Federal Highway Administration

While the Project is not under the jurisdiction of the federal government, the Federal Highway Administration (FHWA) *Guideline for the Visual Impact Assessment of Highway Project* is referenced in this report and is used as a model for the assessment of visual impacts. Per the FHWA guidelines, the aesthetic quality of an area is determined through the variety and contrast of the area's visual features, the character of the features, and the scope and scale of the visible landscape.

An area's aesthetic quality is dependent on the relationship between its features and their significance/importance in the available view. The method for evaluating resource change requires consideration of visual character and an assessment of the attributes of visual quality (vividness, intactness, and unity). Viewer response is informed by viewer exposure and viewer sensitivity. The change in resource combined with viewer response to determine the overall visual impact.

3.2 State

Caltrans Scenic Highways Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highway Code, Section 260 et seq. The Scenic Highways Program is comprised of officially designated scenic highways (i.e., highways for which corridor protection programs have been adopted and the highways are listed in the Streets and Highway Code) and eligible scenic highways (i.e., highways designated as scenic by the local planning department).

The nearest state scenic highway, State Route 160 (SR-160; an officially designated state scenic highway from the Contra Costa county line to the Sacramento city limits, is over 17 miles to the southwest from the project site (Caltrans 2022). The nearest eligible state scenic highway, SR-49 from Tuolumne County to Nevada County near Grass Valley, is nearly 20 miles to the east of the project site (and in a narrow valley to the immediate east of Logtown Ridge).

3.3 Local

Rancho Cordova General Plan

The Rancho Cordova General Plan serves as a blueprint for future growth and development of the City. The General Plan includes twelve elements that include the State required land use, circulation, housing, open space,

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conservation, safety, and noise components. The following General Plan elements contain goals, policies, and action items that are relevant to aesthetics, the project, and/or the project site:

Urban Design Element

- **Goal UD.4:** Ensure that projects are designed in keeping with the context of surrounding areas and overall community.
- **Policy UD.4.2:** Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.
- **Policy UD.4.5:** Recognize existing vistas and views of natural and manmade landmarks throughout and around the community.

Infrastructure Services and Finance Element

- **Policy ISF.2.7:** Minimize visual impacts and physical impediments of utility sites, infrastructure, and equipment.
- **Action ISF.2.7.2:** Require complete visual screening of all utility sites, facilities, and equipment, with special emphasis on screening in proximity to residential property or in viewshed.

Require complete visual screening of all utility sites, facilities, and equipment, with special emphasis on screening in proximity to residential property or in viewshed. **Rancho Cordova Municipal Code and Future Land Map and Sunridge Specific Plan**

According to the City's Zoning and Future Land Map (City of Rancho Cordova 2006), the project site is zoned for Limited Commercial (LC) use and is within the Sunridge Specific Plan. However, it should be noted that the City's current Zoning Code does not currently use or reference a Limited Commercial zone except by reference to and incorporation of the Sunridge Specific Plan, which in turn references the Sacramento County Zoning Code. Section 8, Non-Residential Design: General Standards, of the Sunridge Specific Plan contains the following general design standards intended to achieve compatible designs in the specific plan area (note that only standards determined to be particularly relevant to the project and aesthetics are listed below):

8.1 Quality Image

- DS 90: Exterior materials that convey quality, permanence, and substance are required in all design.
- DS 91: The use of materials, color, and finishes shall be coordinated to achieve a sense of continuity and quality in design.
- DS 92: Textured material(s) and/or architectural details shall be used to articulate the surface of the walls. Untextured, untreated concrete tilt-up buildings lacking detail and architectural style are not appropriate in this Plan Area.

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- DS 95: Natural light and external night lighting shall be used to enhance and articulate the buildings without off-site glare.
- DS 96: All primary building and project entries shall afford a sense of entry and be well-defined by varied textures, forms, materials, colors and landscaping.

8.2 Scale and Massing of Buildings

- Create an interesting view from vantage points both within and from the exterior of the site, and allow “landmark” buildings to stand out above the other buildings and landscape.

Lastly, Chapter 23.725, Outdoor Lighting, of the Zoning Code (i.e., Title 23 of the City’s Municipal Code) regulates lighting and contains prohibited lighting types, as well as general lighting standards. Standards include requiring lighting to be designed, installed, directed, shielded, and maintained to prevent glare, light trespass, and light pollution. Other than exempt lights including holiday, special event, and emergency lighting, outdoor lighting must be fully shielded or recessed to reduce light trespass from adjoining properties and generally must be designed to illuminate the minimum level necessary for safety and security.

4 Environmental Setting

4.1 Regional

4.1.1 Project Vicinity

The Project site is currently undeveloped and is located near the Sunridge Park Village residential community, Sunridge Park, and the SMUD Cordova Substation. The single-family residential community includes both one- and two-story residences that exhibit similar design characteristics (i.e., rectangular floor plans, light colored stucco clad exteriors (some structures include stone or brick accents), rectangular or arched entryways and windows, shingle-style roofs, and small front yards. Internal roadways tend to be unmarked/unstriped and wider streets include small landscaped parkways and dedicated sidewalks. Located northwest of the project site, Sunridge Park (approximately 7 acres) features a large turf area encircled by a paved concrete path, a basketball court, splash, picnic areas, covered playgrounds, and pavilion building. The approximately 6-acre SMUD Cordova Substation features a graveled site surrounded by simple chain-link fencing and limited landscaping. The substation is defined by numerous greyish vertical features (transmission line poles, racks, bays, circuit breakers, switchgear, transformers, etc.) that, due to the relatively flat terrain in the surrounding area, are typically viewed from nearby areas against the distant sky. A related transmission corridor is located to the immediate west of the substation in lands that are seasonally inundated by rainfall. A primarily wood fence and single-family homes in the Sunridge Park Village residential community lie to the west of the transmission corridor.

The remainder of the surrounding area to the northeast, east, and southeast is vacant undeveloped lands with the majority designated for Natural Resource use by the City. The vacant undeveloped lands to the east include an existing preserve associated with Laguna Creek that includes vernal pool, valley grassland, streams/creeks, and

several swales. To the north of the site, simple post and wire fencing delineates the natural lands that in addition to supporting the land covers described above is used for limited livestock grazing.

