**COUNTY OF SACRAMENTO**
**CALIFORNIA**

To: **Design Review Committee** **10 Feb. 2022**

From: Planning and Environmental Review

Subject: PLNP2021-00191. Coyote Creek Agrivoltaic Ranch (UPB-SPP-DRS). Use Permit, Special Development Permit and Design Review to establish a new 200-megawatt ground-mounted solar array facility, a 400 mW BESS, and related infrastructure on multiple parcels (totaling approximating 2,555 acres), including seasonal sheep grazing (i.e., agrivoltaic). The project proposes to maintain the active Williamson Act contracts. Located on an irregularly shaped aggregate ~4 square miles of undeveloped land along Scott Road, extending from about 7,000-ft south of the White Rock Road-Scott Road intersection and extending southwards ~3.4 miles to about 900 feet south of the Boys Ranch Road-Scott Road intersection, in the Cosumnes community. Applicant: Sacramento Valley Energy Center, LLC; c/o Daniel Menahem, D.E. Shaw Renewable Investments.
APNs: Multiple, 55 contiguous parcels.

Supervisorial District(s): 4 - Frost

Contact: Nate Doberneck, (916) 874-2562, doberneckn@saccounty.net

**Details of Request:**

1. A **Use Permit** to allow an approximately 200-megawatt photovoltaic solar energy generating facility (Commercial Solar Facility, Level II) and 400 mW BESS, on multiple parcels totaling approximately 2,555 acres, in the AG-80, AG-80 (F) (Flood Combining), M-2, and SPA (Aerojet Special Planning Area, *Sacramento County Zoning Code* Section 508-300).

2. A **Special Development Permit** to allow:
   a. Reduced setbacks of zero (0) feet from internal property boundaries for solar arrays
   b. Internal access roadways to be dirt rather than constructed with a dust free surface
   c. Alternative landscape buffering materials

3. A **Design Review** to determine compliance with the Sacramento County Countywide Design Guidelines.

**Applicant:**
Sacramento Valley Energy Center, LLC
c/o D.E. Shaw Renewable Investments
1166 Avenue of the Americas
New York, NY 10036
Contact: Daniel Menahem
daniel.menahem@deshaw.com
(202) 390-7772

**Owner:**
Barton Mosher Sacramento Ranches LP
c/o Natural Resources Group
P.O. Box 1076
West Sacramento, CA 95691
Contact: Forest Halford
fhalford@natural-resources-group.com
(916) 214-6722

County of Sacramento
Office of Planning and Environmental Review (PER)
827 7th Street, Room 225
Sacramento, CA 95814
(916) 874-6141

## General Application Form

This application form must accompany all Planning Entitlement requests.
Additional pages are required as indicated below.
Specific application requirements are detailed on the Application Instructions and Checklist. It is the applicant's responsibility to ensure that the application package is complete and accurate.

## Application Requests

(Check all that apply; a supplemental application is required for items marked with an *)

- ☐ General Plan Amendment
- ☐ Community Plan Amendment
- ☐ Rezone*
- ☐ Tentative Subdivision Map
- ☐ Tentative Parcel Map
- ☐ Design Review*
- ☐ Minor Use Permit*
- ■ Conditional Use Permit
- ■ Special Development Permit*
- ☐ Development Plan Review
- ☐ Tentative Map Extension
- ☐ Other
- ☐ This request is part of a pending or approved application Control Number:

| | |
|---|---|
| Site address: **Scott Road** | |
| Assessor's Parcel Number(s)[1]: **See attached.** | Gross Acres: See attached |
| Project Name: **Coyote Creek Agrivoltaic Ranch** | |

**Contact Information**

Indicate Billing Party in check box below

| | | | | |
|---|---|---|---|---|
| ☑ | Applicant | Name: Sacramento Valley Energy Center, LLC | | Contact: Daniel Menahem |
| | | Address: 1166 Avenue of the Americas | | City: New York |
| | | State/Zip: NY 10036 | Email: daniel.menahem@deshaw.com | Phone: 202-390-7772 |
| ☐ | Property Owner or Agent | Name: Barton Ranch, LLC | | Contact: Forest Halford |
| | | Address: PO Box 1076 | | City: |
| | | State/Zip: CA 95691 | Email: fhalford@natural-resources-group.com | Phone: 916-214-6722 |
| ☐ | Other | Name: Gillum Consulting, Inc | | Contact: Jim Gillum |
| | | Address: 11358 Amalgam Way, No. 9 | | City: Gold River |
| | | State/Zip: CA 95670 | Email: jim@gillumco.com | Phone: 916-388-8900 |

☐ Engineer ☐ Architect ☐ Developer ☑ Other Consultant

| | | | | |
|---|---|---|---|---|
| ☐ | Other | Name: Bona Terra Energy, LLC | | Contact: Robert Ferrara |
| | | Address: 26895 Aliso Creek Rd, Ste B-963 | | City: Aliso Viejo |
| | | State/Zip: CA 92656 | Email: robert.ferrara@bona-terra.com | Phone: 951-315-6229 |

☐ Engineer ☐ Architect ☑ Developer ☐ Other _____

[1] *Parcel numbers may be obtained from the Assessor's website at www.assessor.saccounty.net, by calling their office at* ***(916) 875-0700,*** *or by visiting in person at* ***3701 Power Inn Road, Suite 3000, Sacramento, CA.***

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## Legal Authority and Consent to File Application

**Fee Consent and Other Acknowledgements**

An initial below indicates that you understand and agree to the item. If you do not understand an item please ask the intake planner for an explanation.

HM _____ I understand that if the initial entitlement fee is a deposit, actual costs will be based on set hourly rates and actual **time and materials** used. Please refer to the Planning Fee Schedule to determine if your selected entitlements will be subject to a flat fee or time and materials.

HM _____ I understand that if actual costs exceed the amount of the deposit I will be billed for the additional costs based on **time and materials** used.

HM _____ I understand that additional fees for the preparation of an environmental document, which is required pursuant to the California Environmental Quality Act (CEQA), may be required.

HM _____ I understand that if necessary, I will receive a separate letter requesting a deposit for the environmental document. The typical range for an environmental document for small maps and use permits is **$6,000 – $12,000** depending on the specifics of the site and the complexity of the project. For projects with complex environmental issues the deposit amount could be substantially higher.

HM _____ I agree to pay all fees required to complete processing of this application. I understand that my application will not be deemed complete until the environmental document deposit has been received.

HM _____ I hereby give permission to County staff and other authorized personnel to conduct site inspections and post public notification signs on my property during the processing of this application. I consent to the posting of the address and contact information of all parties to this application on any website maintained by the County of Sacramento (the County).

HM _____ I agree not to alter the physical condition of the property during the processing of this application; such as, but not limited to removing trees, constructing or demolishing structures, altering streams, and/or grading or filling. I understand that such alteration of the property may result in the imposition of criminal, civil or administrative fines or penalties, or delay or denial of the project.

HM _____ Applicant shall defend, indemnify and hold harmless the County and its agents, including consultants, officers and employees from any claim, action or proceeding against the County or its agents, including consultants, officers or employees to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, including any claim for private attorney general fees claimed by or awarded to any party against the County, and shall also include the County's costs incurred in preparing the administrative record which are not paid by the petitioner. The County shall promptly notify the applicant of any claim, action or proceeding. Notwithstanding the foregoing, the County shall control the defense of any such claim, action or proceeding unless the settlement is approved by the applicant and that the applicant may act in its own stead as the real party in interest in any such claim, action or proceeding.

HM _____ I have checked the current Hazardous Waste and Substances Sites List pursuant to Government Code Section 65962.5(f). www.envirostor.dtsc.ca.gov/public/ The proposed project site is not included on the most recent list.

HM

I understand that pursuant to State Fish and Games Code Section 711.4, a filing fee is required for all projects processed with a Negative Declaration or Environmental Impact Report unless it has been determined by the California Department of Fish and Wildlife (CDFW) that the project will have no effect on fish and wildlife. The fees are collected by the County Office of Planning and Environmental Review (PER) for payment to the State. I understand that I will be notified of the fee amount upon release of the environmental document for the project.

HM

I understand that all applicants are required to provide a Neighborhood Outreach Plan. I will include my neighborhood outreach plan in my Project Description.

HM

I hereby agree that any drainage studies and/or drainage models that are provided to the County as part of the technical studies for this entitlement process will be provided with a license or other satisfactory release allowing the County to duplicate, distribute, and/or publish the studies and models to the general public without restriction. I understand that failure to provide such license or release to the satisfaction of the County may result in comment that the study and or model is inadequate to support the entitlement request.

The signature below signifies legal authority and consent to file an application in accordance with the information above. The signature also signifies that the submitted information and accompanying documents are true and accurate, and that the items initialed above have been read and agreed to.

**APPLICATIONS WILL NOT BE ACCEPTED WITHOUT SIGNATURE(S) OF LEGAL PROPERTY OWNERSHIP OR OFFICIAL AGENT/ AUTHORITY TO FILE** (check one)

☐ Ownership ☐ Contract to Purchase* ☐ Letter of Authorization* ☐ Power of Attorney*

*Must Attach Evidence

| | |
|---|---|
| Owners/Agents* Name: | Hy Martin, Authorized Signatory for Sacramento Valley Energy Center, LLC |
| Signature: | Date: 07/23/21 |

*Must Attach Evidence

| | |
|---|---|
| Owners Name: | |
| Signature: | Date: |

| | |
|---|---|
| Owners Name: | |
| Signature: | Date: |

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## Statement of County Responsibility

Please read the following statement outlining your responsibilities in the application hearing process.

An amendment to California Law (AB 884), adopted in 1977 and effective January 1, 1978, requires the County and all other jurisdictions in the state to take final action to approve or disapprove a request like yours within one year of the County's acceptance of your application as complete. In most cases, the County has approved requests like yours in significantly less time. However, the legislation now requires the County to "count down" the days so that requests are not inadvertently approved without approval by the Board of Supervisors or a designated body.

The law requires the County to inform you within 30 days after the application is submitted if your application is incomplete for our needs. If the application is complete and has all the information we need, the processing will be initiated immediately. If additional data is needed, a letter will be sent to you specifically stating the information needed. The staff will not certify that the application is complete until all the requested items have been submitted to the County and the required fees have been paid.

Your application will be heard in a public hearing. The County is required by law to notify all those property owners within 500 feet with a minimum of 30 property owners as shown on the latest assessment roll. This provides an opportunity for those most affected by a proposed use to provide input to the hearing body.

PLEASE BE ADVISED THAT THIS APPLICATION IS NOT APPROVED UNTIL THE ULTIMATE HEARING BODY HAS TAKEN ITS FINAL ACTION AND ALL APPEALS EXHAUSTED. ANY RECOMMENDATIONS OR COMMENTS BY STAFF OR ACTIONS BY INTERMEDIATE HEARING BODIES ARE ONLY ADVISORY AND SHOULD NOT BE RELIED ON FOR THE PURPOSES OF MAKING FINANCIAL COMMITMENTS.

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**Project Description and**
**Neighborhood Outreach Plan**

The Project Description is a comprehensive explanation of the applicant's project/request. It should include background information, reasoning, and the goal(s) of the project/request. The Neighborhood Outreach Plan describes how the applicant plans to inform the neighboring property owners (those within a 500 foot radius of the project site) about the project and address community concerns. Please see the application instructions for more information. Please attach additional pages if necessary.

**Project Description**

See attached.

**Justification**

See attached.

**Neighborhood Outreach Plan**

See attached.

# PROJECT DESCRIPTION
# FOR THE
# COYOTE CREEK AGRIVOLTAIC RANCH PROJECT

*Prepared for:*


**Sacramento Valley Energy Center, LLC**
1166 Avenue of the Americas, 9th Floor
New York, New York 10036


*Prepared by:*


DUDEK
1102 R Street
Sacramento, California 95811


JULY 2021

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| AC | alternating current |
| Applicant | Sacramento Valley Energy Center, LLC |
| APN | Assessor Parcel Number |
| CCAR | Coyote Creek Agrivoltaic Ranch |
| MW | megawatt |
| PG&E | Pacific Gas and Electric |
| Project | Coyote Creek Agrivoltaic Ranch |
| PV | photovoltaic |
| SCADA | supervisory control and data acquisition |
| SMUD | Sacramento Municipal Utility District |
| SVEC | Sacramento Valley Energy Center, LLC |
| SVRA | (Prairie City) State Vehicle Recreation Area |

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# 1 Introduction

The proposed Coyote Creek Agrivoltaic Ranch (CCAR) Project represents the "Project" for purposes of the Project Description contained herein. The Project is proposed by Sacramento Valley Energy Center (SVEC), LLC (Applicant), and incorporates solar energy generation and storage and associated ancillary facilities with ranching activities.

The Applicant proposes to construct and operate an approximately 200-megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy generating facility and include an on-site substation, inverters, fencing, roads, and supervisory control and data acquisition (SCADA) system. The proposed energy storage components would include an approximately 100 MW AC power output with approximately 400 megawatt hours of capacity energy storage (battery) system. The site of the Project, Barton Ranch has an existing easement for access and utilities that go from Barton Ranch to the intersection of Grantline Road and White Rock Road. The Project's gen-tie is approximately 1.3 mile long where a new Switchyard will be constructed to interconnect into Sacramento Municipal Utility District's (SMUD) 230 kV powerline in proximity to the Prairie City State Vehicle Recreation Area (SVRA).

Barton Ranch has historically been grazed with sheep and cattle when economic. The proposed Project would ensure grazing and ranching activities continue and the ranch remains as a large ranch under the Williamson Act. New troughs and fencing will be installed along with new seeding of portions of the ranch to provide quality grazing habitat within the fenced solar array. Additionally, areas of pollinator friendly habitat will be created.

Figure 1, Project Study Area Overview, shows the Project study area and the included parcels which total approximately 2,555 acres of lands that have been used for ranching or Prairie City SVRA park uses. The area impacted by the solar arrays, battery, and ancillary facilities is a substantially smaller footprint and sheep grazing will continue within the solar arrays. Figure 2, Site Plan, shows the proposed site plan. Table 1, Assessors Parcels within the Project Study Area, provides the Assessor Parcel Numbers (APNs), zoning, and approximate acreages that comprise the Project Study Area.

**Table 1. Assessors Parcels within the Project Area and Gen-tie Alignment**

| Assessor Parcel Number | Total Acreage | Zoning |
|---|---|---|
| 072-0110-066 | 40.00 | AG-80 |
| 072-0110-068 | 52.05 | AG-80 |
| 072-0110-067 | 80.00 | AG-80 |
| 072-0110-069 | 80.00 | AG-80 |
| 072-0110-070 | 80.00 | AG-80 |
| 072-0110-071 | 80.00 | AG-80 |
| 072-0110-072 | 60.06 | AG-80 |
| 072-0110-075 | 19.94 | AG-80 |
| 072-0110-073 | 44.92 | AG-80 |
| 072-0110-076 | 35.08 | AG-80 |
| 072-0110-074 | 27.70 | AG-80 |
| 073-0020-034 | 80.15 | AG-80 |
| 073-0020-035 | 40.26 | AG-80 |
| 073-0020-062 | 18.22 | AG-80 |
| 073-0020-065 | 22.04 | AG-80 |

Table 1. Assessors Parcels within the Project Area and Gen-tie Alignment

| Assessor Parcel Number | Total Acreage | Zoning |
|---|---|---|
| 073-0020-036 | 41.29 | AG-80 |
| 073-0020-063 | 11.10 | AG-80 |
| 073-0020-064 | 68.99 | AG-80 |
| 073-0020-066 | 40.0 | AG-80 |
| 073-0020-041 | 40.16 | AG-80 |
| 073-0020-040 | 64.51 | AG-80 |
| 073-0020-067 | 15.64 | AG-80 |
| 073-0020-039 | 80.45 | AG-80 |
| 073-0020-037 | 40.26 | AG-80 |
| 073-0020-042 | 80.33 | AG-80 |
| 073-0020-043 | 63.95 | AG-80 |
| 073-0020-068 | 16.36 | AG-80 |
| 073-0020-044 | 57.50 | AG-80 |
| 073-0020-069 | 22.78 | AG-80 |
| 073-0020-070 | 40.00 | AG-80 |
| 073-0020-045 | 120.59 | AG-80 |
| 073-0020-051 | 80.32 | AG-80 |
| 073-0020-071 | 27.59 | AG-80 |
| 073-0020-050 | 58.55 | AG-80 |
| 073-0020-018 | 39.00 | AG-80 |
| 073-0020-049 | 41.28 | AG-80 |
| 073-0020-052 | 80.14 | AG-80 |
| 073-0020-053 | 30.86 | AG-80 |
| 073-0020-072 | 41.48 | AG-80 |
| 073-0020-054 | 80.27 | AG-80 |
| 073-0020-058 | 75.41 | AG-80 |
| 073-0020-073 | 4.93 | AG-80 |
| 073-0020-075 | 7.12 | AG-80 |
| 073-0020-074 | 33.02 | AG-80 |
| 073-0020-057 | 40.13 | AG-80 |
| 073-0020-056 | 80.89 | AG-80 |
| 073-0020-059 | 80.38 | AG-80 |
| 073-0020-060 | 38.50 | AG-80 |
| 073-0020-076 | 1.68 | AG-80 |
| 073-0020-029 | 9.59 | AG-80 |
| 073-0020-077 | 30.61 | AG-80 |
| 073-0020-061 | 80.35 | AG-80 |
| *Subtotal* | *2,526.43* | – |

## Table 1. Assessors Parcels within the Project Area and Gen-tie Alignment

| Assessor Parcel Number | Total Acreage | Zoning |
|---|---|---|
| *Gen-Tie Alignment* | | |
| 072-3160-002 | 10.00 | SPA-Aerojet |
| 072-0100-027 | 3.00 | M-2 |
| 072-0100-018 | 10.30 | M-2 |
| 072-0110-031 | 3.00 | M-2 |
| 072-0110-068* | 3.00 | AG-80 |
| *Subtotal* | *29.30* | – |
| **Total** | **2,555.73** | **–** |

* 072-0110-068 should be updated by Assessor's office as the portion of this APN utilized by the project is currently under the legal description of another parcel.