4.1.2 Project Site

The approximately 6-acre Project site is located wholly within the incorporated City of Rancho Cordova. The site, which is generally undeveloped, primarily consists of disturbed lands with the balance (approximately 0.40-acre) mapped as either grasslands or vernal pools. Grasslands and vernal pools are focused along the easternmost portion of the project site. Existing vegetation on site is comprised of low grasses that display shades of green or yellow depending on the season of observation. Onsite terrain is generally flat although gradual slopes occurs from the south to the north (approximately 8 feet of elevation gain) and west to east (approximately 6 feet of elevation loss). Electrical transmission infrastructure (i.e., aboveground transmission lines and poles) are aligned along the western portion of the site adjacent to the existing two-lane paved access road (Canyonlands Drive) to the SMUD Cordova Substation. Furthermore, evidence of onsite recreational vehicle use is visible in aerial photographs of the site and an informal road/access path is evident along the eastern and southern boundary of the 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.

4.2 Existing Conditions

In addition to the description of the visual characteristics of the project vicinity and site provided above in Sections 4.1.1 and 4.1.2, existing conditions including view quality and visual character is investigated in this report through use of Key Observation Points (KOPs). KOPs are representative vantage points available to the primary viewing groups in the surrounding area that offer public views to the Project site. For purposes of this report and due to the location of the Project site relative to the Sunridge residential community, three (3) KOPs were established to support to the characterization of the existing setting and aid in the assessment of aesthetic/visual impacts. The location of the KOPs relative to the project site is depicted on Figure 3, Key Observation Points.

4.2.1 Key Observation Point 1 – Canyonlands Drive

Located on Canyonlands Drive, KOP 1 is situated approximately 85 feet from the northwestern corner of the Project site and is oriented to the southeast towards the site and Cordova Substation. See Figure 4, Key Observation 1 – Canyonlands Drive. The KOP is located along the westbound travel lane and looks across Canyonlands Drive to the visibly elevated and low-grasses covered site. The site, which is approximately 4 feet greater in elevation than the surface of KOP 1, is undeveloped but tall tubular steel transmission line poles are visible to the southeast and multiple conductor lines are present in the foreground of the view. A paved driveway to the substation is in the foreground of the view as is a single street light, fire hydrant and other aboveground utilities, and signage. A line of seemingly low trees (Italian cypress) line the northern extent of the Cordova Substation.

4.2.2 Key Observation Point 2 – Public Trail/Path

Located west of the Project site, Cordova Substation, and transmission corridors, KOP 2 is situated on an informal trail/path that is adjacent to single-family residences in the Sunridge residential community. See Figure 5, Key Observation Point 2 – Public Trail/Path. As shown in the figure, KOP 2 looks across a creek corridor with visible standing water and dry reeds/aquatic grasses. The edges of the curving corridor are marked by isolated, spreading shrubs (4-8 feet high) and lands to the east are covered with low grasses. The local terrain gradually rises to the east and supports two tall transmission poles (the more proximate poles is situated on lower elevation lands and is constructed atop a wide concrete foundation/pedestal. Additional poles are visible outside of the extents of Figure 5, and numerous transmission line are visible in the foreground at KOP 2. SMUD's Cordova Substation is also within the KOP 2 viewshed and sit slight to the right of frame captured in Figure 5. From this vantage point, the undeveloped project site appear slightly elevated relative to the trail/path, is covered with low grasses, and appears to feature a low chain-link fence along a portion of its western boundary.

4.2.3 Key Observation Point 3 – Sunridge Park

KOP 3 is located just off the paved pathway that meanders around the perimeter of the large turf area available at Sunridge Park. Park turf and the concrete pathway are visible in the immediate foreground of the view and with the exception of a slightly wider scene, the KOP 3 view is similar to the view available at KOP 1. Figure 6, Key Observation Point 3 – Sunridge Park, presents the existing landscape setting including the undeveloped (and slightly elevated) project site, electrical transmission infrastructure, and SMUD Cordova Substation. While not central in the available view at KOP 3, the existing substation is visible and along with the concentration of tall transmission poles near the fenced substation perimeter, electrical generation infrastructure marks the otherwise open landscape near Sunridge Park.

4.3 Scenic Vistas

Neither the Rancho Cordova General Plan nor the Sunridge Specific Plan establish or discuss designated scenic vistas within the City. Further, the project site does not contain any particularly notable or distinguishing features and is not publicly accessible such that the site would be considered a vista or provide opportunities for scenic views.

While the project vicinity includes undeveloped preserve lands that are open and visually appealing (long views to the distant and dark silhouettes of the Sierra Nevada Mountains may also be available from Sunridge Park, Douglas Road, and other public vantage points), the project site itself does not provide opportunities for scenic views and the public trail/path to the west of the project site is not considered a scenic vista for purposes of this report due to the lack of a particularly open view to preserve lands or distant mountains due to the elevated terrain of the project site (and surrounding terrain) and creek vegetation which routinely blocks distant mountains in views.

4.4 Scenic Highways

As previously discussed above in Section 3, the nearest officially designated state scenic highway, SR-160, is over 17 miles to the southwest from the project site and the nearest eligible state scenic highway, SR-49, is nearly 20

miles to the east of the project site. Therefore, there are no scenic highways in the vicinity that provide views to the project site. It should also be noted that the site is undeveloped and does not contain trees, rock outcrops, or historic buildings.

4.5 Light and Glare

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes out through windows. Secondly, light projects from exterior sources such as street lighting, security lighting, balcony lighting, and landscape lighting. "Light spill" is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility.

While there are no sources of lighting or glare on the project site, sources in the vicinity include street and park lighting, structure (residence) and associated decorative lighting, illuminated signs. While nighttime observations of the SMUD Cordova Substation did not occur during fieldwork conducted for this report, substations typically include motion-sensor lighting at entrance gates and/or at internal components to facilitate emergency nighttime work if needed.

5 Methodology

Scenic Vistas

For purposes of this report, scenic vistas are considered formally designated public vantage points offering views of primarily natural settings containing recognized scenic features or landscapes of special importance. As stated in Section 4.3 above, Rancho Cordova has not designated scenic vista in the City and project site itself does not provide opportunities for scenic views.

The concepts of view blockage, interrupted, and degradation are used to determine the severity of potential impacts to scenic vista. If views from public vantage points across the project site include recognized scenic features, project components are examined to determine the likelihood for view obstruction (i.e., view blockage), view interruption (i.e., intrusion on available view due to contrasting features), or degradation (i.e., decline in scenic quality).

Scenic Highways

Scenic highways includes those state facilities that have been officially designated or nominated for official designation through eligible status by Caltrans. If the project site is located within the viewshed of a scenic highway, then the potential for impacts to scenic highways is informed by the presence of existing scenic resources on the project site, project plans to avoid/protect or disturb existing scenic resources, and the visibility of scenic resource disturbance from an officially designated or eligible state scenic highway. Pursuant to CEQA Appendix G guidelines, scenic resources include trees, rock outcroppings, and historic buildings and may also include locally recognized scenic resources including oak trees, vineyards, and rolling hills.

Visual Character and Quality

Impacts to existing visual character and quality are determined through a comparison of pre- and post-development conditions on the project site. Specifically, the project is examined for potential contrast with existing onsite features and features in the surrounding area.

Lighting and Glare

The potential for lighting and glare impacts are evaluated based on a comparative review of pre- and post-development lighting and glare sources operating in the project area. If a project in an urban or developed area currently contains existing nighttime lighting and glare sources, then the likelihood for a project with comparable lighting to result in significant lighting and glare impacts (assuming the installation of standard control measures). On the other hand, if a dissimilar project in a low-lighting rural environment with excessive or unusually bright lighting is implemented, then the likelihood for potentially significant lighting and glare impacts would be high.

6 Impact Analysis

Significance Criteria

In accordance with significance thresholds for aesthetics established in Appendix G of the CEQA Guidelines, a significant impact may occur if the Project:

- a) Would have a substantial adverse effect on a scenic vista?
- b) Would 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?

As discussed in Section 4.4, above, the project site is not located adjacent to or in the vicinity of a state scenic highway. As such, the Project would have no impact related to the potential to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway. Therefore, this impact would be **less than significant**. This issue will not be addressed further.

Analysis

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

Neither the Rancho Cordova General Plan nor the Sunridge Specific Plan establish or discuss designated scenic vistas within the City. Further, the project site does not contain any particularly notable or distinguishing features and is not publicly accessible such that the site would be considered a vista point or provide opportunities for scenic views.

While the project site is not designated as a scenic vista and is not a public viewing location, the project site is visible from Canyonlands Drive and views from the road where it dead-ends (i.e., immediately north of the project site) include the open, undeveloped grasslands and aquatic communities of the adjacent preserve. The project site also visible from Douglas Road that, in addition to the preserve, includes multiple transmission lines and support poles (the undeveloped project site is also viewed in-line with the adjacent SMUD Cordova Substation). While neither Canyonlands Drive and Douglas Road are designated as scenic by the City, views from these roads include undeveloped and open preserve lands that are considered to be visually pleasing. In addition to gen-tie poles, vertical elements at the collector substation, the upper profile of battery energy storage system enclosures, and outdoor electrical equipment, proposed site fencing would be detectable in southerly views from the dead-end of Canyonlands Drive. The 12-foot high wall along the western boundary of the project site would be visible but would be backscreened by residential development of the Sunridge residential neighborhood (views are relatively short in length and lack particularly scenic elements beyond primarily undeveloped lands in the immediate foreground). Project components would alter and shorten the existing available view through the construction of foreground elements; however, the existing landscape and views have already been altered by residential development, the SMUD Cordova Substation, and electrical transmission infrastructure. Specifically, the existing substation and transmission infrastructure are focal elements in available views and block from view the open, undeveloped terrain further to the south. Similarly, as viewed from Douglas Road, the project site and proposed BESS facility would be back screened by existing substation and transmission lines and thus, views towards the project site lack the open, undeveloped traits of nearby preserve lands to the east and further south. Therefore, due to the presence of the Cordova Substation and transmission line infrastructure, the introduction of project components including numerous battery energy storage enclosures (approximately 50 feet long by 10 feet wide by 15 feet high), collector substation (various vertical components), and gen-tie poles (approximately 75 – 100 feet high), to the undeveloped site would not substantially obstruct or interrupt existing available views and would not have a substantial effect on a designated or informal scenic vista. Impacts would be **less than significant**.

b) Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

Pursuant to Public Resources Code 21071, Rancho Cordova does not qualify as an “urbanized area” as the current population is less than 100,000 persons and the city is not contiguous with one or two contiguous incorporated cities, which combined, would equal at least 100,000 persons. Rancho Cordova is contiguous with unincorporated County lands/areas. Therefore, the visual character and quality impact analysis presented below focused on whether the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Development of the project would convert the site from primarily undeveloped land with two transmission line poles (tubular steel; approximately 100 feet high) to a battery energy storage facility with numerous BESS enclosures,

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outdoor electrical equipment, a collector substation, gen-tie to the adjacent SMUD Cordova Substation, fencing, and motion-sensitive lighting. To aid in the assessment of impact severity associated with development of the project, visual simulations of the project depicting anticipated visual change as experienced from KOP 1, KOP 2, and KOP 3 have been prepared and are referenced in the discussion below.

Key Observation Point 1 – Canyonlands Drive

As viewed from KOP 1, the perimeter walls/fencing along the western and northern project boundary would be prominent in the foreground. See Figure 7, Key Observation 1 – Visual Simulation. With the introduction of walls/fencing (and vertical project elements visible above the 12-foot wall including the horizontal lines of the battery energy storage system enclosures, vertical gen-tie poles and horizontal conductor/lines between the collector substation and adjacent Cordova Substation, and outdoor electrical equipment including collector substation components), the character of the undeveloped site and quality of the existing view would be visibly changed and reduced. Specifically, the remaining openness present in the view would be altered by the introduction of repeating rows of battery energy storage structure enclosures and a solid sound wall. In addition, the memorability of the existing view would be reduced by the construction of a 12-foot high, linear element (i.e., the perimeter wall) in the foreground. See Figure 7. The monotonous and stark characteristics of the solid sound wall would be softened and obscured by implementation of a dense landscaping plan consisting of large street and accent trees (planted 40 feet on center) that would be accented by vertical trees and shrubs (planted 20 feet on center) that would parallel the proposed noise wall. See Figure 2. Therefore, while proposed development would alter existing character, project elements would be screened from viewers by perimeter landscape plantings and the KOP 1 landscape already includes multiple transmission lines and the Cordova Substation that includes components similar in character to those of the proposed BESS facility. Therefore, with perimeter screening of project components and due to the existing presence of electrical transmission and generation infrastructure (and the prominence of these features in the landscape), the introduction of the project would not substantially degrade the existing visual character or quality of the site and its surroundings. Visual change would be moderate but, due to the low sensitivity of the KOP 1 landscape due to previous electrical infrastructure development, impacts associated with development of the project would be **less than significant**.