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# 2 Site Description

The Project site is located on the Barton Ranch adjacent to 3830 Scott Road, Sacramento County, California. The site is approximately 2.5 miles south of White Rock Road in the Cosumnes community. The Project site is located approximately 4.5 miles south of U.S. Route 50, southeast of the Prairie City State Vehicle Recreation Area and is bisected by Scott Road. The geographic center of the Project roughly corresponds with 38.576278° North and -121.132944° West, at an elevation of 196 feet above sea level. A gen-tie line would extend approximately 1.3 miles to provide an interconnection to the SMUD 230 kV powerline which runs through PCSVRA.

The location of the Project was selected because of its proximity to the existing SMUD transmission corridor, the fact that the land is actively used for grazing activities (i.e. disturbed), the site's nearby access to existing roads, and the site's excellent solar irradiance. Land uses in the area include grazing, mining, Aerojet's industrial lands, and the PCSVRA. Locally, the main access to the Project would be from Scott Road.

The Project site is designated general agricultural (GA-80) by the Sacramento County General Plan Land Use Element (County of Sacramento 2017), and the Project site parcels are comprised of lands zoned as AG-80 (County of Sacramento 2020). The Project will continue to utilize land for agricultural activities which may consist of apiary facilities and grazing activities. The Project site is currently used for cattle grazing and has historically been used for sheep grazing and apiary facilities. The land underlying the site is subject to Williamson Act contracts 70-AP-044, 69-AP-004, 69-AP-005, 69-AP-006, and 69-AP-008. The Williamson Act contracts in place are some of the oldest in the state and allow for "gas, electric, water and communication utility facilities." Additionally, the Williamson Act contracts allow for solar photovoltaic facilities and battery energy storage in conjunction with agricultural activities and thus an agrivoltaic solar generating and energy storage project is an allowable use under the contracts. The Williamson Act contracts cover more land area than the Project as this project is part of the larger Barton Ranch. The Project is consistent with the language in the Williamson Act contracts, the contracts cover a larger area that will remain in agricultural use, and the land within the fence of the project will continue to be used for agricultural purposes.

According to the California Important Farmland Finder (California Department of Conservation 2016), the parcels include grazing land and other land, shown in Figure 3. The project facilities will be sited on grazing lands.

The Project proposes to interconnect to SMUD's 230 kV power line. A new 230 kV switchyard will be constructed adjacent to the existing powerline. Example 1 in Appendix A depicts the scale of facilities that would be associated with the gen-tie.

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# 3 Project Description

The Project consists of the following components:

- Solar PV modules mounted on single-axis tracking systems and power conversion station including inverters and transformers
- On-site substation
- Energy storage system with capacity to store ~100 MW AC/400MWh of energy
- Two meteorological towers up to 15 feet in height
- Diesel, propane, or battery powered backup generators
- Water storage
- Private access roads, perimeter roads, and fencing
- Gen-tie line & Switchyard

## 3.1 Solar Energy Generation System

The Project includes ~200 MWac solar power generating installation. The fenced solar facility would house all structures, including solar panels, single-axis tracking support structures, inverters, transformers, SCADA, and interconnection facilities (on-site substation). The proposed site plan is shown on Figure 2. Solar energy would be captured by PV panels mounted to a single-axis tracker system (refer to Appendix A, photos 1 thru 4). Depending on the selected manufacturer for the PV modules, the modules will be mounted on fixed-tilt, single or dual-axis tracking structures. The modules will be grouped in nominal 1 to 4MW-AC arrays. Fixed tilt arrays will be oriented in east-west rows and will face in a generally southern orientation with a tilt angle between 10 and 40 degrees to maximize the amount of incidental solar radiation absorbed over the year. Single-axis trackers typically rotate ±60 degrees (0 degrees is horizontal) along a nominally north-south axis to track the sun's movement throughout the day. Structural support elements will be constructed of corrosion-resistant steel, aluminum, or equivalent members that are attached to circular piers or I-beam posts that will be driven into the prepared base grade of the site.

The solar array field is arranged in groups called "blocks". The entire array block is connected to an inverter and transformer station to convert the current from DC to AC and step up the voltage to a higher voltage which is more efficient for transmitting power to the project substation.

The racking system would be supported, when practical, by driven piers (piles) directly embedded into the ground, and would be parallel to the ground. Each rack would hold approximately 80 to 90 panels (depending on final configuration) and at its highest edge would have a maximum height approximately 12 feet above grade, depending on the dimensions of the chosen panel and racking technology. The minimum clearance from the lower edge of the panel to ground level would be approximately 18 inches, pending final design.

At the center of each array is a power conversion station where inverters take the DC power output from the PV modules and convert it to AC power. Typical inverter stations are shown in Photo 12 in Appendix A. The adjacent pad-mounted transformer steps the voltage up to a medium voltage level. The medium voltage outputs from each of the pad-mounted transformers are collected together in combining switchgear located at discrete locations on the Project site. The medium voltage output from the combining switchgear will be connected to the Project substation where it will then be stepped up to 230 kV for export to the grid.

The inverter stations would be up to 12 feet in height and perform three critical functions for the solar plant: (1) collect DC power in a central location, (2) convert the DC power into AC power, and (3) convert low-voltage AC power to medium-voltage AC power. The inverter stations are typically open-air. The stations consist of DC collection equipment, utility-scale inverters, and a low- to medium-voltage transformer. The output power from the inverter stations is then fed to the AC collection system through an above- or below ground collection system. This AC collection system would deliver the electricity to the on-site substation, where the voltage would be stepped up through a transformer to the interconnection voltage.

## 3.2 On-Site Substation

The Project on-site substation would be the termination point of the collection system for 34.5 kV electricity. The output of the entire field would be passed through a final interconnection step-up transformer to convert it to the grid tie voltage at 230 kV. The communication system may include above or below ground fiber optic cable or microwave tower. The Project will be interconnected to the regional transmission system from the onsite substation/switchyard via the gen-tie facilities described in this project description. A conceptual substation is shown in Photo 13 in Appendix A. Additionally the Project on-site substation would host the grid intertie safety equipment and switches required to interconnect to the high-voltage transmission system. The open-air on-site substation would be constructed on the western limits of the Project site as shown in Figure 2. The footprint of the on-site substation would be approximately 400 feet by 400 feet. The Project on-site substation would consist of components up to 150 feet in height, and feeders would be overhead lines constructed with 150 -foot-tall and 100 -foot-tall poles for the single and double circuits, respectively.

## 3.3 Energy Storage System

The Project will likely incorporate a battery energy storage facility as well as energy storage being housed within the inverters. The energy storage system is proposed to provide a capacity of approximately 400 megawatt hours and may be centralized and located adjacent to the substation or switchgear, or alternatively, the energy storage component may be distributed throughout the plant adjacent to individual power conversion centers. The storage component may be housed in a warehouse type building (Photo 15 in Appendix A) or alternatively in smaller modular structures such as cargo shipping containers (Photo 16 in Appendix A). The maximum height of the structure, boxes, or trailers would be up to 25 feet. If a structure is used, the batteries would be housed in racking (similar to computer racking) 7 to 9 feet high, to allow efficient airflow between the batteries. The associated inverters, transformers, and switchgear would be located immediately adjacent to the energy storage facilities on concrete pads outdoors. The Project may store energy generated by the project, and the project may store energy from the grid.

The energy storage equipment would be enclosed in a structure or container boxes that would also have a fire rating in conformance with local fire authority and County standards. The energy storage facilities would also have heating, ventilation, and air conditioning in areas with batteries to maintain energy efficiency. Power to the heating, ventilation, and air conditioning and lighting, among others, would be provided through a connection to the on-site station service transformer with connection lines installed above- and/or belowground. The energy storage system would be un-staffed and have remote operational control. Periodic inspections/maintenance would be performed as necessary.

Table 2. Summary of Renewable Energy Storage and Benefits

| Public Benefits of Renewable Energy and Transmission | How Energy Storage Achieves the Benefit |
|---|---|
| Fiscal benefit of sales tax revenues from the purchase of equipment, goods and services. | Equipment purchases related to the design, construction, and operations of energy storage facilities will generate additional sales tax revenues. |
| Social and fiscal benefits from increased economic activity and local employment opportunities that do not threaten the economic viability of other industries | The construction and operational phases of the Project will generate increased economic activity by bringing new jobs to the local community. |
| Improvements in technology to reduce costs of electrical generation | Energy storage enables better energy balancing and great grid reliability by solving the discrepancy between solar energy's peak demand and peak supply times, benefitting both the region and the state in achieving critically needed energy balancing.<br>Energy balancing, in turn, levelized the cost of energy. By storing excess energy generated during daylight hours, energy storage would increase the supply of energy available during peak demand, thereby offsetting some of the higher costs of energy consumption generally associated with peak nighttime demand. |
| Reduction in potential greenhouse gases by displacing fossil-fuel-generated electricity with renewable energy power which does not add to the greenhouse effect | Energy storage will help the region and the State achieve greenhouse gas reduction targets by allowing SMUD and the CAISO to procure electricity from renewable resources held in storage rather than from fossil-fuel sources. |
| Contribution towards meeting the State of California's RPS | Aid California in meeting its RPS requirements by contributing to the supply of renewable electricity for SMUD or CAISO's procurement. |
| Minimization of impacts to local communities, agriculture and sensitive environmental resources | Energy storage leverages existing renewable energy resources and reduces the need for fossil fuel-derived sources of electricity, thus reducing potential air quality and GHG emissions.<br>The Project is sited on previously disturbed agricultural land to minimize impacts to sensitive environmental species.<br>The Project Site will be restored to grazing conditions at the end of the life of the Project. |

# 3.4 Generation Tie Line

The energy from the solar energy generation and energy storage systems would be transported from the on-site substation to SMUD's 230 kV powerlines. The route of the gen-tie line is to be determined, but would extend approximately 1.3 miles from the facility's on-site substation to western terminus of the gen-tie where it would interconnect into SMUD facilities (see Figure 2). The 230 kV gen-tie line would consist of one or two single-circuit structures, which could be constructed with up to 150-foot-tall wood, concrete, or steel poles. The number, composition, and height of the poles, as well as the type of conductor, would be finalized during detailed design. The gen-tie will utilize existing dirt and paved access roads where available, however, some improvements and new road sections may be required for construction, operations, and maintenance along with decommissioning activities. Additionally, a lower voltage powerline and communications line would share the same structures or share the same easement to provide power and communications to the Barton Ranch and CCAR. A new 230 kV switchyard approximately 400 feet by 600 feet in size would be constructed at the point of interconnection with

SMUD's existing 230 kV power line. Additionally, a retention basin would be located on the south side of the switchyard to control stormwater run-off. The area for the switchyard and interconnection improvements may require modification of the current easement or a new easement to be granted over PCSVRA property. The switchyard will be designed to avoid or relocate existing groundwater monitoring wells on the property. The switchyard is proposed to be located on an area in which Aerojet is performing groundwater remediation. The remediation activities are monitored by the Department of Toxic Substances Control, Regional Water Quality Control Board, and United State Environmental Protection Agency. Additionally, construction of the gen-tie may require relocation of some facilities or improvements to those facilities within PCSVRA's boundaries, including but not limited to the go-kart track, barn, office, bleachers, camera system, restrooms, and parking lot. The modifications and improvements would be done in conjunction with PCSVRA staff.

An alternative gen-tie route and switchyard location that went around PCSVRA improvements, but through riding trails was analyzed but abandoned due to the potential loss of Off Highway Vehicle trails. The proposed project and modifications to the existing easement would allow 17 acres of land to continue to be utilized for riding trails that were previously destined to be utilized as an exclusive mining haul road.

# 3.5 Ancillary Facilities

## 3.5.1 Access Road

Access to the Project site will be from Scott Road. Access to components of the solar field will be controlled through security gates at several entrances. Multiple gate restricted access points will be used during construction and operation.

Construction of the Project is expected to take approximately 12 months. Daily trip generation during the construction of the Project would be from delivery of equipment and supplies and the commuting of the construction workforce. The number of workers expected onsite during construction of the Project would vary over the construction period and will likely average up to 250 workers per day. Deliveries of equipment and supplies to the site would also vary over the construction period but have the potential to range from 5 to 40 daily trips, averaging approximately 10 daily trips during the construction period. Parking for Project-related vehicles will be provided onsite during construction. The parking lot will move to adjacent phases as new phases are constructed.

Based on the expected trips generated, traffic on the local roads would increase during construction but impacts to current traffic patterns are anticipated to be minimal. Construction activities typically start early in the early morning (6:00am) and end early in the afternoon (3-4pm) and the majority of the skilled workforce is anticipated to be travelling south on Scott Rd in the mornings and north in the afternoon which is opposite of the Rancho Murrieta commuting pattern.

No impact to current traffic patterns would result during operation of the Project. Operation of the site would be expected to generate approximately 4 to 10 trips per day from maintenance and security personnel.

The Project access roads would be 20 feet wide and composed of compacted native material. The Project access roads would connect to existing paved access roads located on the perimeter of the Project site.

## 3.5.2 Security

### 3.5.2.1 Signage

To ensure the safety of the public and the facility, the property will be fenced, security lighting may be installed, and signs will be posted on all gates and doors. Spacing will generally be at 500-foot intervals if there are no nearby roads providing access. Signs will be placed at 75-foot intervals along roadways. Access to the site will be controlled, and gates will be installed at the roads entering the property. The fence will be monitored periodically to detect any intrusion into the property. The Project proposes to construct a chain link fence perimeter. Landscaping and entry monumentation will be maintained at the entrance to the Project and along Scott Road.

### 3.5.2.2 Perimeter Fence

The perimeter of the Project site would be enclosed by an approximately 8-foot-tall chain-link fence with three-strand barbed wire. Access into the Project site would be provided through drive-through gates. The main purpose of the fence is to prevent unauthorized access to the site. The total height, above grade, of the fence would be approximately 8 feet.

### 3.5.2.3 Lighting

Low-elevation (<14 foot), controlled security lighting would be installed at primary access gates and the on-site substation and at the entrances to the energy storage facilities. The lighting would only switch on when personnel enter the area (through either motion-sensor or manual activation [switch]). All safety and emergency services signs would be lit when the lights are on. The lighting would be shielded so the light is directed downwards. Electrical power to supply the access gate and lighting would be obtained from SMUD. Lighting would only be in areas where it is required for safety, security, or operations. All lighting would be directed on site and would include shielding as necessary to minimize illumination of the night sky or potential impacts to surrounding viewers.

### 3.5.3.4 Noise

Noise may be generated by equipment within the substation; typically this includes switches, protection and control equipment, transformers, and the incoming transmission lines. The noise generated by transmission lines and switches has previously been analyzed to be 25 dBA at 50 feet. Transformers within the substation would generate noise levels similar to those at the inverters. Substation switches do not generate an audible noise, and circuit breakers (70 dBA at 65 feet) would not be a common noise source, as they would only operate for short periods of time during an emergency event in order to protect the switches and transformers within the substation. Additionally, the primary noise generator from the battery storage facilities will be the air conditioning units. The battery storage facilities are generally set back from the property lines and if located near the substation, the nearest neighbor is Prairie City SVRA and the noise from a motorcycle is substantially greater than the noise from an air conditioner. Additionally. Prairie City SVRA obtained a noise easement over a portion of the Barton Ranch to ensure the noise generated by the offroad vehicle activities at Prairie City were accepted by the neighbors. The substation and battery storage facilities along with the transmission line are all within the noise easement or Prairie City SVRA.

#### 3.5.3.5 Electric Service

Permanent electric service will be obtained for auxiliary loads. Service will be provided by SMUD. Temporary electric service will be obtained for primary construction logistical areas. Generator power may be utilized for temporary portable construction trailer(s), construction, and/or for commissioning.

#### 3.5.3.6 Communications Systems

The Project will utilize telephone and internet services that will be provided via overhead or underground lines, microwave tower or via cellular service obtained from a local provider.

#### 3.5.3.7 Fire Control

The PV modules and ancillary equipment are constructed of fire-resistant material. Landscape maintenance and/or grazing activities will help ensure control of vegetation. As such, the Project represents a negligible increase in fire potential.

## 3.6 Ranching Activities

The Project site is designated general agricultural (GA-80) by the Sacramento County General Plan Land Use Element, and the Project site parcels are comprised of lands zoned as AG-80. The Project will continue to utilize land for agricultural activities which will consist of apiary facilities and/or grazing activities when economically viable. The land underlying the site is subject to Williamson Act contracts 70-AP-044, 69-AP-004, 69-AP-005, 69-AP-006, and 69-AP-008.

These are some of the oldest Williamson Act contracts in existence and allow for mining as well as gas, electric, water and communication utility facilities additionally, the Williamson Act contracts allow for solar photovoltaic facilities and battery energy storage in conjunction with agricultural activities and thus an agrivoltaic solar generating and energy storage project is an allowable use under the contracts. The Williamson Act contracts cover more land area than the Project as this project is part of the larger Barton Ranch. The land has historically been used for grazing and apiary facilities when economic and when the weather cooperates. The land is not irrigated but instead dependent on rainfall for forage production.

The Project is consistent with the language in the Williamson Act contracts, the contracts cover a larger area that will remain in agricultural use, and the land within the fence of the project will continue to be used for agricultural purposes. The PV panels will be on trackers and while the trackers track the sunlight, vegetation will continue to grow under the panels. The panels on single axis trackers shift throughout the day to face 60 degrees to the east in the morning and 60 degrees to the west in the evening.

The Barton Ranch had historically been used for sheep grazing and has more recently been used for cattle grazing. While cattle may remain in areas outside of the solar fence line, sheep will graze within the solar fence line.

Areas that are disturbed will be reseeded with seed mixes that are proven to thrive in the local environment and a weed management plan will be implemented to minimize the spread of weeds on the site. The proposed use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves as agricultural activities will continue

on CCAR and during operations, a solar/storage facility is a very low impact neighbor – the solar/storage component has minimal traffic and few people who may be sensitive to noise, or dust from a nearby agricultural operation or Off Highway Vehicle Recreation Area. While several neighbors are in agricultural preserves, most neighbors to CCAR are doing cattle grazing, off highway vehicle recreation, or mining activities and thus a dual use of ranching and energy storage/generation won't impact the neighbors. A supplemental planting plan will be implemented when the solar facility is removed from the property and the land will be reseeded with a seed mix proven to be successful in the area for grazing cattle and sheep when the solar and storage facility is decommissioned, and the land is restored.

The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Grading activities will disturb a significant portion of the Barton Ranch; however, grading is anticipated to be implemented by moving the least amount of dirt feasible to soften the steepness of the slopes to less than 10% grade. Additionally. these areas will be re-seeded. However, access roads required for fire access will remain without vegetation.

Animal productivity on the site is dependent on the weather and the amount of forage available. As the climate changed over the years, the ability to graze the ranch has changed. The proposed Project will replant with a seed mix, install pumps at several existing well sites, create more pollinator friendly vegetation, and develop several new water trough locations, and install additional fencing which will all enhance the grazing quality of the ranch with the goal of achieving similar animal productivity and carrying capacity to that currently existing. Given the wide range of annual forage production, the ranch historically has supported approximately one animal unit ("AU") for every 8 to 10 acres per year in any given grazing year. The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use as the project will have minimal impact on the neighbors.

A team from Oregon State University (OSU) described the concept of co-developing the same area of land for both solar photovoltaic power and conventional agriculture as agrivoltaics. "Our results indicate that there's a huge potential for solar and agriculture to work together to provide reliable energy," said corresponding author Chad Higgins, an associate professor in OSU's College of Agricultural Sciences. There's an old adage that agriculture can overproduce anything. That's what we found in electricity, too. It turns out that 8,000 years ago, farmers found the best places to harvest solar energy on Earth."

Pollinator friendly plants will be seeded throughout the ranch to ensure apiary activities can continue to promote a thriving ecosystem. The sheep grazing activities will require additional troughs to be installed on the Ranch and additional water sources will be developed which may consist of running water lines from existing wells, creeks, or ponds, or establishing new sources of water, including but not limited to new wells. These new water sources may be utilized for construction, operations, and decommissioning activities.

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# 4 Construction

## 4.1 Construction Activities

Construction will be composed of the following activities:

- Perimeter fence installation
- Site preparation and clearing/grading
- Underground work (trenching)
- System installation
- Gen-tie installation
- Energy storage system
- Testing and commissioning
- Site cleanup and restoration

Site preparation will be planned and designed to minimize the amount of earth movement required for the Project to the extent feasible. The hydrology design will be given first priority in order to protect the Project's facilities and adjacent facilities from large storm events. Additional grading would occur throughout the site, especially for the construction of roads, inverter pads, and the switchyard/substation/energy storage system. This would be accomplished with scrapers, motor graders, water trucks, dozers, and compaction equipment. The PV modules would be off-loaded and installed using small cranes, boom trucks, forklifts, rubber-tired loaders, rubber-tired backhoes, and other small- to medium-sized construction equipment as needed. Construction equipment would be delivered to the site on "low-bed" trucks unless the equipment can be driven to the site (e.g., boom trucks).

It is the intent of the Project to support the panels on driven piles. Additional compaction of the soil in order to support the building and traffic loads as well as the PV module supports may be required and is dependent on final project engineering design. Additionally, some piles may need to be pre-drilled to get through the rocky soils. The existing hydrology and soils of the site are provided in Figures 4 and 5.

The onsite drainage patterns will be maintained to the greatest extent possible. However, it may be necessary to remove, relocate and/or fill in portions of the land for the Project. Specifically, the conceptual grading plan anticipates grading slopes to less than 10% to reduce the steepness of some onsite slopes. However, the general elevations of the peaks and troughs of the gently rolling hills remain the same.

At locations where transmission pole and tracker foundations would be installed, minor cut or fill may be required where the foundations would be driven.

## 4.2 Construction Schedule

This Project is anticipated to be built over an approximately 12-month timeframe from the onset of perimeter fence installation through testing and commissioning of the facility. It is anticipated that the work would be completed in 8- to 10-hour shifts, with a total of five shifts per week (Monday–Friday). Typical construction work hours are expected to be from 6:00 am to 4:00 pm. However, the schedule may change based on a need to comply with

various biological mitigation measures, overall construction timing, or worker safety such as avoidance of excessive midday heat. Work at night will be performed occasionally within limited areas of the site.

Overtime and weekend work would be used only as necessary to meet scheduled milestones or accelerate schedule and would comply with all applicable California labor laws. Primary construction activities and durations are presented in Table 1. The activities shown in Table 1 would overlap in certain phases, and all are expected to occur within the estimated 12-month construction duration.

### Table 3. Proposed Project Construction Duration, Equipment, and Workers by Activity

| Activity | Duration | Equipment | Pieces | Daily Workers |
|---|---|---|---|---|
| Perimeter fence installation | 3 months | Skid loader with auger attachment | 1 | Maximum = 400<br>Average = 250 |
| | | 4x4 forklift | 1 | |
| | | Flatbed truck | 1 | |
| Site preparation and clearing/grading | 3 months | Water truck – 3 axles | 3 | |
| | | Grader | 2 | |
| | | Bulldozer | 1 | |
| | | Scraper | 1 | |
| | | 10-ton roller | 1 | |
| | | Sheepsfoot roller | 1 | |
| | | Tractor (with mower attachment) | 1 | |
| Underground work (trenching) | 5 months | Excavator | 2 | |
| | | Sheepsfoot roller | 1 | |
| | | Water truck – 3 axles | 1 | |
| | | Aussie padder (screening machine) | 1 | |
| | | 4x4 forklift | 1 | |
| System installation | 8 months | 4x4 forklift | 10 | |
| | | Small crane (80-ton) | 1 | |
| | | All-terrain vehicle | 26 | |
| | | Pile driver | 5 | |
| | | Pickup truck | 5 | |
| | | 5-kilowatt generator | 3 | |
| Gen-tie installation | 1 month | Line truck (with spool trailer) | 1 | |
| | | Boom truck (with bucket) | 1 | |
| Energy storage system | 10 months | Backhoe | 1 | |
| | | Small crane | 1 | |
| | | Pickup truck | 5 | |
| | | 4x4 forklift | 4 | |
| Testing and commissioning | 3 months | Pickup truck | 4 | |
| Site cleanup and restoration | 2 months | Grader | 1 | |
| | | Skid loader | 1 | |

### 4.2.1 Temporary Construction Facilities

During construction, temporary facilities will be developed onsite to facilitate the construction process. These facilities may include construction trailers, temporary septic systems or holding tanks, parking areas, material receiving / storage areas, water storage ponds, construction power service, recycling / waste handling areas, and others. These facilities will be located at the construction areas designated on the final site plan.

## 4.3 Traffic

The peak daily construction employee count would be approximately 400 with an average of 250 workers daily. As shown in Table 4, in addition to the 400 maximum daily workers traveling to the site, there would be up to 40 truck trips per day at peak construction activity (when the trenching and system installation phases overlap). A total of up to 440 trips per day are anticipated during peak construction activities, assuming a worst-case scenario whereby no carpooling occurs, though it is likely that carpooling would occur.

**Table 4. Project Construction Estimated Truck Activity**

| Truck Type | Average Number of Vehicles on Site | Gross Weight (Pounds) | Trips/Day | Duration |
|---|---|---|---|---|
| 8,000-gallon water truck (to remain on site) | 2 | 80,000 loaded | 0 | 12 months |
| 20-cubic-yard dump/bottom dump truck | 3 | 80,000 loaded | 4+ | 4 months |
| Pickup trucks | 20 | 8,000 | 3 | 12 months |
| Pile driver | 5 | 15,000 | 2 | 6 months |
| Grader | 2 | 54,000 | 2 | 3 months |
| Boom truck with bucket | 1 | 42,000 | 2 | >1 month |
| Component delivery trucks | 1 | 42,000 | 25 | 2 months |
| Utility line service truck | 3 | 30,000 | 1 | >1 month |

Delivery of material and supplies would reach the site through on-road truck delivery via U.S. Route 50, Prairie City Road and/or Scott Road and White Rock Road to Scott Road. The majority of the truck deliveries would be for the PV system installation, as well as any aggregate material that may be required for road base. Several mining facilities are located within a couple of miles of CCAR and there is currently an easement for a mining haul road and a conveyor belt to transport aggregates that runs over a portion of CCAR and adjacent properties; therefore the truck estimates used here are conservative as the project may be able to obtain aggregates from the conveyor easement.

The heaviest delivery loads to the site would also consist of the single-axis tracker structures, rock truck deliveries, and the delivery of the generator step-up transformer. These loads would typically be limited to a total weight of 80,000 pounds, with a cargo load of approximately 25 tons, or 50,000 pounds, of rock or tracker structures. The generator step-up transformer could be up to 160,000 pounds. Typically, rock is delivered in “bottom dump trucks” or ”transfer trucks” with six axles, and the tracker structures would be delivered on traditional flatbed trucks with a

minimum of five axles. Low-bed transport trucks would carry the construction equipment to the site as needed. The size of the low-bed truck (axles for weight distribution) would depend on the equipment transported.

## 4.4 Water Use

Water consumption during construction is estimated to be approximately 675 acre-feet for dust suppression, earthwork, and plant re-establishment over an approximately 12-month period. Construction water is available from onsite wells, creeks, and ponds. Construction-phase water demand will be greatest during site grading which will consist of scrapers, dozers, graders, and disc and roll compaction over the site. Operational water use is described in Section 5.0, Operation and Maintenance.

## 4.5 On-Site Electrical Distribution

New distribution lines would be constructed to provide backup power to the solar and energy storage facilities for lighting and communications purposes.

# 5 Operation and Maintenance

The Project component would be unmanned, however an operations and maintenance building would be constructed to support periodic maintenance activities. The operations would be monitored remotely through the SCADA system, and periodic inspections and maintenance activities would occur. During operations, solar panel washing is expected to be conducted periodically as performance testing, weather, and site conditions dictate. General labor (up to 10 individuals) may assist in the panel cleaning. Panel washing for a project of this size would require 14 days to complete per wash cycle. Water consumption is expected to be around 22 ounces of water per module of panel based on similar operations. Given a 200 MW AC plant, and assuming four cycles per year, the annual water use is expected to consume up to approximately 2 acre-feet of water. While it is anticipated that PV panels will only be washed once per year, the panels may need to be washed up to four times per year based on site conditions. Conditions that may necessitate increased wash requirements include unusual weather occurrences, forest fires, local air pollutants, and similar conditions. Therefore, the Project is requesting the use of up to 8 acre-feet per year of water for the explicit use of washing panels. Water trucks would be used to deliver water for panel washing operations from a local purveyor. The water used for panel washing operations will be clean water, with no chemicals added. In addition to water for use for panel washing, water usage will be required during sheep grazing operations from April to early June. It is estimated that approximately 400 sheep will be onsite per day from April to June (90 days) and each sheep consumes approximately 1 gallon per day. A total of 36,000 gallons of water is estimated for sheep grazing activities.

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# 6 Decommissioning

The planned operational life of the facility is approximately 35 years. However, if the facility continues to be economically viable, it could be operated for a longer period.

The Project will create a decommissioning plan that will be implemented at the end of the Project's life, and will adhere to Sacramento County's decommissioning requirements, including, but not limited to:

- Description of the proposed decommissioning measures for the facility and for all appurtenances constructed as part of the facility.
- Description of the activities necessary to restore the site to its previous condition.
- Presentation of the costs associated with the proposed decommissioning measures. Discussion of conformance with applicable regulations and with local and regional plans.

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# 7 Social and Environmental Benefits

The proposed Generating Facility provides a host of social and environmental benefits consistent with California Public Utilities Code § 399.11 et seq., including:

### Increasing the Diversity, Reliability, Public Health and Environmental Benefits of the Energy Mix

Retail power sellers and publicly owned utilities are required to procure 50 percent of their electricity from eligible renewable energy sources by 2030. Due to rapid developments in the solar power industry, coupled with recent cost reductions and the inherent "peak shaving" benefits of solar power, solar energy is poised to contribute a significant amount of the total renewable power needed to achieve these requirements. Because solar generation occurs during on-peak hours, solar power can enhance grid stability by matching generation to the daily electric load profile. Although solar power is an intermittent source of electric energy, the onsite Solar Meteorological Station(s) will provide real-time data for reliable electrical generation predictions and coordination with the scheduling coordinator. Benefits to public health and the environment are addressed in detail below.

### Promoting Stable Electricity Prices

Energy prices have historically been volatile. A solar PV plant, such as the proposed facility, can produce electricity during peak demand periods when prices are highest, and energy is most needed. This helps to relieve stress on the grid during peak hours, preventing the need to call up more expensive peaker plants. Energy Storage technology has been improving at a dramatic rate over the past few years and storage coupled with solar will enable us to supply stable electricity prices over the long term since photovoltaic solar plants operate without a fuel source thus eliminating potential fuel price volatility and promoting stable electricity prices.

### Stimulating Sustainable Economic Development

Utility-scale solar PV power plants can be constructed and begin commercial operations within a short timeframe relative to fossil-based energy generation. This means that solar PV power plants can commence operation and begin producing revenue much sooner than traditional forms of electricity generation. Sacramento County will benefit from millions of dollars in property tax assessments over the course of the Project lifecycle. The current state property tax exemption for solar power applies only to aspects of the facility that generate solar power and not to the rest of the facility. High value items subject to property tax include the increased and re-assessed land value, Project switchyard, operations and maintenance building, and gen-tie line. These funds will be used to provide civil services for the local community. Laborers hired during the construction and operation phases of the Project will gain valuable skills that are in high demand in the emerging "green" economy.

### Reducing Reliance on Imported Fuels

Once the proposed Project is completed it will be able to operate completely independently from any imported fuels given that no fuel source is required in the solar PV electricity generation process.

### Ameliorating Air Quality Problems

Because the proposed Project will have zero emissions and burn no fossil fuels, it will eliminate emissions of criteria pollutants that would have otherwise originated from fossil-based electricity production. Table 2 shows the estimated criteria pollutant emission rates from fossil-based power generation in the California grid mix and the amount of emissions displaced by the approximately 100 MW Project annually.

## Table 5. Criteria Pollutant Emission Reductions Created by the Proposed Project

| Air Pollutant | Emission Factor (lb/MWh) | Annual Emissions Displaced by Project (lb) |
|---|---|---|
| CO | 0.465 | 244,124 |
| $NO_X$ | 0.227 | 119,174 |
| $PM_{10}$ | 0.040 | 21,000 |
| ROGs | 0.032 | 16,800 |
| $SO_X$ | 0.0022 | 1,154 |

**Source:** Wolff, G. 2005. Quantifying the Potential Air Quality Impacts from Electric Demand Embedded in Water Management Choices. The Pacific Institute for the California Energy Commission (CEC),Public Interest Energy Research (PIER) Energy-Related Environmental Research, CEC-500-2005-031. 100MW project based on a 30% capacity factor.

### Improving Public Health by Reducing the Burning of Fossil Fuels

Modern natural gas combined cycle plants have a net heat rate on the order of 7,000 Btu/kWh. Therefore, the proposed Project will offset approximately 4,600,000 million British thermal units (MMBtu) of natural gas use annually.

# 8 Project Approvals

The proposed Project would be subject to the following Sacramento County reviews and approvals:

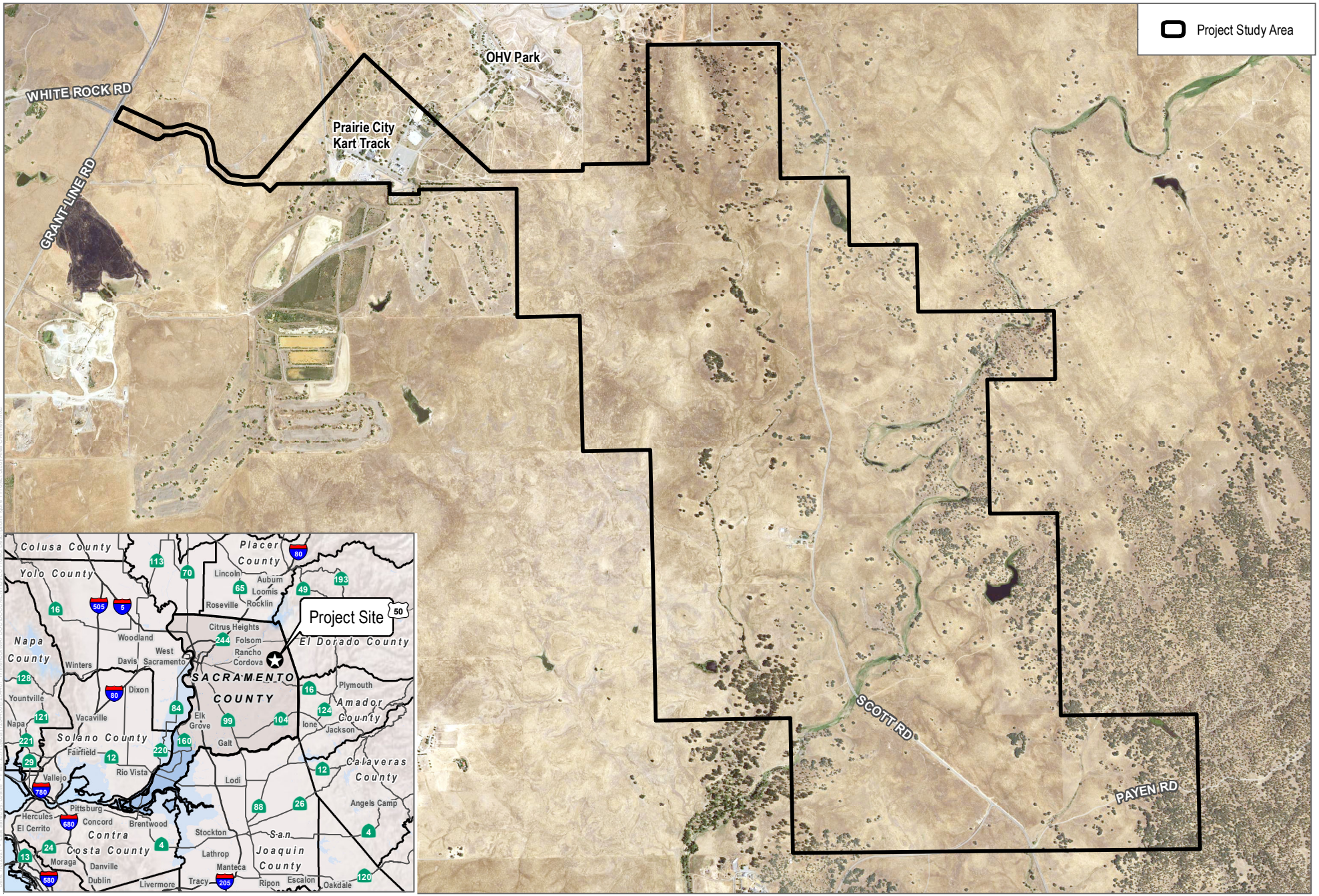
- A Use Permit to develop a Solar Energy Plant and/or Battery Energy Storage on lands zoned AG-80;
- Certification of the CEQA document per the California Environmental Quality Act by the Sacramento County Board of Supervisors;
- Lot Tie Agreement to reduce the setbacks for parcels that are part of the Project and adjacent to one another.