Key Observation Point 2 – Public Trail/Path

Similar to the view available at KOP 1, the captured view at KOP 2 looks towards the slightly elevated project site and includes both natural and developed features. While the creek corridor and associated vegetation is prominent in the immediate foreground, the prominence of electrical infrastructure (i.e., transmission lines and support poles) increases west of the creek corridor. See Figure 8, Key Observation Point 2. The introduction of project features to the site (most notably, the 12-foot-high wall along the western site boundary and vertical elements visible above the top of the wall) would alter the character of the site; however, as shown in Figure 8, the landscape has been noticeably altered by previous development and the project would include elements of a similar scale. Further and while not detectable in the KOP 2 shown on Figure 8, the existing Cordova Substation and numerous racks, bays, transformers, and a control building is immediately adjacent to the project and just out of frame of Figure 8. Thus, the existing view from the trail represented by KOP 2 includes the substation and related visual effects. The introduction of the 12-foot-high wall would not result in the blockage of a scenic resources) and while a portion of the background sky would be blocked, the installation of a solid wall would not substantially degrade existing

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character. Further, the hard form and line of the sound wall as experienced from KOP 2 would be softened and the continuous massing of the feature would be broken up by the proposed landscape plan. As shown in Figure 8, mature landscaping adjacent to the sound wall would add an element of interest to the site's western boundary and would visually connect with existing trees and shrubs in the immediate foreground of the view. From this specific vantage point, visual change would be moderate but, due to visual screening of the Project associated with the proposed landscape plan and a reduced sensitivity to visual change associated with the presence of previous electrical infrastructure development, impacts associated with development of the project would be **less than significant**.

Key Observation Point 3 – Sunridge Park

As described above in Section 4.2.3, the KOP 3 view is similar to the view available at KOP 1. Compared to KOP 1, KOP 3 presents a slightly wider frame/view and includes additional electrical transmission poles and provides slightly enhanced visibility to the Cordova Substation. From this specific vantage point, the introduction of the perimeter wall and vertical components that would extend above the wall to be visible (including battery energy storage system enclosures, gen-tie poles and horizontal conductor/lines, and outdoor electrical equipment including collector substation components) would be evident and alter the existing character of the site. See Figure 9, Key Observation Point 3. However, implementation of a dense landscape plan would break up the massing and stark exterior of the proposed sound wall and would obscure battery energy storage system enclosure and other interior project components from view. Further, the anticipated severity of visual change in the KOP 3 would be tempered by the presence of transmission line infrastructure and the Cordova Substation. While partially blocked and cut off from the baseline photograph included in Figure 9, electrical transmission and substation infrastructure is visually prominent in southeasterly views available from the perimeter path at Sunridge Park. Therefore and within the context of the existing landscape setting, the introduction of the project would result in **less than significant impacts** to existing visual character.

Summary

As demonstrated in the analysis presented above and depicted visual simulations from identified key view locations, development of the proposed BESS facility would alter the existing character of the primarily undeveloped project site. The introduction of numerous battery energy storage system enclosures, outdoor electrical equipment, gen-tie infrastructure, and perimeter walls/fencing would transform the site to a developed facility. However, project development is proposed adjacent to a visually prominent electrical substation and near an existing transmission corridor featuring several transmission lines and an assortment of lines and poles. As shown in the visual simulations, these existing features have altered the visual landscape and while project components include solid perimeter features, the inclusion of these features would not result in substantial blockage of a scenic resource/features. Therefore and based on the KOP assessment prepared above, development of the project would not substantially degrade the existing visual character or quality of the site and its surrounding and impacts would be **less than significant**.

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- c) **Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Lighting

As proposed, permanent motion-sensitive, directional security lights would be installed at the project site 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. In addition, lighting typical of residential development/neighborhoods is installed to the west of the project site and existing lighting sources (fixed) including streetlights, security and decorative fixtures, and structure lighting operates nearby during nighttime hours. Although the installation of lighting on the undeveloped project site would be a new source of lighting and potentially, glare, motion-sensitive lighting would avoid the need for steady and unnecessary illumination of the site and would reduce potential lighting impacts. In addition, the installation of shielded, downward directed lighting would reduce the potential for light trespass beyond the project boundary and skyglow (or upward lighting). Further, all lighting installed at the project site would conform to Chapter 23.725 of the City's zoning code that requires lighting to be "designed, installed, directed, shielded, and maintained to prevent glare, light trespass, and light pollution" (Rancho Cordova Municipal Code Chapter 23.725). Based on the analysis presented above, potential lighting impacts associated with operation of the project would be **less than significant**.

Glare

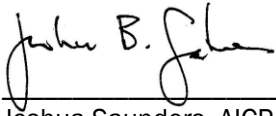
With the exception of battery energy storage system enclosures, batteries and racks, and inverters, components on the project site would generally be similar to those on the adjacent SMUD Cordova Substation. Thus, potential glare introduced by the project would be similar in kind to the potential glare created by components at the adjacent SMUD Cordova Substation. Battery energy storage system enclosures are typically constructed of steel and racks housing batteries are typically made of aluminum or steel. Inverters are also typically housed in rectangular, metallic structures. While metallic components could potentially reflect incoming sun and generate glare capable of being received at offsite locations, metal materials used in the exterior of these components are typically painted and/or finished such that glare potential is reduced. Further, and due to the elevated location of the project site relative to the nearest residential land uses to the west (and due to the inclusion of a 12-foot high solid wall along the site's western boundary), reflected light of battery energy storage system enclosures, batteries and racks, and inverters would be blocked from view of the nearest residents. Due to distance, the relatively wide angle of available views, and the presence of the existing SMUD Cordova Substation and electrical transmission line infrastructure in the landscape, project operations would not substantially affect daytime views in the area available from the residentially developed area/neighborhood to the east of the project site (i.e., east of the preserve and east of Cypress Grove Drive). Lastly and as discussed in the lighting discussion above, all lighting would be shielded and would typically be off as motion-sensor technology is proposed. The use of shields, motion-sensor technology, and the installation of a limited number of fixtures on site would reduce the potential for onsite lighting to produce substantial glare capable of adversely affected nighttime views.

Based on the analysis presented above, potential glare impacts associated with operation of the project would be **less than significant**.