### Discretionary Actions and Approvals by Other Agencies

Responsible Agencies are those agencies that have discretionary approval over one or more actions involved with development of the proposed Project. Trustee Agencies are state agencies that have discretionary approval or jurisdiction by law over natural resources affected by a project. These agencies may include, but are not limited to the following:

- Sacramento Municipal Utility District (Various Agreements)
- California Public Utility Commission (Authority to Enter into Power Purchase Agreement)
- California Department of Fish and Wildlife (Streambed Alteration Agreement)
- United States Fish and Wildlife Service (Section 7 Consultation)
- California Regional Water Quality Control Board (401 Water Quality Certification and Gentie Easement and related facilities including land use covenant related to Aerojet's remediation activities)
- United States Army Corps of Engineers (404 permit)
- California State Public Works Board (Gentie Easement and related facilities)
- California State Department of General Services (Gentie Easement and related facilities)
- California State Department of Parks and Recreation (Gentie Easement and related facilities)
- California Department of Toxic Substances Control (Gentie Easement and related facilities including land use covenant related to Aerojet's remediation activities)
- United States Environmental Protection Agency (Gentie Easement and related facilities including land use covenant related to Aerojet's remediation activities)

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SOURCE: DigitalGlobe 2017

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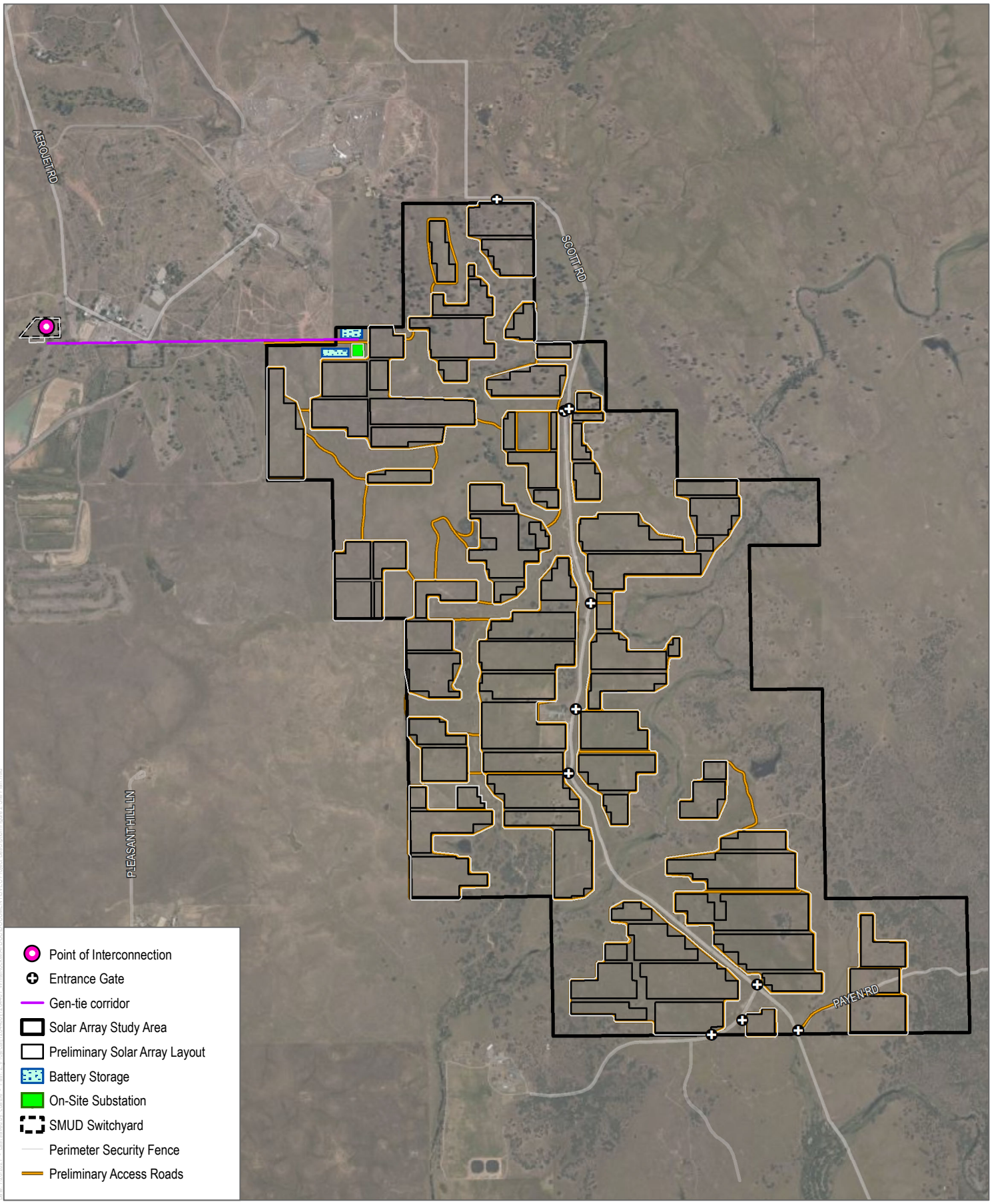
0 1,250 2,500 Feet

**FIGURE 1**

Project Study Area Overview

Coyote Creek Agrivoltaic Project

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SOURCE: USGS 2018; SSHCP

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0 1,000 2,000 Feet

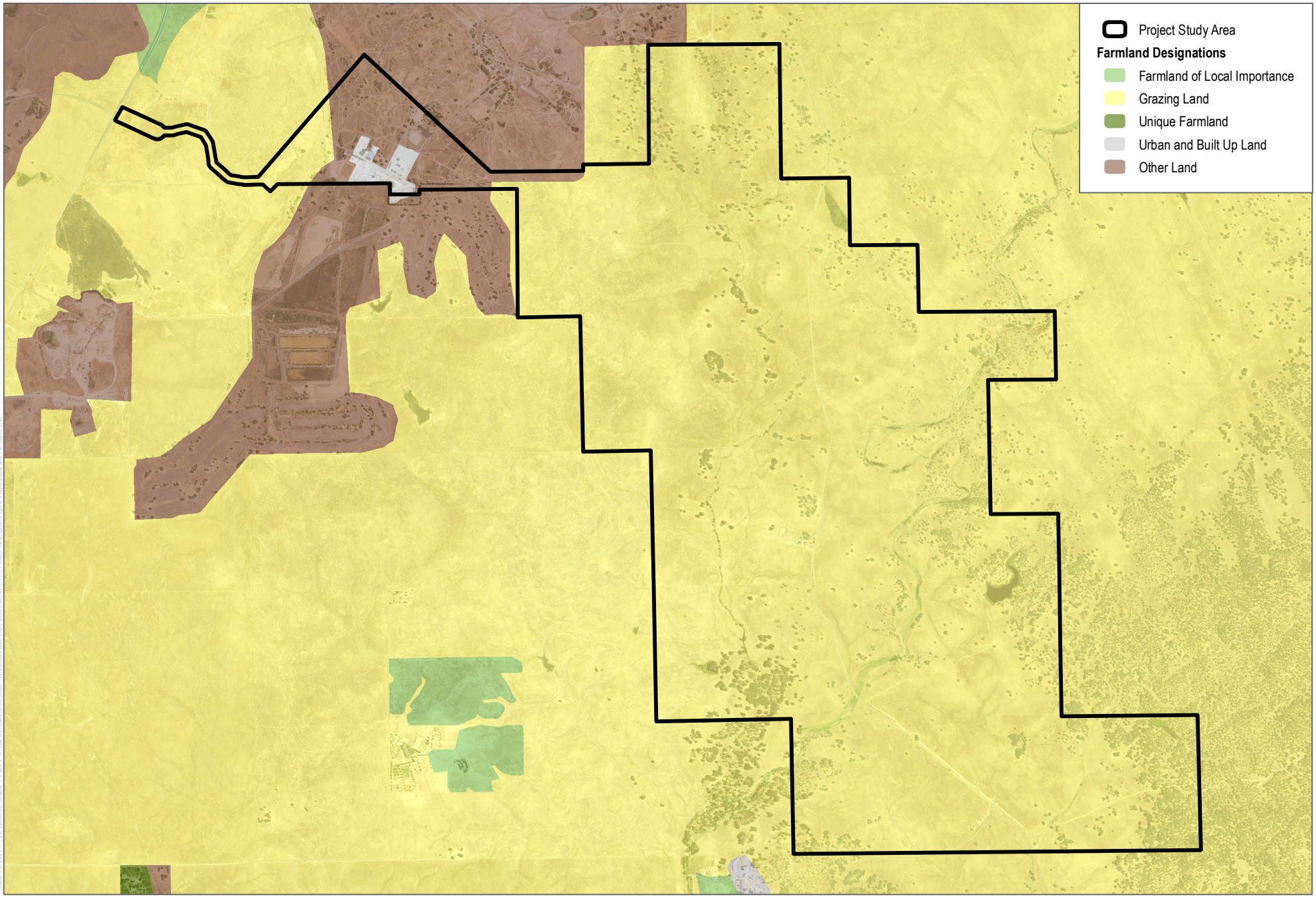
NAD1983, CA State Plane Zone II

**FIGURE 2**

Site Plan

Coyote Creek Agrivoltaic Project

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SOURCE: USDA 2018

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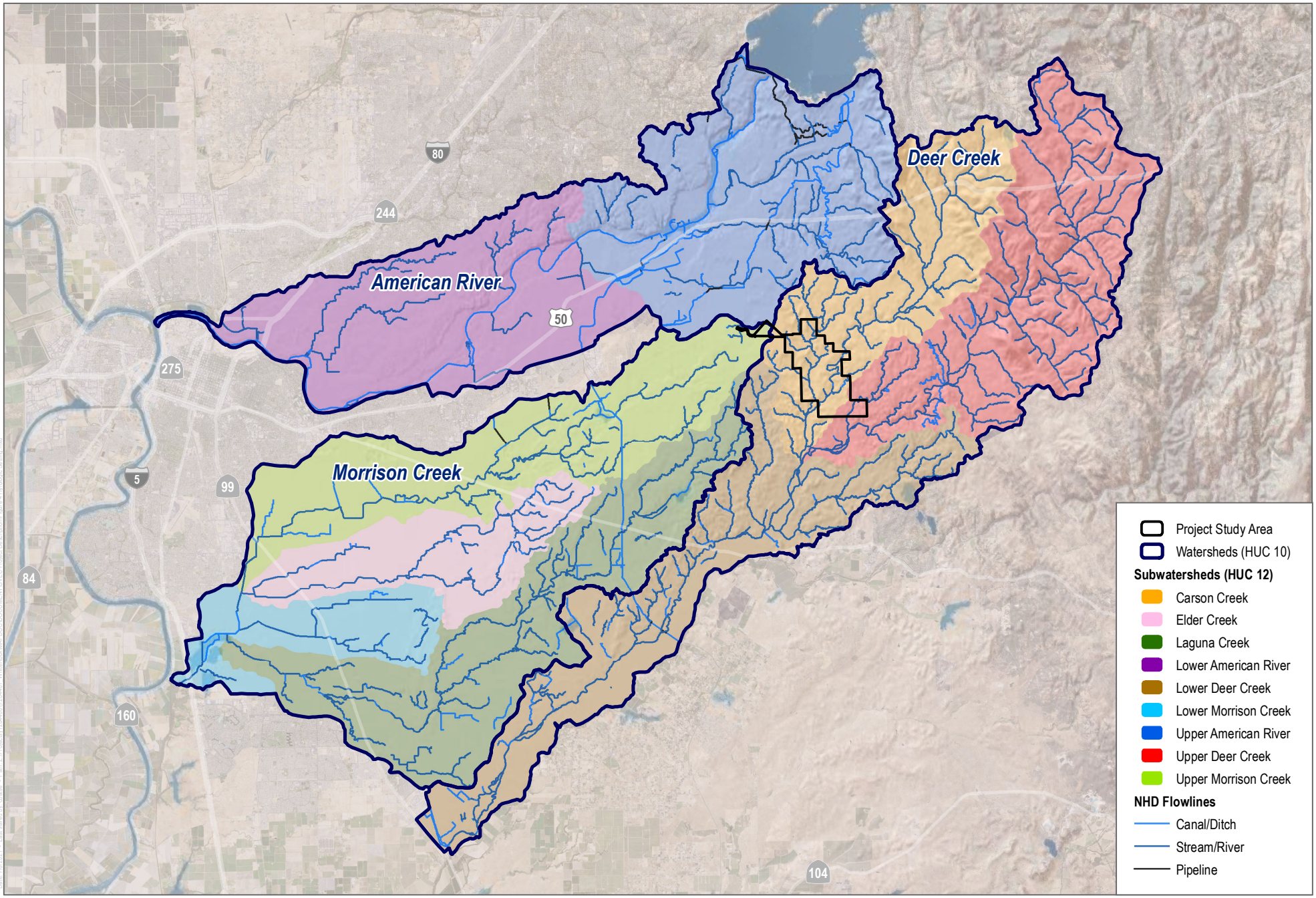
0 1,250 2,500 Feet

**FIGURE 3**

Agriculture and Farmland

Coyote Creek Agrivoltaic Project

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SOURCE: USDA 2018

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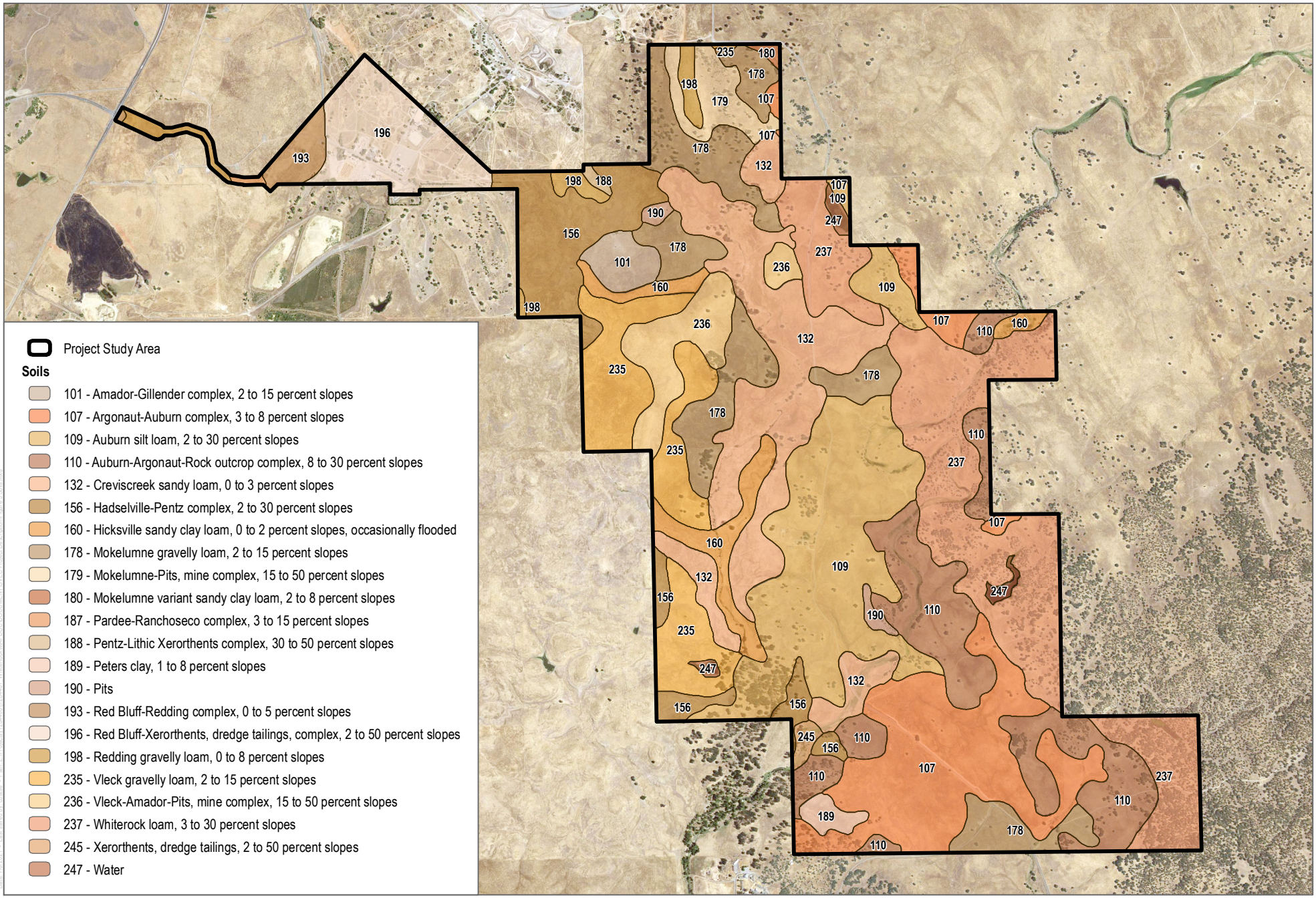
0 10,500 21,000 Feet

**FIGURE 4**

Hydrologic Setting

Coyote Creek Agrivoltaic Project

INTENTIONALLY LEFT BLANK




SOURCE: USDA 2018

DUDEK

0 1,250 2,500 Feet

**FIGURE 5**

Soils

Coyote Creek Agrivoltaic Project

INTENTIONALLY LEFT BLANK

# Appendix A

## Photographic References



**Photo 1** - Sheep utilizing shade from solar panels for vegetation management.



**Photo 2** - Sheep grazing and resting amidst solar panels for vegetation management.



**Photo 3** - Example apiary management at solar farm



**Photo 4** - Example of pollinator-friendly habitat.



**Photo 5** - View of proposed Project gen-tie route.




**Photo 6** - Overview of proposed Project gen-tie route.



**Photo 7** - Gen-tie of similar 230 kV switchyard located in Sacramento County.



**Photo 8** – Example of 230 kV substation and monopole gen-tie.



**Photo 9** - Example gen-tie and substation.

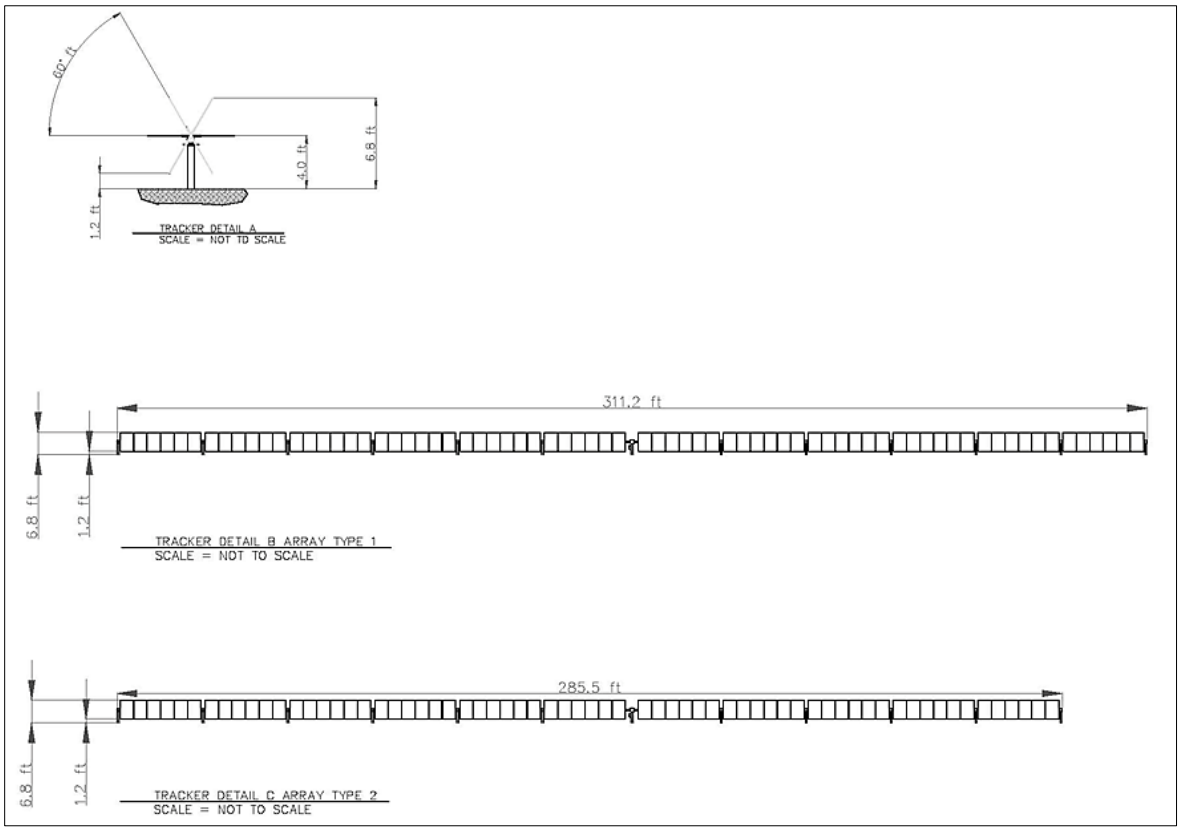



**Photo 10** – Proposed Project conceptual tracker details.

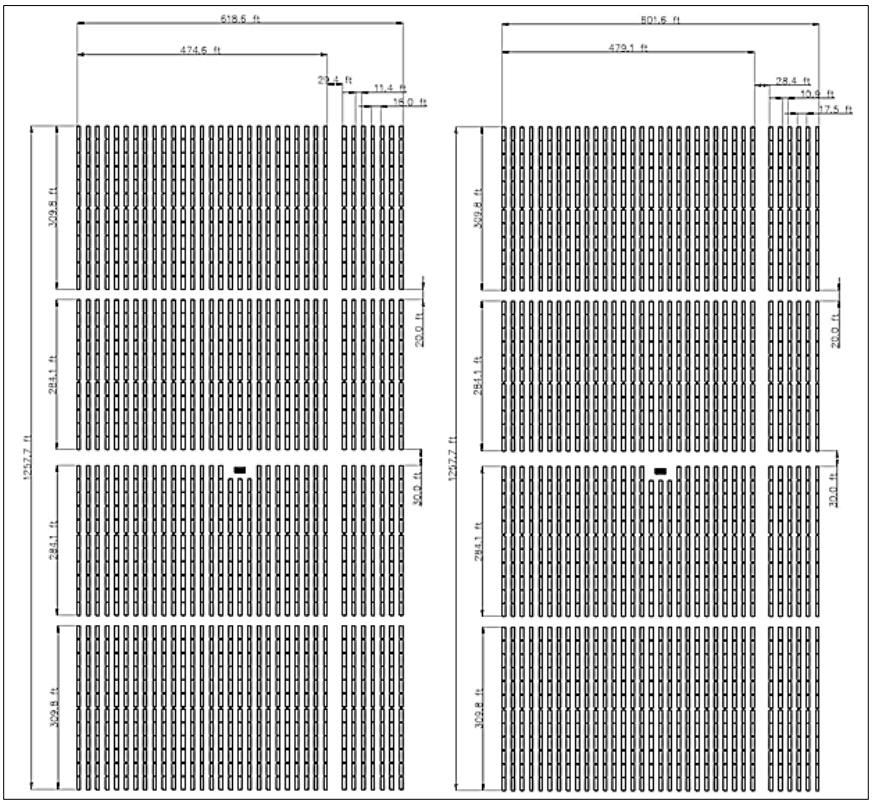



**Photo 11** – Proposed Project conceptual array block details.

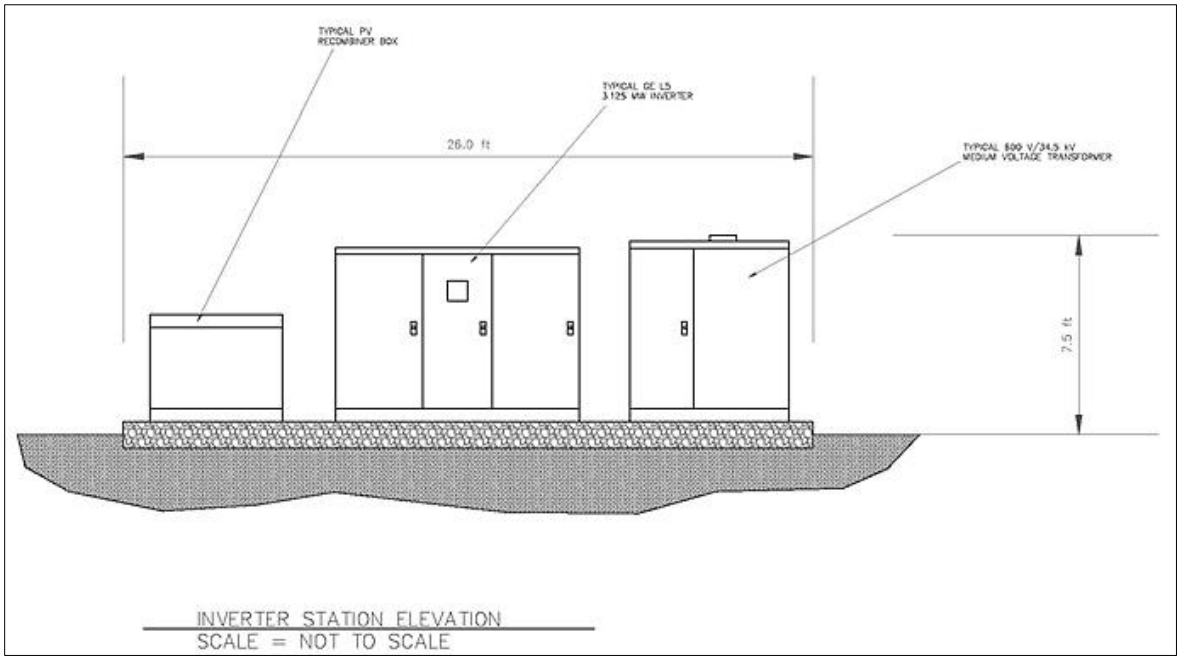



**Photo 12** – Proposed Project typical inverter station.

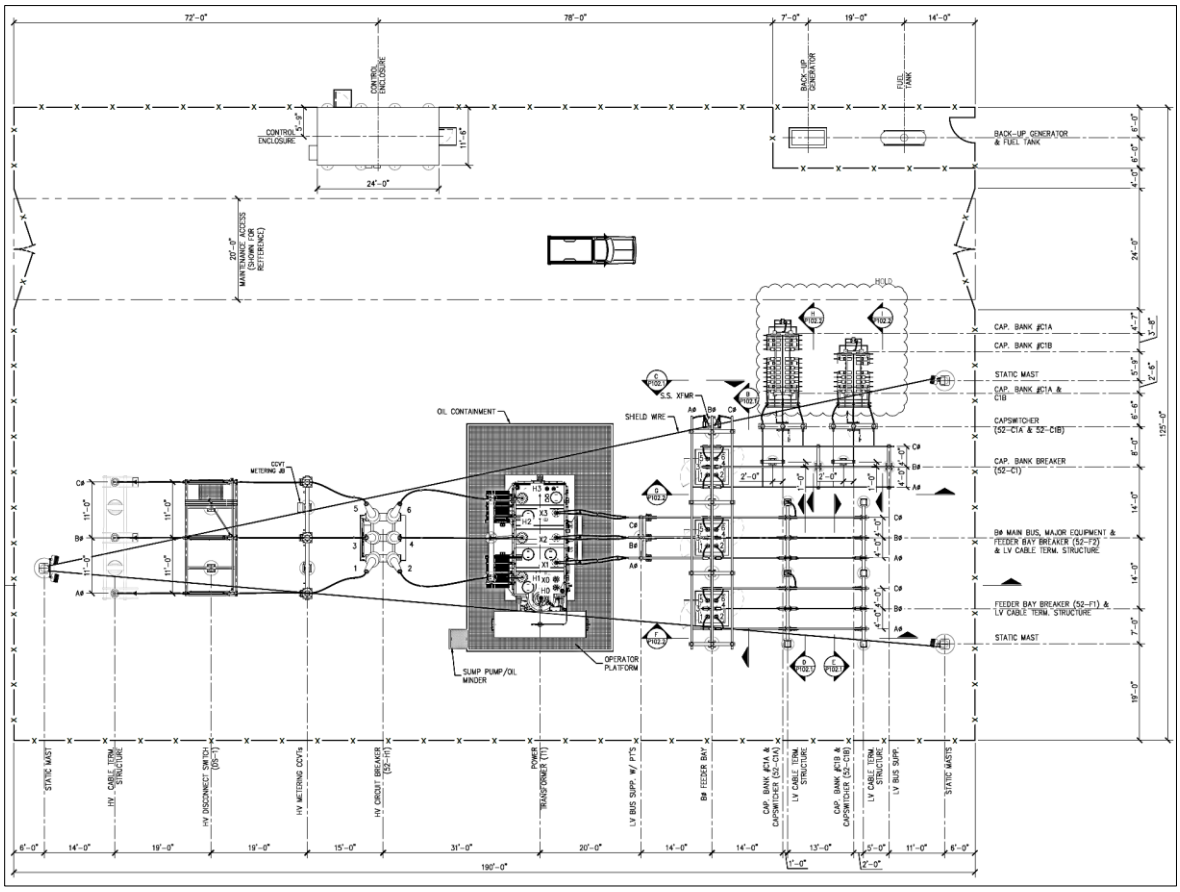



**Photo 13** – Proposed Project conceptual 230kV substation.

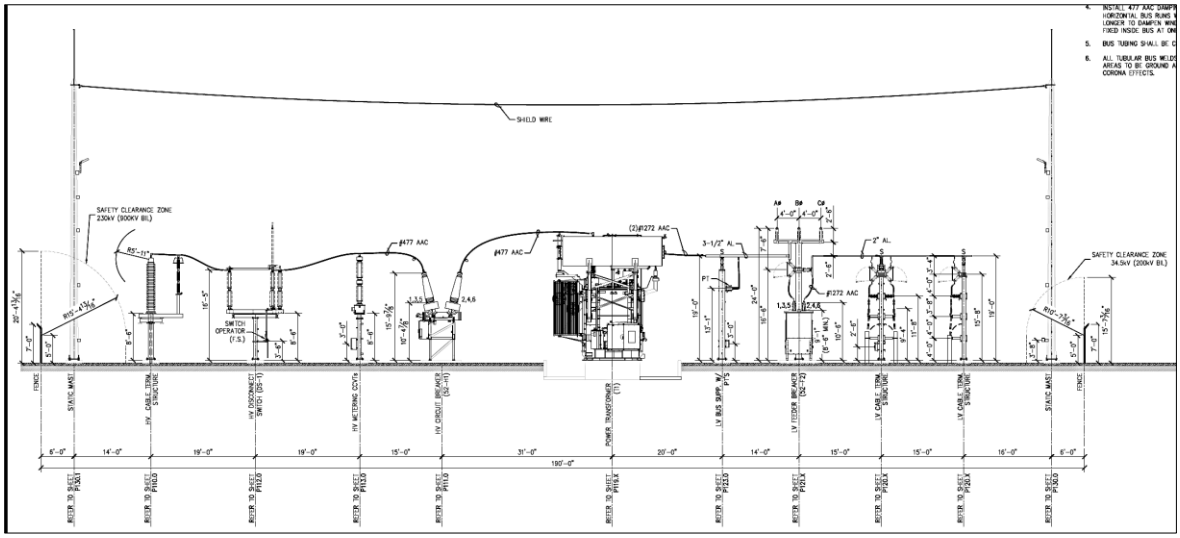



**Photo 14** – Proposed Project conceptual substation elevation view.



**Photo 15** – Example of solar batteries in a building.



**Photo 16** – Examples of battery storage containers.




**Photo 17** - Example solar facilities signage.



**Photo 18** - View of similar solar facility from 100 feet away.



**Photo 19** – Example of a typical access gate at a solar facility.



**Photo 20** – Example of typical fencing and single axis trackers at a solar facility.



**Photo 21** - View of proposed Project site from Scott Road

# Reference

1859 Oregon's Magazine. 2019. "A Solar Apiary Combines Solar Power and Pollination". Think Oregon, Business, James Sinks. July 23, 2019. Accessed July 2021. https://1859oregonmagazine.com/think-oregon/a-solar-apiary-combines-solar-power-and-pollination/

County of Sacramento
Office of Planning and Environmental Review (PER)
827 7th Street, Room 225
Sacramento, CA 95814
(916) 874-6141

## Supplemental Application Form

## Special Development Permit

Special Development Permits shall not be granted for uses or activities which are not otherwise expressly authorized by the Zoning regulation governing the parcel.

---

In order for a Special Development Permit to be granted, mandatory findings must be made. To assist in understanding why a Special Development Permit is necessary for your project, please describe how your project qualifies for the following types of findings as applicable.

**Zoning Code Section 6.4.6.H.**

1. **General Finding for All Special Development Permits.** The appropriate authority shall not issue the Special Development Permit, unless it makes the following general findings**:**
    a. That the proposed development will carry out the intent of the General Plan and any applicable community plan;
    b. That the proposed development is of sufficient size and is designed so as to provide a desirable environment within its own boundaries;
    c. That the proposed development is compatible with existing and proposed land uses in the surrounding area;
    d. The proposed development is justified by the project design or by the substantial energy savings proposed pursuant to this Section. In the case of a residential area, the rearrangement of dwellings and the mixing of dwelling types shall be justified by larger and more usable open spaces;
    e. That there is adequate assurance that all necessary infrastructure will be installed at the scheduled times;
    f. That the existing or proposed utility services are adequate for the uses and population densities proposed; and
    g. That the proposed development will not be materially detrimental to the environment or to the health, safety, or general welfare of the residents of the development and the County.

The request is to be able to construct compacted native roads in lieu of roads with a dust free surface (paving). See attached for more details.

Special Development Permit
Coyote Creek Agrivoltaic Ranch
9/7/21

The proposed project is sited on ranching lands and desires to enhance the current land use by combining ranching activities with solar energy generation and storage. The solar generation and storage components will be removed at the end of the project life. The request is to construct compacted native dirt roads throughout the facility in lieu of a dust free surface (paving). In our experience compacted native roads in and around solar facilities with minimal traffic utilizing the roads generates minimal dust.

a. That the proposed development will carry out the intent of the General Plan and any applicable community plan;
Paving roads all over the ranch would be contrary to the general plan and the Williamson's Act/Ag Preserve's goals to preserve the ranching activities and provide grazing opportunities. Our proposed use of compacted native roads allows the soil to remain in place and makes it easier to restore vegetation to the area once the solar facilities are removed.

b. That the proposed development is of sufficient size and is designed so as to provide a desirable environment within its own boundaries;
The Barton Ranch is over 3,000 acres with rolling hills- some of which can be viewed from Scott Rd. Paving roads all over the Ranch would destroy the rural character of the ranch; conversely, maintaining compacted native roads would preserve the rural character.

c. That the proposed development is compatible with existing and proposed land uses in the surrounding area;
The Ranch is surrounded by ranches, mining and Prairie City State Vehicle Recreation Area which utilize native dirt roads.

d. The proposed development is justified by the project design or by the substantial energy savings proposed pursuant to this Section. In the case of a residential area, the rearrangement of dwellings and the mixing of dwelling types shall be justified by larger and more usable open spaces;
Minimal dust will be generated from the roads since the roads will be compacted and few vehicles will utilize the road post construction. During construction water trucks will be utilized to prevent dust.

e. That there is adequate assurance that all necessary infrastructure will be installed at the scheduled times;
These roads will be sufficient for maintenance of the facility.

f. That the existing or proposed utility services are adequate for the uses and population densities proposed; and
These roads will be sufficient for the minimal traffic created during maintenance of the facility.

g. That the proposed development will not be materially detrimental to the environment or to the health, safety, or general welfare of the residents of the development and the County.
Leaving the roads unpaved will improve the environment and make it easier to revegetate the roads in the future. Given the compaction that will take place, and the minimal use of the the roads, the roads will not generate material amounts of dust.