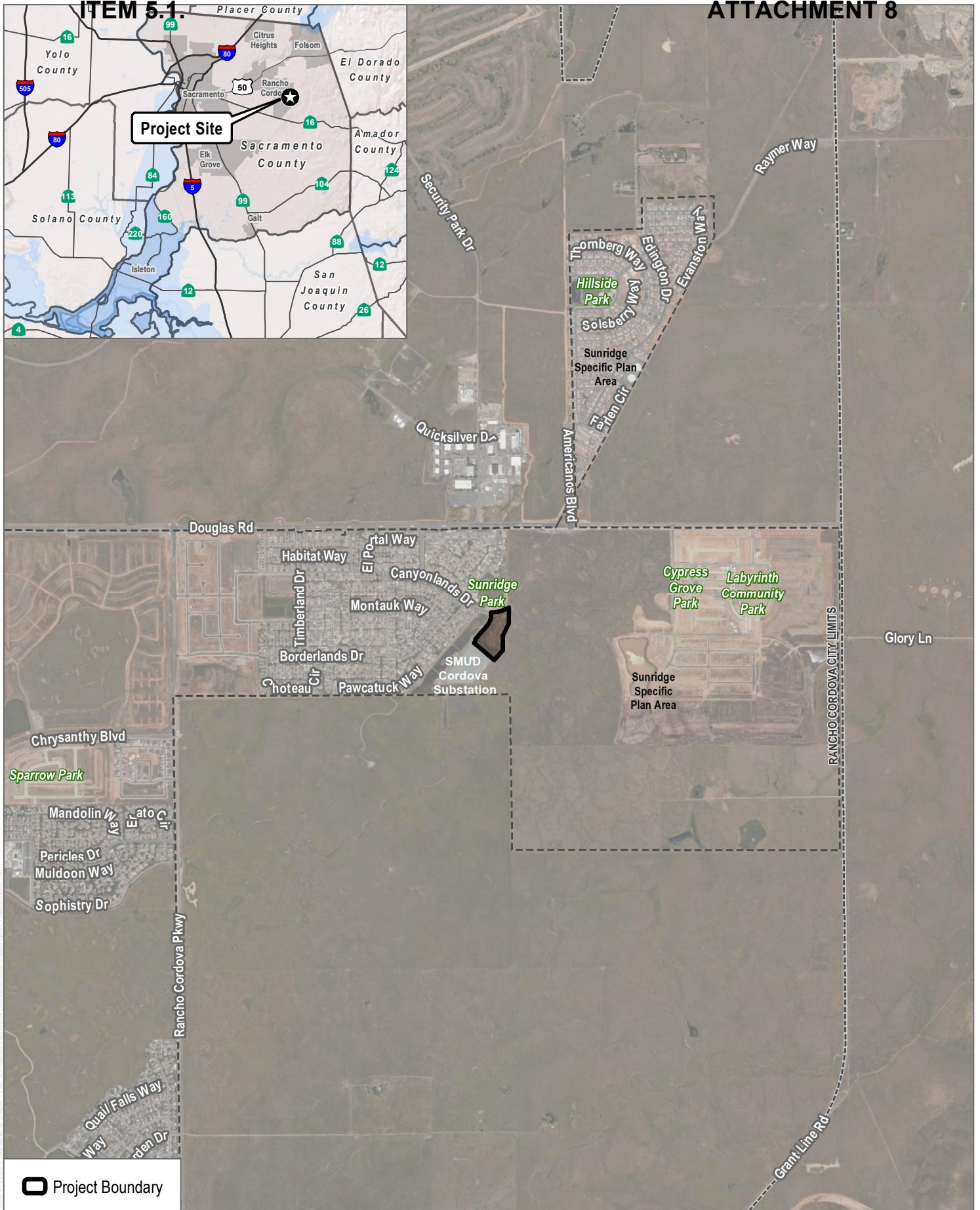
TO: KELEIGH WRIGHT

SUBJECT: SUNRIDGE ENERGY STORAGE PROJECT - VISUAL IMPACT ASSESSMENT

Sincerely,

A handwritten signature in black ink, appearing to read "Joshua B. Saunders". The signature is fluid and cursive, with the first name "Joshua" and last name "Saunders" clearly visible. It is positioned above a horizontal line.