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# Special Development Permit – Reduction in Lot Area or Width

## Zoning Code Section 6.4.6.H.

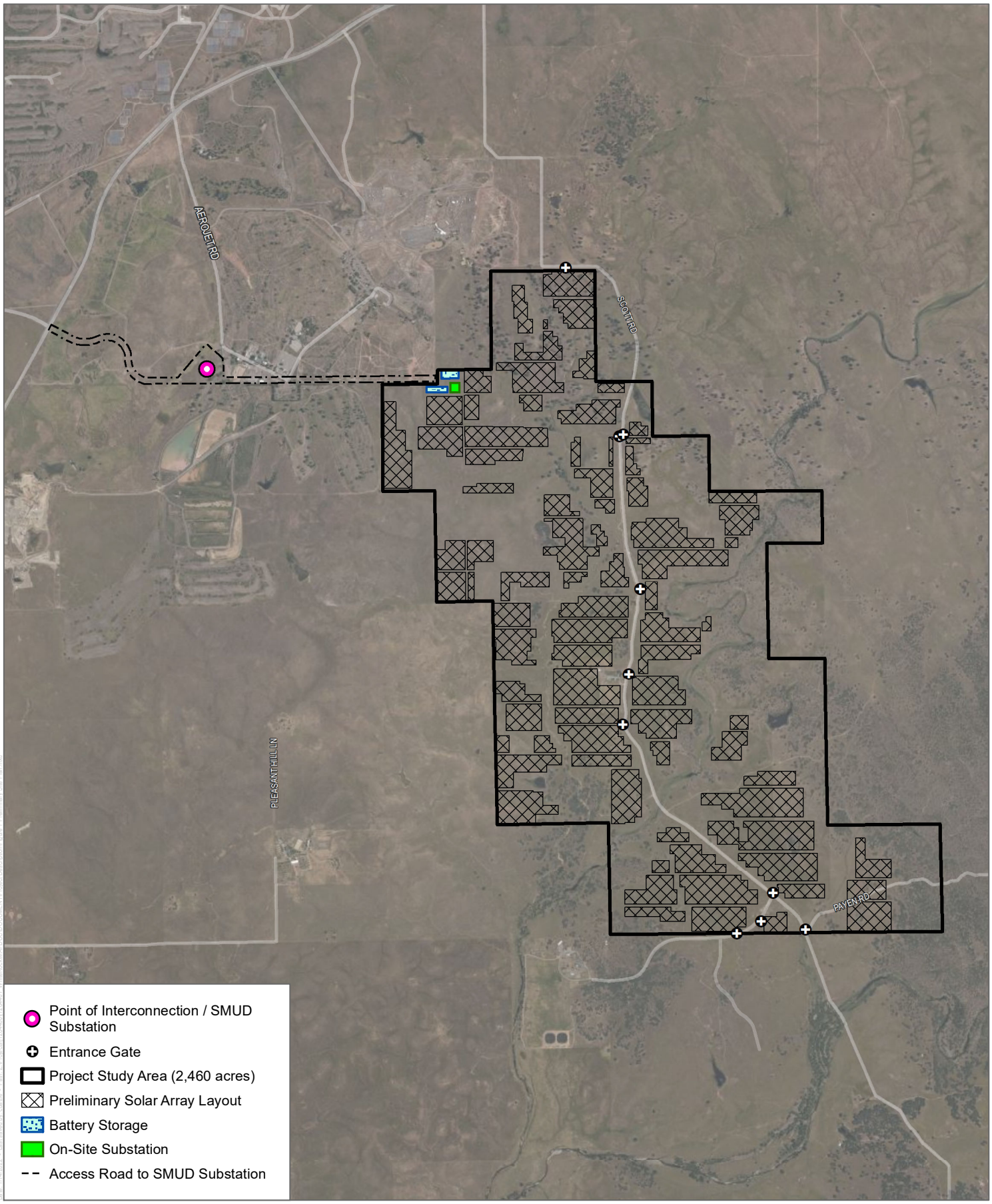
2. **Reduction in the Minimum Lot Area or Width Standards in Residential Zoning District for Lots Created by a Tentative Parcel Map.** In addition to the general findings in Section 6.4.6.H.1, the appropriate authority shall not issue a Special Development Permit to provide greater flexibility from and alternatives to the minimum lot area or minimum lot width requirements of this Code for residential zoning districts, unless it makes one or more of the following findings:
    a. Dedication for public streets or other facilities is required that is in excess of dedication normally required, pursuant to the adopted County Transportation Plan or otherwise required by a public agency.
    b. The location of natural features or existing site improvements will cause odd or irregular lot shapes if strict adherence to lot area and/or width standards is required.
    c. An existing nonresidential use, or a nonresidential use proposed concurrently with another entitlement, does not require the minimum parcel size required by the zoning district. Such nonresidential uses may include institutional uses such as day care centers, places of worship, private schools, hospitals, fraternal lodges, and public buildings. Conveyance of residential development rights may be required as a condition of the lot size reduction.
    d. The proposed lot area or configuration is sufficient to provide usable yard areas and a desirable residential environment, based on the proposed development as approved by the Design Review Administrator.
    e. Two-thirds or more of the legally created lots existing within 500 feet of the proposed parcel map are of similar size or shape in the same zoning district.
    f. Two-thirds or more of the legally created lots existing within 500 feet of the proposed parcel map are of similar size or shape in the same zoning district.
    g. The project consists of a remainder lot created prior to May 1983 as a result of a gift deed conveyance to a nonprofit charitable organization or to a college or university level education facility.
    h. The project is located within a Neighborhood Preservation Area (NPA) and maintenance of the existing zoning is an integral part of the NPA. The proposed lot exception would be consistent with the intent of the NPA, policies of the Community Plan and General Plan, and compatible with the existing lotting pattern in the immediate vicinity.

County of Sacramento
Office of Planning and Environmental Review (PER)
827 7th Street, Room 225
Sacramento, CA 95814
(916) 874-6141

## Special Development Permit – Reduction in Public Street Frontage

**Zoning Code Section 6.4.6.H.**

3. **Reduction in the Minimum Public Street Frontage Standards.** In addition to the general findings in Section 6.4.6.H.1, the appropriate authority shall not issue a Special Development Permit to provide greater flexibility from and alternatives to the minimum public street frontage requirements or the road improvement standards of this Code to permit the construction and use of a single-family dwelling, mobile home, or accessory building, unless it makes all of the following findings.
    a. Adequate provisions are made for the prevention of dust or other nuisances or hazards to surrounding properties resulting from the use of public streets and drives.
    b. Adequate provision can be made for future street right-of-way and improvements.
    c. Adequate provisions are made for emergency and service provider vehicles.




SOURCE: USGS 2018; SSHCP

DUDEK

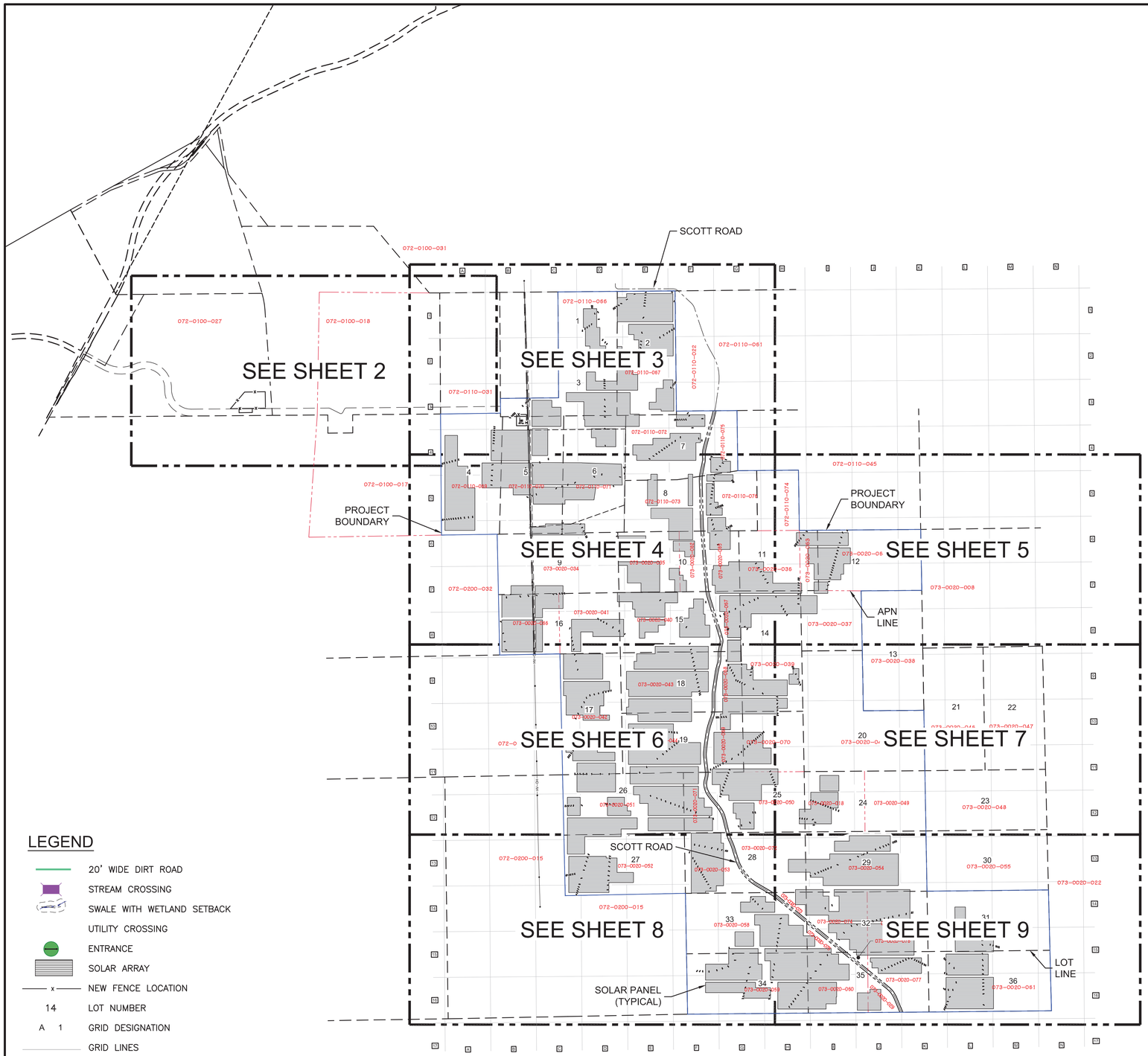
0 1,000 2,000 Feet

NAD1983, CA State Plane Zone II

**FIGURE 1**

Preliminary Site Plan

Coyote Creek Agrivoltaic Project




## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- x NEW FENCE LOCATION
- 14 LOT NUMBER
- A 1 GRID DESIGNATION
- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- 210 PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

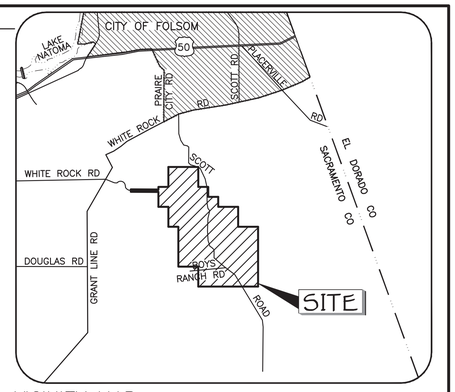
SHEET LOCATION INDEX

BENCH MARK 01D-38 ELEVATION 131.32, NAVD 88 DATUM

2" BRASS DISC STAMPED "SACRAMENTO CO. DEPT. OF PUBLIC WORKS CO. B.M. 10-38" LOCATED IN WEST EDGE OF EAST CONCRETE WALK OVER NORTH ABUTMENT OF CONCRETE BRIDGE ON DILLARD RD. ACROSS THE COSUMNES RIVER APPROX. 0.10 MILE SOUTH OF JACKSON HWY (STATE ROUTE 16) LEVELS RUN FROM U.S.C.& G.S. B.M. T-859. (FEBRUARY 1964)

SHEET INDEX


| | |
|---|---|
| SHEET 1 | COVER SHEET |
| SHEET 2 | SITE PLAN |
| SHEET 3 | SITE PLAN |
| SHEET 4 | SITE PLAN |
| SHEET 5 | SITE PLAN |
| SHEET 6 | SITE PLAN |
| SHEET 7 | SITE PLAN |
| SHEET 8 | SITE PLAN |
| SHEET 9 | SITE PLAN |
| SHEET 10 | DETAILS |


VICINITY MAP

NO SCALE

**OWNER:**
BARTON/MOSHER/HANFORD/MILGATE ETAL
P.O. BOX 1076
WEST SACRAMENT, CA 95691

**APPLICANT/DEVELOPER:**
SACRAMENTO VALLEY ENERGY CENTER LLC
DANIEL MENAHEM
1166 AVE OF THE AMERICAS, 9th FLOOR
NY, NY 10036
PH. (202) 390-7772

**ENGINEER:**
BAKER-WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CALIFORNIA 95608
PH. (916) 331-4336
FAX (916) 331-4430

**ASSESSOR'S PARCEL NUMBERS:**
072-0110- 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076 073-0020-018, 029, 034, 035, 036, 037, 039, 040, 041, 042, 043, 044, 045, 049, 050, 051, 052, 053, 054, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077

TOTAL SITE PROPERTY AREA: 2,530± AC
TOTAL AREA WITHIN PROPOSED FENCING: 1,213± AC

**EXISTING ZONING:**
AG-20

**SEWER:**
SEPTIC

**WATER SUPPLY:**
OMOCHUMNA-HARTELL WATER DISTRICT

**FIRE PROTECTION:**
SAC-METRO FIRE DISTRICT

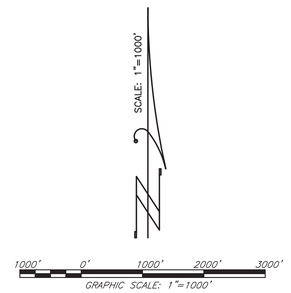
**TELEPHONE SERVICE:**
A T & T

**ELECTRICAL SERVICE:**
S.M.U.D.

**GAS SUPPLY:**
PROPANE

**SCHOOL DISTRICT:**
ELK GROVE

**PARK DISTRICT:**
SACRAMENTO COUNTY CSA4B




# COVER SHEET
# SITE PLAN
# for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 1 OF 10


BAKER WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
Phone (916)331-4336•Fax (916)331-4430
EMAIL: office@bwengineers.com


JOB NO. 19-12-062

S:\BWEG Jobs\2019 jobs\19-12-062 Barton Ranch Solar\Planning\19120620-SITE PLAN.dwg, CVR-SHT-1, 11/17/2021 10:37:06 AM, Heather Gillock

072-3160-002

EX. TRANSMISSION LINE
ESMT PER BK 3452 PG 530
AND PER BK 3617 PG 211

EX. TRANSMISSION LINE
ESMT PER BK 3212 PG 364
AND PER BK 3429 PG 164

072-0100-027

NOTE: RESTROOM FACILITIES
TO BE PROVIDED WITHIN THE
FENCED SWITCHYARD SITE

072-0100-018

EX. 150' ESMT PER
BK 20140418 PG 0311

(P) 100' ESMT

SWITCHYARD

(P) AERIAL POLE LINE

072-0100-016

072-0100-017

1

2

3

4

100'
CONSTRUCTION
EASEMENT

C/L EX. 25' WIDE
PG&E ESMT PER
BK 442-291 OF DEEDS

MATCH LINE SEE SHEET 3

BATTERY STORAGE

SUB-
STATION

072-0110-031

CROSSING #1

CROSSING #2

25' SETBACK LINE

MATCH LINE SEE SHEET 4

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- x — NEW FENCE LOCATION
- 14 — LOT NUMBER
- A 1 — GRID DESIGNATION
- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH — EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- 210 — PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'

GRAPHIC SCALE: 1"=200'

# SITE PLAN
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 2 of 10

BAKER WILLIAMS
ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
Phone (916)331-4336~Fax (916)331-4430
EMAIL: office@bwengineers.com

JOB NO. 19-12-062

S:\BWEG Jobs\2019 Jobs\19-12-062 Barton Ranch Solar\Planning\19120662-SITE PLAN.dwg, 2, 11/17/2021 4:11:21 PM, Heather Gillock

A B C D E F G

1 2 3 4

100' MINING ESMT PER 20031016 OR 2239

SCOTT RD

C/L EX. 25' WIDE PG&E ESMT PER BK 435-451 OF DEEDS

20' ACCESS ESMT 179 PM 17

MATCH LINE SEE SHEET 2

100' CONSTRUCTION EASEMENT

BATTERY STORAGE
072-0110-031

CROSSING #3

CROSSING #1

SUBSTATION

100' MINING ESMT PER 20031016 OR 2239

CROSSING #2

BATTERY STORAGE

072-0110-066

072-0110-067

072-0110-061

072-0110-022

072-0110-068

072-0110-075

NO GRADING NECESSARY IN THIS AREA

SCOTT RD

25' SETBACK LINE

60' RIGHT OF WAY

EX. 12.5' P.U.E.

25' SETBACK

EX. SCOTT RD. C/L

EX. E/P

MATCH LINE SEE SHEET 4

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- x NEW FENCE LOCATION
- 14 LOT NUMBER
- A 1 GRID DESIGNATION
- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'

GRAPHIC SCALE: 1"=200'

# SITE PLAN for COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 3 of 10

BAKER WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
Phone (916)331-4336-Fax (916)331-4430
EMAIL: office@bwengineers.com

JOB NO. 19-12-062

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MATCH LINE SEE SHEET 3

CROSSING #4

CROSSING #7

ENTRANCE #1

ENTRANCE #2

072-0110-

MATCH LINE SEE SHEET 5

SEE DETAIL 'A' ON SHEET 10

072-0100-017

072-0110-069

072-0110-070

072-0110-071

072-0110-073

072-0110-076

CROSSING #6

ESMT TO PT&T PER 740416 OR 741

NO GRADING NECESSARY IN THIS AREA

CROSSING #5

EX. 12.5' P.U.E.

EX. 12.5' P.U.E.

NO GRADING NECESSARY IN THIS AREA

C/L EX. 25' WIDE PG&E ESMT PER BK 435-451 OF DEEDS

073-0020-034

073-0020-035

073-0020-062

073-0020-

25' SETBACK LINE

20' ACCESS ESMT 179 PM 17

CROSSING #8

60' RIGHT OF WAY

25' SETBACK

NO GRADING NECESSARY IN THIS AREA

SCOTT RD

072-0200-032

CROSSING #9

073-0020-066

073-0020-041

073-0020-040

073-0020-065

ENTRANCE #3

10' TELEPHONE ESMT PER 3946 OR 147

MATCH LINE SEE SHEET 6

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- x NEW FENCE LOCATION
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- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'

GRAPHIC SCALE: 1"=200'

# SITE PLAN
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 4 of 10

BAKER WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
Phone (916)331-4336•Fax (916)331-4430
EMAIL: office@bwengineers.com

JOB NO. 19-12-062

S:\BWEG Jobs\2019 jobs\19-12-062 Barton Ranch Solar\Planning\191206\2-SITE PLAN.dwg, 4, 11/16/2021 12:44:08 PM, Heather Gilcrick

MATCH LINE SEE SHEET 4

MATCH LINE SEE SHEET 7

5

6

7

8

072-0110-045

073-0020-064

073-0020-037

073-0020-008

25' SETBACK LINE

ACCESS ESMT AGREEMENT
PER 20121129 OR 1328

CARSON CREEK

EL=330.32
STA/ GCP3

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
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- SOLAR ARRAY
- NEW FENCE LOCATION
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- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'
GRAPHIC SCALE: 1"=200'

# SITE PLAN
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 5 of 10

BAKER WILLIAMS ENGINEERING GROUP
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CARMICHAEL, CA 95608-0515
Phone (916)331-4336-Fax (916)331-4430
EMAIL: office@bwengineers.com

JOB NO. 19-12-062

S:\BWEG Jobs\2019 jobs\19-12-062 Barton Ranch Solar\Planning\19120620-SITE-PLAN.dwg, 5, 11/17/2021 4:19:46 PM, Heather Gillock

MATCH LINE SEE SHEET 4

CROSSING #10

NO GRADING NECESSARY IN THIS AREA

CROSSING #11

CROSSING #12

25' SETBACK LINE

EX. 12.5' P.U.E.

60' RIGHT OF WAY

ENTRANCE #4

25' SETBACK

EX. RANCH HOUSE TO REMAIN

SCOTT RD

ENTRANCE #5

20' ACCESS ESMT PER 179 PM 147

MATCH LINE SEE SHEET 7

MATCH LINE SEE SHEET 8

073-0020-043

073-0020-042

073-0020-041

073-0020-051

073-0020-071

073-0020-069

072-0200-033

072-0200-015

9

10

11

12

18

17

19

26

25

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- NEW FENCE LOCATION
- 14 LOT NUMBER
- A 1 GRID DESIGNATION
- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING APN LINE
- EXISTING LOT LINE
- PROJECT BOUNDARY
- SETBACK
- EXISTING TOPOGRAPHIC CONTOUR
- 210 PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'

GRAPHIC SCALE: 1"=200'

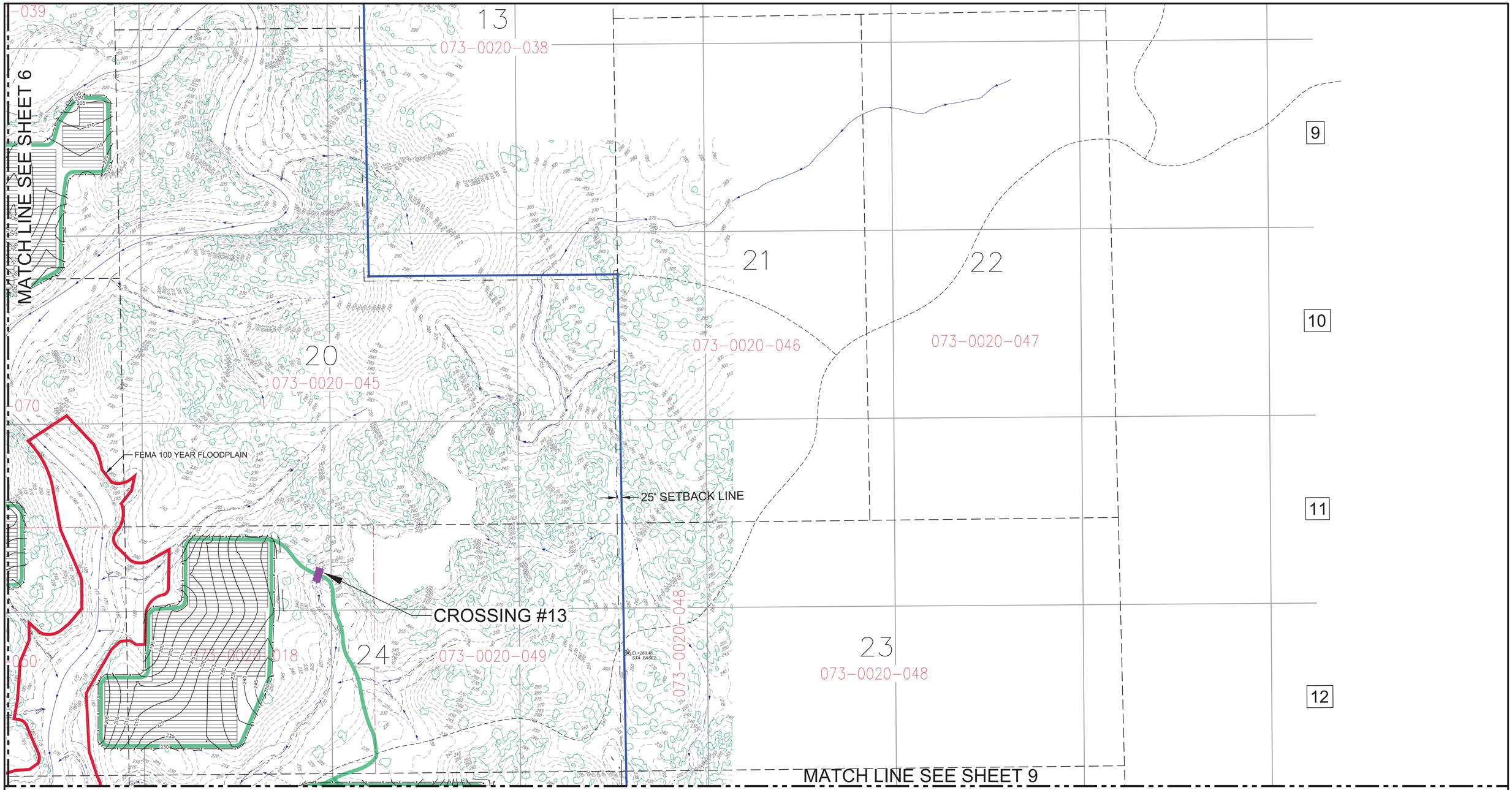
# SITE PLAN
for
# COYOTE CREEK AGRIVOLAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 6 of 10

BAKER WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
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EMAIL: office@bwengineers.com

JOB NO. 19-12-062

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## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- NEW FENCE LOCATION
- 14 LOT NUMBER
- A 1 GRID DESIGNATION
- GRID LINES
- TREE DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL
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- PROPOSED TOPOGRAPHIC CONTOUR
- FEMA FLOOD PLANE

SCALE: 1"=200'

200' 0' 200' 400' 600'
GRAPHIC SCALE: 1"=200'

# SITE PLAN
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 7 of 10

BAKER WILLIAMS ENGINEERING GROUP
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EMAIL: office@bwengineers.com

JOB NO. 19-12-062

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MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 9

13

14

15

16

072-020

073-0020-052

073-0020-072

073-0020-073

073-0020-058

073-0020-049

27

28

33

25' SETBACK

60' RIGHT OF WAY

EX. 12.5' P.U.E.

ESMT TO PT&T PER 740416 OR 743

SCOTT RD

PUBLIC HIGHWAY, ROAD, & ALL NEC. UTILITIES ESMT PER 770715 OR 402, PARCEL 1

10' TELEPHONE ESMT TO PT&T PER 700708 OR 369

PUBLIC HIGHWAY, ROAD & ALL NEC. UTILITIES PER 770715 OR 402 PARCEL 3 PARCEL 2

MONUMENT

072-0200-015

FEMA 100 YEAR FLOODPLAIN

10' TELEPHONE ESMT TO SACRAMENTO COUNTY PER 3946 OR 147

25' SETBACK LINE

EL=191.46 STA: 60+71

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
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SCALE: 1"=200'

200' 0' 200' 400' 600'

GRAPHIC SCALE: 1"=200'

# SITE PLAN
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 8 of 10

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JOB NO. 19-12-062

S:\BWEG Jobs\2019 Jobs\19-12-062 Barton Ranch Solar\Planning\19120062-SITE-PLAN.dwg, 8, 11/7/2021 4:32:16 PM, Heather Gillock

MATCH LINE SEE SHEET 7

MATCH LINE SEE SHEET 8

29
073-0020-054

30
073-0020-055

31
073-0020-056

32
073-0020-057

35
073-0020-059

36
073-0020-061

073-0020-074

073-0020-075

073-0020-076

073-0020-077

13

14

15

16

I J K L M N

PUBLIC HIGHWAY, ROAD & ALL NEC. UTILITIES ESMT PER 770715 OR 402

EX. 12.5' P.U.E.

25' SETBACK

25' SET BACK LINE

NO GRADING NECESSARY IN THIS AREA

SCOTT RD

ENTRANCE #6

60' RIGHT OF WAY

60' ROAD, HIGHWAY & PUBLIC UTILITIES PER 4091 OR 887

CROSSING #14

FEMA 100 YEAR FLOOD PLAIN

ENTRANCE #7

ENTRANCE #8

ENTRANCE #9

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
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SCALE: 1"=200'

200' 0' 200' 400' 600'

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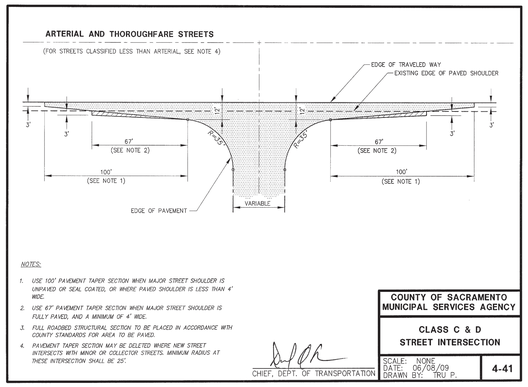
# SITE PLAN for COYOTE CREEK AGRIVOLTAIC RANCH

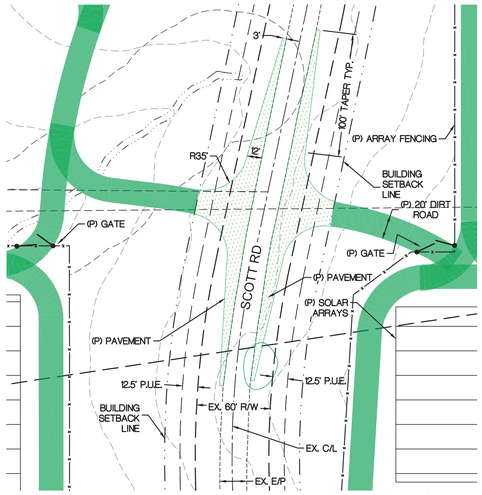
3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 9 of 10

BAKER WILLIAMS ENGINEERING GROUP
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JOB NO. 19-12-062

S:\BWEG Jobs\2019 Jobs\19-12-062 Barton Ranch Solar\Planning\19-12062-SITE-PLAN.dwg, 9, 11/19/2021 12:48:32 PM, Heather Gillock




DETAIL 'A'
SCALE: 1"=50'

FENCE DETAILS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FENCE POSTS AND RAILS

| ITEM | SHAPE | OUTSIDE DIMENSIONS INCHES | WEIGHT LBS./LIN. FT. |
|---|---|---|---|
| ** TERMINAL POSTS* | ROUND | 2.375 | 3.65 |
| | *ROUND | 2.375 | 3.12 |
| LINE POSTS* | ROUND | 1.90 | 2.72 |
| | *ROUND | 1.90 | 2.28 |
| TOP & BRACE RAILS* | ROUND | 1.66 | 2.27 |
| | *ROUND | 1.66 | 1.84 |

* GRADE B HIGH STRENGTH STEEL
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

CONSTRUCTION NOTES

1. MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
2. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL.
3. THE FENCING SHALL BE #9 GAGE FENCE FABRIC, STANDARD 2-INCH CHAIN LINK DIAMOND MESH.

GATE FRAME MEMBERS SIZE AND WEIGHT

| GATE FRAME | OUTSIDE DIMENSIONS INCHES | WEIGHT LBS./LIN. FT. |
|---|---|---|
| ROUND | 1.66 | 2.27 |
| *ROUND | 1.66 | 1.84 |

* GRADE B HIGH STRENGTH STEEL

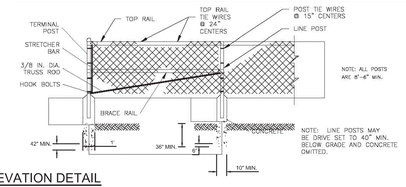
GATE POST SIZE AND WEIGHT

| GATE LEAF WIDTH OF 6 FT. OR LESS | OUTSIDE DIMENSIONS INCHES | WEIGHT LBS./LIN. FT. |
|---|---|---|
| ROUND | 2.875 | 5.79 |
| *ROUND | 2.875 | 4.64 |

* GRADE B HIGH STRENGTH STEEL

NOTES:

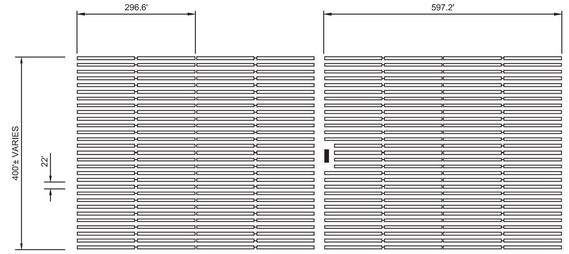
1. FENCING TO BE CHAIN LINK WITH 3 STRANDS BARBED WIRE.
2. THE CHAIN LINK FENCING PROPOSED SURROUNDING THE SOLAR FACILITY SHALL BE PAINTED CHAIN LINK IN EARTHEN COLOR OF BROWN ALONG THE PUBLIC RIGHT-OF-WAY AND IF ADJACENT TO NEIGHBORING PROPERTIES.




CHAINLINK FENCE ELEVATION DETAIL
NTS

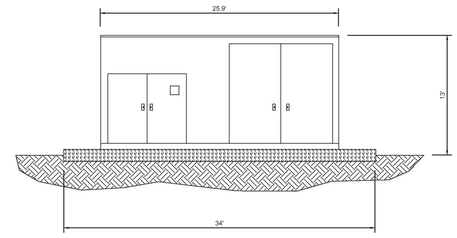
NOTES:

1. PRELIMINARY DRAWING FOR REFERENCE ONLY.
2. FOR INFORMATION PURPOSES. ACTUAL INVERTER STATION DESIGN WILL VARY.
3. CHAINLINK FENCE TO BE 6 FT IN HEIGHT WITH SIMILAR OR EQUIVALENT CONSTRUCTION AS SHOWN ON CHAINLINK FENCE DETAIL THIS SHEET.
4. HAZARDOUS VOLTAGE SIGNS TO BE PLACED ON ALL GATES AND DOORS AND PLACED ON FENCE AS SHOWN ON CHAINLINK FENCE WARNING SIGNS DETAIL THIS SHEET.
5. HAZARDOUS VOLTAGE SIGNS TO BE PLACED 75 FT ON MAIN ROADS/ACCESS WAYS AND 150 FT IN REMOTE LOCATIONS.
6. ACTUAL TRACKER DESIGN MAY VARY.