Joshua Saunders, AICP
Environmental Planner



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

FIGURE 1
Project Location

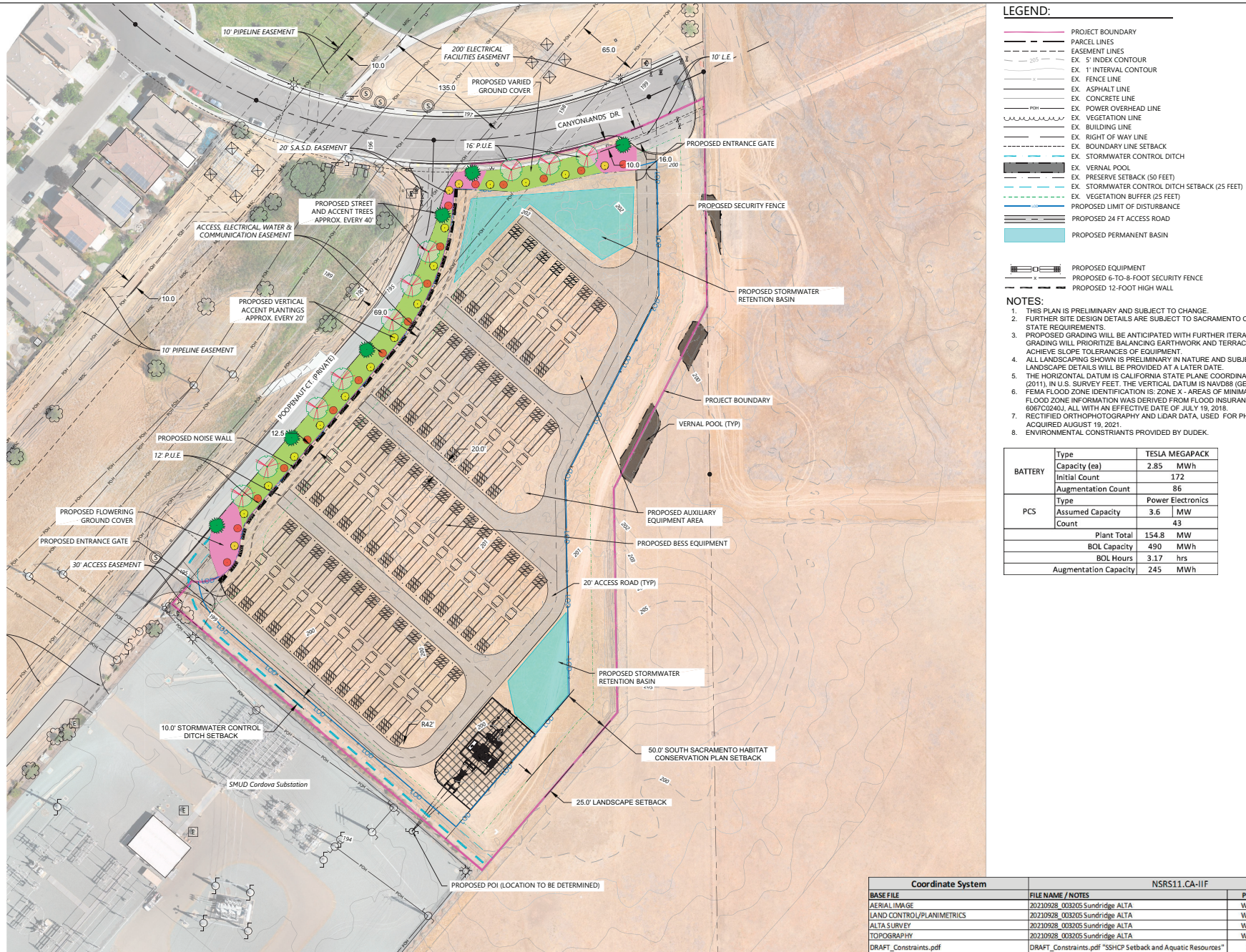


FIGURE 2

Preliminary Site Plan

Sunridge Energy Storage Project Visual Impact Assessment



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



Existing Conditions

FIGURE 4

Key Observation Point 1 - Canyonlands Drive

Sunridge Energy Storage Project Visual Impact Assessment



Existing Conditions

FIGURE 5

Key Observation Point 2 - Public Trail/Path

Sunridge Energy Storage Project Visual Impact Assessment



Existing Conditions

FIGURE 6

Key Observation Point 3 - Sunridge Park

Sunridge Energy Storage Project Visual Impact Assessment



Photographic Simulation of Project

FIGURE 7

Key Observation Point 1 - Visual Simulation

Sunridge Energy Storage Project Visual Impact Assessment



FIGURE 8

Key Observation Point 2 - Visual Simulation

Sunridge Energy Storage Project Visual Impact Assessment



Photographic Simulation of Project

FIGURE 9

Key Observation Point 3 - Visual Simulation

Sunridge Energy Storage Project Visual Impact Assessment

MEMORANDUM



ITEM 6.1.

DATE: June 28, 2023
TO: Planning Commission Members
FROM: Darcy Goulart, Planning Manager
SUBJECT: **PLANNING COMMISSION RULES AND PROCEDURES DISCUSSION**

RECOMMENDATION

No formal recommendation is being made. The Planning Commission should discuss what they would like to be included in their Rules and Procedures and provide staff with direction to prepare the document for either a follow-up discussion with the Planning Commission prior to City Council approval or to schedule the item for approval at a regularly scheduled City Council meeting.

RESULT OF RECOMMENDED ACTION

Staff will prepare the agreed upon rules and procedures and bring it back to Planning Commission for their recommendation to City Council or take it directly to City Council for approval if directed to do so.

BACKGROUND

At the April 12, 2023 Planning Commission meeting there was discussion on the Chair/Vice Chair selection process and a meeting cut off time. There was interest from the Planning Commission to look at establishing rules of procedure. Pursuant to Chapter 2.30 Planning Commission, Section 2.30.080 Rules, rules of procedures which govern the conduct of hearings and other business of the commission are subject to City Council approval. Attachment 1 of this staff report are the adopted Rules and Procedures of the City Council. Topics include, but aren't limited to Regular Meetings, Special Meetings, Attendance, and Rules of Debate.

The two items staff heard at the April 12, 2023 meeting that the Planning Commission was interested in include are listed below:

- Uninitiated Items: Unless the Planning Commission adopts a motion to extend the meeting, any item that is not initiated before 10:00 p.m. will be continued to the next regular meeting agenda of the Planning Commission.
- Chair/Vice Chair Rotation: The Vice Chair from the previous calendar year will assume the role as Chair and a new Vice Chair will be nominated by the Planning Commission.

The Planning Commission should discuss and consider including similar Rules and Procedures for conducting commission meetings, as the City Council. Upon direction from the Planning Commission, staff will prepare the rules and procedures for additional review by the Commission at a later date and/or schedule the item for a City Council meeting for approval.

ATTACHMENT(S)

1. Resolution 31-2003_CC Rules and Procedures

CITY OF RANCHO CORDOVA

RESOLUTION NO. 31-2003

**A RESOLUTION OF THE CITY OF RANCHO CORDOVA
ESTABLISHING RULES FOR THE CONDUCT OF MEETINGS
OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA**

WHEREAS, Government Code § 36813, authorizes a City Council to establish rules for the conduct of its meetings.

NOW, THEREFORE, the City Council of the City of Rancho Cordova resolves as follows:

1. REGULAR MEETINGS

- a. Time. Regular meetings of the City Council shall be held on the first and third Monday of each month at the hour of 6:30 p.m., except that Closed Session Items shall be held at 6:00 p.m. Whenever the day fixed for any regular meeting of the Council falls upon a day designated as a holiday, such meeting will be held at the same hour on the next succeeding day not a holiday.
- b. Place. All regular meetings of the Council shall be held at the City Council Chambers, as designated by Ordinance.
- c. Public. All meetings of the Council shall be open to the public; provided, however, the City Council may hold closed sessions as provided by the laws of the State of California.

2. SPECIAL MEETINGS

A special meeting may be ordered at any time by the Mayor whenever in his/her opinion the public business may require it or upon the written request of any three members of the Council. Whenever a special meeting shall be called, written notice of such meeting shall be delivered personally or by any other means by the City Clerk to each member of the Council and to each local newspaper of general circulation and radio/television station requesting notice in writing. Such notice must be delivered at least twenty-four (24) hours before the time of such meeting as specified in the notice. The notice shall specify the time and place of the special meeting and the business to be transacted or discussed. No other business shall be considered at such meetings by the Council.

The agenda for special meetings shall contain the information set forth in Section 3(a)-(d). below. At least twenty-four (24) hours before each special meeting, the City Clerk shall post a copy of the agenda, including the call and notice of the special meeting, at the same location identified in Section 3 below.

3. AGENDA

In order to facilitate the orderly conduct of the business of the Council, the City Clerk shall be notified no later than 11:00 a.m., on the Monday one week preceding a regular Council meeting of all reports, communications, ordinances, resolutions, contract documents or other matters to be submitted to the Council at such meeting. Immediately thereafter, the City Clerk shall arrange an agenda of such matters according to the order of business and furnish each member of the Council, the City Manager, City Attorney, City Department Heads and Staff with a copy of the agenda packet prior to the Council meeting and as far in advance of the meeting as time for preparation will permit.

The agenda prepared by the City Clerk shall, at a minimum, include:

- a. The date of the meeting;
- b. The time of the meeting;
- c. The location of the meeting;
- d. A brief general description of each item of business to be transacted or discussed at the meeting;
- e. Specified period of time for members of the public to address the Council on items of interest to the public that are within the jurisdiction of the Council, including a provision that no person may speak longer than five (5) minutes, and including language that the Council can only briefly respond with questions, refer to Staff, or place on a future agenda; and
- f. A specified section under which Councilmembers and Staff may present informational only reports.

At least seventy-two (72) hours before each regular meeting, the City Clerk shall post a copy of the agenda at City Hall (3121 Gold Canal Drive).

The City Clerk shall execute a declaration of posting which shall be filed in the Office of the City Clerk.

The City Clerk shall so mark or denote "Consent Calendar" items on the agenda to identify those items on the agenda which can reasonably be expected to generate no discussion by members of the City Council, City Staff or interested persons in the audience. The Council shall consider all of the items on the Consent Calendar portion of the agenda at one time by a vote after a motion has been duly made and seconded. If any member of the City Council, City Staff or interested person in the audience requests that a consent item be removed from the list, such item shall be taken up for consideration and disposition in the order listed on the agenda.

4. PRESIDING OFFICER

The Mayor shall preside at all City Council meetings and perform such other duties consistent with his/her office as may be imposed by the Council. The Mayor shall be entitled to vote, but shall possess no veto power. The Mayor shall be recognized as the official head of the City for all ceremonial purposes, by the courts for the purpose of serving civil process and by the Governor for military purposes. In the time of public danger or emergency, the Mayor, with the consent of the Council, shall cause order to be maintained and enforce laws.

The Mayor shall preserve strict order and decorum at all regular and special meetings of the Council. The Mayor shall state every question coming before the Council, call for the vote, announce the decision of the Council on all subjects and decide all questions of order, subject however, to an appeal of the Council, in which event a majority vote of the Council shall govern and conclusively determine such question of order. The Mayor shall sign all Ordinances adopted by the Council during his/her presence. In the event of the absence of the Mayor, the Mayor Pro Tempore shall sign Ordinances as then adopted.

5. CALL TO ORDER

The Mayor, or in his/her absence, the Mayor Pro Tempore, shall take the chair precisely at the hour appointed for the meeting, and shall immediately call the Council to order. In the absence of the Mayor or Mayor Pro Tempore, the City Clerk shall call the Council to order, whereupon a temporary chair shall be elected by the members of the Council present. Upon the arrival of the Mayor or Mayor Pro Tempore, the temporary chair shall immediately relinquish the chair upon the conclusion of the business immediately before the Council.

6. ATTENDANCE

Before proceeding with the business of the Council, the City Clerk shall enter into the minutes the names of the members present or absent. No formal roll call need be taken.

7. QUORUM

A majority of the members of the Council shall constitute a quorum for the transaction of business, but a lesser number than a quorum may adjourn from time to time. The Council may adjourn ~~any regular, adjourned regular, special or adjourned special meeting to a time and place specified in the~~ order of adjournment. If all members are absent from any regular or adjourned regular meeting, the City Clerk may declare the meeting adjourned to a stated time and place. If he/she does, he/she shall cause written notice of the adjournment to be given in the same manner as provided for special meetings. A copy of the order or notice of adjournment shall be posted in the same location identified in Section 3 above and other places designated by the Council within twenty-four (24) hours after the time of adjournment. Whenever a regular or adjourned regular meeting is adjourned as provided in this section, the resulting adjourned regular meeting is a regular meeting for all purposes. When an order of adjournment of any meeting fails to state the hour at which the adjournment meeting shall be held, it shall be held at the hour specified for regular meetings.

8. ORDER OF BUSINESS

Promptly at the hour set on the day of each regular meeting, the members of the Council, City Clerk (or Designee) and City Manager (or Designee) shall take their regular stations in the Council Chambers, and the business of the Council shall be taken up for consideration and disposition in the following order, except, with the unanimous consent of the Council, matters may be taken up out of order:

- Call to Order (Closed Session)
- Call to Order & Pledge of Allegiance to the Flag

- Report on Closed Session Action
- Oral Communications
- Consent Calendar
- Written Communications
- Public Hearings
- Unfinished Business
- New Business
- Other Business (Council/Staff Informational Only Reports/Matters Too Late for the Agenda)
- Adjournment

9. MATTERS TOO LATE FOR THE AGENDA

- a. No action or discussion shall take place on any item not appearing on the agenda for a regular meeting as posted, unless
 - (1) The City Council determines by majority vote that an emergency situation exists, as defined in Government Code §54956.5;
 - (2) The City Council determines by vote of four (4) out of five (5) members (or by a unanimous vote of the members of the Council if only 4 or only 3 members are present) that there is a need to take immediate action and that the need for action came to the Council's attention after the agenda was posted;
 - (3) The item was included in a posted agenda for a prior meeting held not more than five (5) calendar days prior to the meeting at which the item is acted upon.
- b. When an item not on an agenda is raised by a member of the public, the City Council may briefly respond, may ask questions for clarification, provide a reference to Staff or other resources, or request Staff to report back at a subsequent meeting. Furthermore, a member of the City Council may take action to place a matter of business on a future agenda.

10. READING OF MINUTES

Unless the reading of the minutes of a Council meeting is requested by a member of the Council, such minutes may be approved without reading if the City Clerk has previously furnished each member with a copy thereof.

11. RULES OF DEBATE

- a. Presiding Officer may debate. The Mayor or such other member of the Council as may be presiding may move, second and debate from the chair, subject only to such limitations of debate as are by these rules imposed upon all members. He/she shall not be deprived of any of the rights and privileges of a Councilmember by reason of his/her acting as the Presiding Officer.
- b. Getting the floor. Every member desiring to speak shall address the Mayor, and

upon recognition by the Mayor, shall confine himself/herself to the question under debate.

- c. Interruptions. A member once recognized, shall not be interrupted when speaking unless it be to call him/her to order, or as herein otherwise provided. If a member, while speaking, be called to order, he/she shall cease speaking until the question of order be determined, and if in order, he/she shall be permitted to proceed.
- d. Privilege of closing debate. The Councilmember moving the adoption of an Ordinance or Resolution shall have the privilege of closing the debate.
- e. Motion to reconsider. A motion to reconsider any action taken by the Council may be made at any time. Such a motion must be made by one of the prevailing side, but may be seconded by any member, and may be made at any time and have precedence over all other motions or while a member has the floor; it shall be debatable. Nothing herein shall be construed to prevent any member of the Council from making or remaking the same or other motion at a subsequent meeting of the Council.
- f. Remarks of Councilmember. A Councilmember may request through the Mayor, the privilege of having an abstract of his/her statement on any subject under consideration by the Council entered in the minutes. If the Council consents thereto, such statement shall be entered in the minutes.
- g. Synopsis of Debate. The City Clerk may be directed by the Mayor with the consent of the Council, to enter in the minutes a synopsis of the discussion of any question coming regularly before the Council.
- h. Rules of Order. Except as otherwise provided in this Resolution, the current edition of "Roberts Rules of Order" shall govern the conduct of the meetings of the City Council.

12. ADDRESSING THE COUNCIL

Any person desiring to address the Council at a meeting shall first secure the permission of the Mayor to do so; provided, however, that under the following headings of business, any qualified and interested person shall have the right to address the Council upon obtaining recognition by the Mayor.

- a. Written Communications. Interested persons or their authorized representative may address the Council by written communication on any matters concerning the City's business, or any matters over which the Council has control. Such written communication shall be delivered to the City Clerk no later than 11:00 a.m., of the Monday immediately preceding the regular Council meeting for which such written communication is intended.
- b. Oral Communications. Interested persons in the audience or their authorized representatives may address the Council by oral communications on any matters over which the Council has control; provided, however, that preference shall be given to those persons who have notified the City Clerk in advance of their desire to speak in order that the same may appear on the agenda of the Council.

13. ADDRESSING THE COUNCIL AFTER MOTION IS MADE

After a motion is made by the Council, no person shall address the Council without first

securing the permission of the Mayor to do so.

14. MANNER OF ADDRESSING COUNCIL

Each person addressing the Council shall stand at the podium and give his/her name and address in an audible tone of voice for the record. A Speaker Slip shall be completed in order to facilitate preparation of the minutes. All remarks shall be addressed to the Council as a body and not to any member thereof. No person, other than the Council and the person having the floor, shall be permitted to enter into any discussion, either directly or through a member of the Council, without the permission of the Mayor. No question shall be asked of a Councilmember except through the Mayor.

15. VOTING

- a. Members of the Council shall vote by a "voice vote" on all Ordinances, Resolutions and other matters, unless a roll call vote is required by law or is requested by a Councilmember. Silence shall be recorded as an affirmative vote. The Mayor shall announce the result of the vote. The City Clerk shall show on Ordinances and Resolutions the names of Councilmembers voting "Aye" and "No."
- b. The vote on any matter being considered by the Council may be delayed by the Mayor until all members of the Council present for a meeting, and not excused as herein provided, are actually present at the Council dais.
- c. A member of the Council who has a conflict of interest regarding any matter being considered by the Council shall declare the conflict and excuse himself/herself from participating in the Council's deliberations and decisions regarding that matter.

16. ORDER AND DECORUM

- a. By Councilmembers. While the Council is in session, the members must preserve order and decorum. A member shall not, by conversation or otherwise, delay or interrupt the proceedings or the peace of the Council or disturb any member while speaking or refuse to obey the orders of the Council or Mayor, except as otherwise herein provided.
- b. By Persons. Any person making personal, impertinent, or slanderous remarks or who shall become boisterous while addressing the Council or who shall, by conversation or otherwise, delay or interrupt the proceedings or the peace of the Council or disturb any member while speaking or refuse to obey the orders of the Council or the Mayor shall be forthwith, by the Mayor, barred from further audience before the council, unless permission to continue is granted by a majority vote of the Council.
- c. Enforcement of Order and Decorum. A law enforcement officer shall be designated as Sergeant-at-Arms of the Council meetings when requested by the Mayor. He/she shall carry out all orders and instructions given at the Council meeting. Upon instruction of the Mayor, it shall be the duty of the Sergeant-at-Arms, as to any person who violates the order and decorum of the meeting, to

- remove and bar such person from the Council meeting. Violations of the order and decorum of a Council meeting is a misdemeanor.
- d. Smoking. Smoking is prohibited at all times in all City-owned facilities.

17. SPECIAL COMMITTEES/TASK FORCES

All special committees/task forces shall be appointed by the Mayor, subject to approval of the City Council.

18. COUNCILMEMBER VACANCIES

When a vacancy occurs on the City Council, in the office of Councilmember or Mayor, and the Council determines to consider filling the vacancy by appointment, the Council will make such appointment only at a meeting at which all remaining Councilmembers (including the Mayor) are present. This rule shall not preclude the Council from calling a special election to fill the vacancy or from adopting an ordinance to fill the vacancy pursuant to Government Code §36512 at a meeting at which one of the remaining Councilmembers (including the Mayor) is absent.

19. PROTESTS

Any Councilmember shall have the right to have the reasons for his/her dissent from, or protest against, any action of the council entered in the minutes.

20. ADJOURNMENT

~~A motion to adjourn shall always be in order and decided without debate.~~

21. RULES AVAILABLE FOR PUBLIC REVIEW

A copy of this Resolution shall be available at all meetings of the Council for review by the public.

ADOPTED, THIS 1st day of July, 2003 by the following vote:

AYES: Council Members: McGarvey, Budge, Sander, Cooley, Roberts

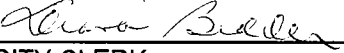
NOES: None

ABSTAIN: None

APPROVED:


MAYOR

ATTEST:


CITY CLERK

627537