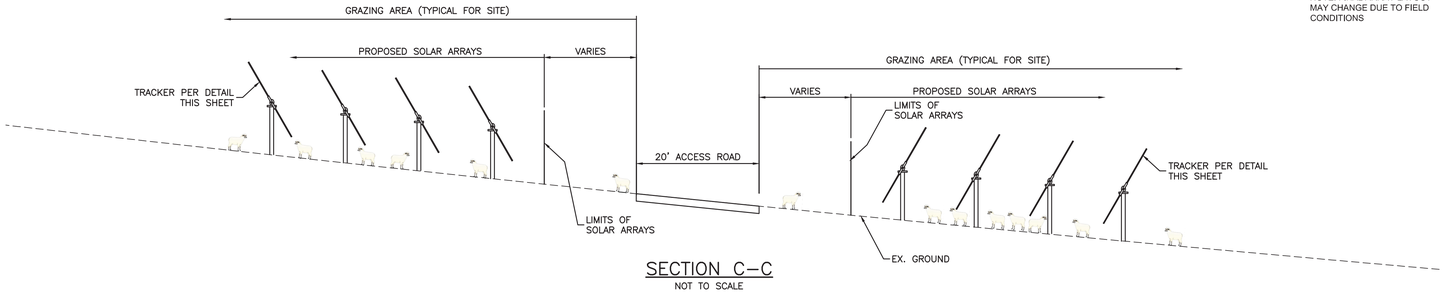



SOLAR ARRAY LAYOUT DETAIL
NTS

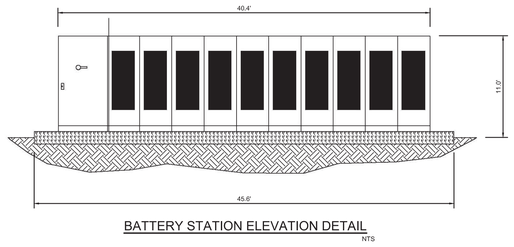
NOTE: FINAL ARRAY LAYOUT MAY CHANGE DUE TO FIELD CONDITIONS



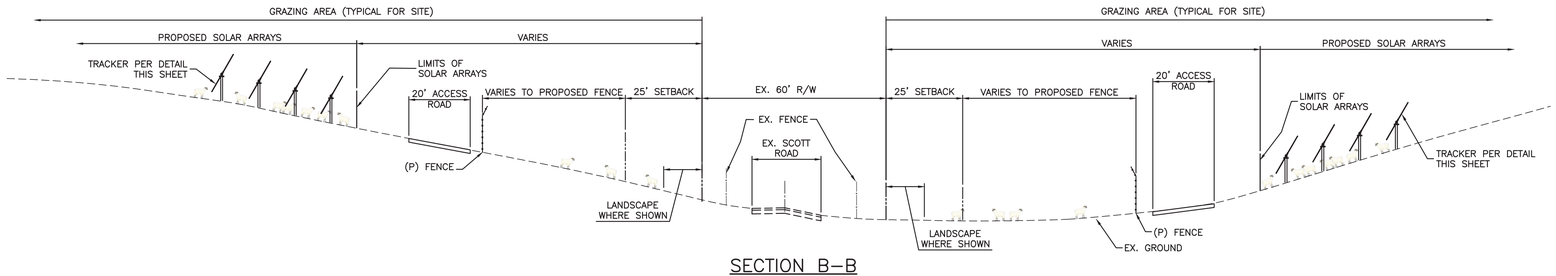

INVERTER MV STATION ELEVATION DETAIL
NTS



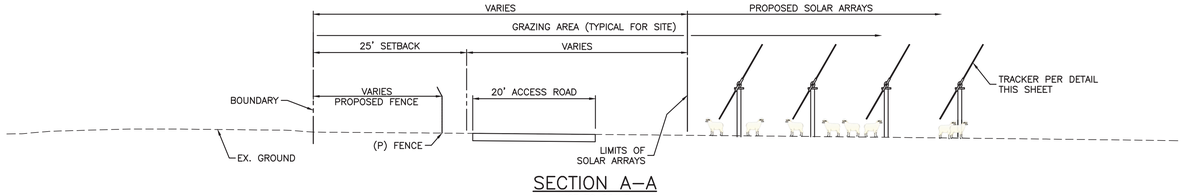

SECTION C-C
NOT TO SCALE



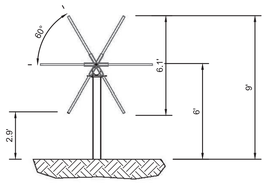

BATTERY STATION ELEVATION DETAIL
NTS




SECTION B-B
NOT TO SCALE




SECTION A-A
NOT TO SCALE




TRACKER DETAIL
NTS




CHAINLINK FENCE WARNING SIGNS DETAIL
NTS

# DETAIL SHEET
for
# COYOTE CREEK AGRIVOLTAIC RANCH

3830 SCOTT ROAD
SACRAMENTO COUNTY, CALIFORNIA
NOVEMBER, 2021
SHEET 10 of 10

BAKER WILLIAMS ENGINEERING GROUP
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CARMICHAEL, CA 95608-0515
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JOB NO. 19-12-062

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INTERIOR LIVE OAK THICKET (TYPICAL)

NATIVE SHRUB HEDGEROW (TYPICAL)

SCOTT ROAD

SOLAR ARRAYS

GRAVEL ACCESS ROAD

6' CHAIN LINK FENCE

EXISTING SWALE

WETLAND SETBACK

W

EXISTING WELL

MATCHLINE AA (SEE SHEET LA-2)

SCALE: 1"=100'

100' 0' 100' 200' 400'

GRAPHIC SCALE: 1"=100'

# COYOTE CREEK AGRIVOLTAIC RANCH NORTH PRELIMINARY LANDSCAPE PLAN

SACRAMENTO COUNTY, CALIFORNIA

AUGUST 31, 2021

Garth Ruffner Landscape Architect (916) 797-2576
4120 Douglas Blvd., Suite 306, #301, Roseville, CA 95746-5936
GarthRuffner.com California R.L.A. #2608

LA-1

OF 4

JOB NO. 40056

MATCHLINE AA (SEE SHEET LA-1)

EXISTING SWALE

WETLAND SETBACK

SOLAR ARRAYS

GRAVEL ACCESS ROAD

6' CHAIN LINK FENCE

INTERIOR LIVE OAK THICKET (TYPICAL)

SCOTT ROAD

EXISTING TREE TRUNKS

EXISTING TREE CANOPY (PER ARBORIST)

EXISTING TREE CANOPY (FROM AERIAL)

W

MATCHLINE BB (SEE SHEET LA-3)

SCALE: 1"=100'

100' 0' 100' 200' 400'

GRAPHIC SCALE: 1"=100'

# COYOTE CREEK AGRIVOLTAIC RANCH NORTH CENTRAL PRELIMINARY LANDSCAPE PLAN

SACRAMENTO COUNTY, CALIFORNIA

AUGUST 31, 2021

Garth Ruffner Landscape Architect (916) 797-2576
4120 Douglas Blvd., Suite 306, #301, Roseville, CA 95746-5936
GarthRuffner.com California R.L.A. #2808

LA-2

OF 4

JOB NO. 40056

MATCHLINE BB (SEE SHEET LA-2)

EXISTING TREE TRUNKS

EXISTING TREE CANOPY (PER ARBRORIST)

EXISTING TREE CANOPY (FROM AERIAL)

6' CHAIN LINK FENCE (TYPICAL)

EXISTING SWALE

WETLAND SETBACK

FEMA 100 YEAR FLOODPLAIN

INTERIOR LIVE OAK THICKET (TYPICAL)

NATIVE SHRUB HEDGEROW (TYPICAL)

MATCHLINE CC (SEE SHEET LA-4)

SCOTT ROAD

W

SCALE: 1"=100'

100' 0' 100' 200' 400'

GRAPHIC SCALE: 1"=100'

# COYOTE CREEK AGRIVOLTAIC RANCH SOUTH CENTRAL PRELIMINARY LANDSCAPE PLAN

SACRAMENTO COUNTY, CALIFORNIA

AUGUST 31, 2021

Garth Ruffner Landscape Architect (916) 797-2576
4120 Douglas Blvd., Suite 306, #301, Roseville, CA 95746-5936
GarthRuffner.com California R.L.A. #2808

LA-3

OF 4

JOB NO. 40056

MATCHLINE CC (SEE SHEET LA-3)

EXISTING TREE TRUNKS

EXISTING TREE CANOPY (PER ARBRORIST)

EXISTING TREE CANOPY (FROM AERIAL)

INTERIOR LIVE OAK THICKET (TYPICAL)

BOYS RANCH ROAD

SEE DETAIL A FOR TYPICAL LIVE OAK THICKET LAYOUT

SOLAR ARRAYS

GRAVEL ACCESS ROAD

6' CHAIN LINK FENCE

SCOTT ROAD

SCALE: 1"=100'

100' 0' 100' 200' 400'

GRAPHIC SCALE: 1"=100'

SOLAR ARRAY

GRAVEL ACCESS ROAD

6' CHAIN LINK FENCE

YOUNG OAK CANOPIES AT ABOUT 15 YEARS OF AGE. HEIGHTS SHOULD BE AROUND 15 FEET. ASSUMED LOSSES OF ABOUT 1/2 OF 3 YEAR SEEDLINGS ARE SHOWN.

OAK SEEDLINGS AT ABOUT 3 YEARS OF AGE, 2 YEARS BEFORE TEMPORARY IRRIGATION IS CUT OFF. HEIGHTS SHOULD BE AROUND 4 FEET. ASSUMED LOSSES OF ABOUT 1/3 UP TO THIS TIME ARE SHOWN.

## TYPICAL OAK THICKET LAYOUT PLAN
SCALE: 1"=20'

DETAIL A



LIVE OAK (QUERCUS WISLIZENII) IS NATIVE TO THE AREA & REQUIRES NO SUPPLEMENTARY WATER, PARTICULARLY WHEN ESTABLISHED. THIS TREE, OFF DILLARD ROAD, WAS PROBABLY PLANTED AS AN ACORN BY BIRDS AROUND 5 YEARS AGO. EVEN WITHOUT IRRIGATION, IT IS ALREADY CREATING A SUBSTANTIAL SCREEN OF THE ADJACENT SOLAR PANELS. SCREENING WILL ONLY IMPROVE AS THE TREE AGES.



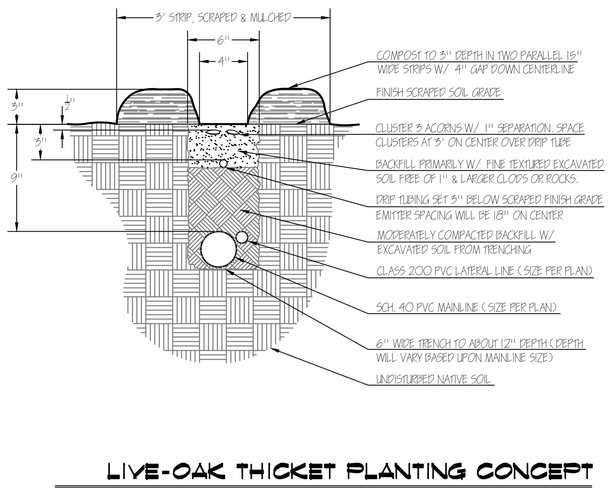
OAK GROVE THICKET CONCEPT: LIVE OAKS WOULD BE PLANTED AT 3' ON CENTER FROM ACORNS AT LEAST 50' FROM SCOTT ROAD. THE TREES WOULD RECEIVE SUPPLEMENTARY DRIP IRRIGATION FOR 3-5 YEARS TO ENSURE RAPID SCREENING.



HEDGEROW CONCEPT: HEDGEROWS WOULD BE ESTABLISHED INTERMITTENTLY NEAR SCOTT ROAD TO SCREEN PANELS THAT ARE TOO CLOSE TO THE ROAD TO BE SCREENED WITH TREES. THE MIXED NATIVE SHRUBS WOULD TYPICALLY ACHIEVE A MAXIMUM HEIGHT OF AROUND 10'.



MIXED NATIVE SHRUBS THAT CAN THRIVE WITH NO SUPPLEMENTARY WATER AFTER ESTABLISHMENT COULD INCLUDE COMMON MANZANITA (ARCTOSTAPHYLOS MANZANITA), CALIFORNIA COFFEEBERRY (FRANGULA CALIFORNICA) & BLACK ELDERBERRY (SAMBUCUS NIGRA). IN LOW AREAS THAT COLLECT RAINFALL, PLANTS MAY ALSO INCLUDE COMMON BUTTONBRUSH (CEPHALANTHUS OCCIDENTALIS) & CALIFORNIA WILD ROSE (ROSA CALIFORNICA). THE SHRUBS WOULD BE DRIP IRRIGATED FOR 3-5 YEARS.




## LIVE-OAK THICKET PLANTING CONCEPT
NOT TO SCALE

DETAIL B

# COYOTE CREEK AGRIVOLTAIC RANCH SOUTH PRELIMINARY LANDSCAPE PLAN & CONCEPT DETAILS

SACRAMENTO COUNTY, CALIFORNIA

AUGUST 31, 2021


Garth Ruffner Landscape Architect (916) 797-2576
4120 Douglas Blvd., Suite 306, #301, Roseville, CA 95746-5936
GarthRuffner.com California R.L.A. #2808


LA-4

OF 4

JOB NO. 40056

**Garth Ruffner Landscape Architect (916) 797-2576**

September 15, 2021

# COYOTE CREEK AGRIVOLTAIC RANCH
# DRAFT LANDSCAPE CONCEPT - STAGING

I. Concept Summary:
   A. A continuous screen planting between Scott Road and the proposed solar arrays is not desirable and some distant views should occur, even if they include the proposed structures.
   B. Screening would be implemented primarily with dense thickets of evergreen oaks *(Quercus wislizenii)*.
   C. Areas close to the road or under overhead lines would be screened with hedgerows of native shrubs.

II. Testing Phase
   A. The proposed test plot would be located to the south of the existing home at the Barton Ranch (3830 Scott Road), east of the existing cell tower and south of the existing fence.
   B. The test plot would be fenced as necessary to exclude livestock (but not deer).
   C. About 100 live oak acorns would be collected for this work when ripe, roughly in October of this year.
   D. The irrigation and planting concept (see below) would be implemented.
   E. Acorns would be irrigated to simulate normal rainfall through the winter if drought conditions persist.
   F. Infrequent but thorough irrigation would occur during the normal dry season to encourage healthy, deep root growth.
   G. Conditions would be photographed and reported to designated County representatives on a monthly basis. Observation visits could be scheduled in advance.
   H. The operations described below would be modified as necessary based on experience with the test plot.
   I. Maintenance would occur as described below.

III. Site Preparation
- A. Acorns would be obtained when ripe (roughly in October) prior to the construction year(s).
- B. Proposed oak thickets and hedgerows would be flagged for County review prior to the implementation of the work.
  1. Proposed screen planting would be adjusted as necessary based on comments from the County, the project landscape architect and other members of the project team.
  2. When the layout is acceptable to the County's representative, work would proceed.
- C. Existing vegetation would be scraped off in a 3' strip, following the approved alignment. Cleared vegetation would be composted on site.

IV. Irrigation
- A. A six inch wide trench would be cut down the center of the cleared strip to a depth of about 12 inches.
- B. Irrigation mainline would be installed in the bottom of the trench and remote control valves would be connected. Depending on the location, not all trenches would have mainline.
- C. The mainline would be buried with about 3 inches of cover, using the trenching spoils. The backfill would be moderately compacted.
- D. Lateral pipe would be installed with a few inches of clearance from the mainline so young, expanding roots growing between the pipes do not cause damage. Based upon the piping layout, not all trenches would include lateral lines.
- E. Lateral lines would be covered with trenching spoils to about 3 inches from the surface of the scraped soil area. The backfill would be moderately compacted.
- F. Subsurface drip tubing with integral check valves and 0.9 gallon per hour emitters spaced at 18 inches on center would be installed.
- G. The drip tubing would be buried with trench spoils free of significant rocks or clods to about one inch below the scraped surface. The backfill will be minimally compacted.

V. Planting
- A. Planting would occur from late October to early December.
- B. Oak Thickets
  1. Acorns would be planted 12 inches apart down the center of the irrigated trench.
  2. The acorns would be buried with trench spoils free of significant rocks or clods to a depth of one to ½ inch. The backfill will be minimally compacted.

C. Native Shrub Hedgerows
    1. Trenches would be backfilled flush with the scraped grade.
    2. Shrubs would be planted from liner pots (2"x2"x3") set 2 feet apart down the center of the trench.
    3. Compost top dressing would be placed to a depth of 3 inches over the 3 foot wide cleared strip. One inch of clearance would be maintained between the plants and the top dressing.

VI. Maintenance - Year One
A. Plants would be irrigated to simulate normal rainfall through the winter if drought conditions persist.
B. Monitoring
    1. The tree planting will be monitored on a monthly basis until the first trees are visible, at which point monitoring will occur every other week.
    2. Shrub hedgerows will be monitored on at least every other week.
C. Where significant damage from deer or rodents is observed, tree establishment tubes will be installed.
    1. Young oaks would be evaluated and tubes would be placed over about ⅓ of the plants, with a minimum spacing of 3 feet and a maximum gap of 6 feet.
    2. All endangered shrubs would have tubes installed.
D. Weeding
    1. Light weeding would occur within the 3 foot wide strips as necessary during the normal monitoring visits.
    2. Thorough weeding would occur near the end of the rainy season.
E. Compost top dressing would be spread when young oaks are over 4 inches high. The top dressing would be spread to a depth of 3 inches over the 3 foot wide cleared strip. One inch of clearance would be maintained between the trees and the top dressing.
F. Replacements would occur roughly in February.
    1. Gaps exceeding 5 feet between oaks would be filled in with young live oaks from treeband pots (2"x2"x5"). Protective tubes would be installed on all replacement trees.
    2. Shrub replacements would occur from liner size pots wherever a gap of more than 6 feet occurs. Protective tubes would be installed if conditions warrant.
G. Infrequent but thorough irrigation would occur during the dry season to encourage healthy, deep root growth.

VII. Maintenance - Year Two

A. Replacements would occur roughly in November.
   1. Gaps exceeding 8 feet between oaks would be filled in with young live oaks from treeband pots (2"x2"x5"). Protective tubes would be installed on all replacement trees.
   2. Shrub replacements would occur from liner size pots wherever a gap of more than 6 feet occurs. Protective tubes would be installed if conditions warrant.

B. An observation meeting would occur on site between representatives of the County and the project team prior to the start of the rainy season.

C. Monitoring and light weeding would occur at 3 week intervals if survival rates and growth are satisfactory. If problems are noted, monitoring visits will be increased as necessary.

D. Plants would be irrigated to simulate normal rainfall through the winter if drought conditions persist. Longer run times with frequent starts would be used to insure the soil surrounding the initial trench is receiving water.

E. Thorough weeding would occur near the end of the rainy season.

F. Weaker oaks would be thinned to maintain a minimum distance of 2 feet between trees.

G. Infrequent but thorough irrigation would occur during the dry season to encourage healthy, deep root growth. Longer run times with frequent starts would be used to insure the soil surrounding the initial trench is receiving water.

VIII. Maintenance - Year Three

A. Replacements would occur roughly in November.
   1. Gaps exceeding 10 feet between oaks would be filled in with young live oaks from treeband pots (2"x2"x5"). Protective tubes would be installed on all replacement trees.
   2. Shrub replacements would occur from liner size pots wherever a gap of more than 8 feet occurs. Protective tubes would be installed if conditions warrant.

B. An observation meeting would occur on site between representatives of the County and the project team prior to the start of the rainy season.

C. Monitoring and weeding would occur at monthly intervals if survival rates and growth are satisfactory. If problems are noted, monitoring visits will be increased as necessary.

D. Plants would be irrigated to simulate normal rainfall through the winter if drought conditions persist. Longer run times with frequent starts would be used to insure the soil surrounding the initial trench is receiving water.

E. Weaker oaks would be thinned to maintain a minimum distance of 3 feet between trees.

F. Compost top dressing would be replenished as necessary to achieve a minimum depth of 3 inches.

G. Thorough irrigation would occur on a monthly basis during the dry season to encourage healthy, deep root growth. Longer run times with long delays between multiple starts would be used to insure the soil surrounding the initial trench is receiving water.

SCOTT ROAD

ENTRANCE #1

SEE SHEET 2 FOR OFF-SITE ELECTRICAL INFRASTRUCTURE

C/L EX. PG&E ESMT.

PROPOSED SUBSTATION

CROSSING #1

CROSSING #2

CROSSING #3

CROSSING #4

ENTRANCE #2

ENTRANCE #3

CARSON CREEK

CROSSING #5

CROSSING #6

CROSSING #7

CROSSING #8

C/L EX. PG&E ESMT.

CROSSING #9

CROSSING #10

ENTRANCE #4

CROSSING #11

ENTRANCE #5

CROSSING #12

CROSSING #13

EX. POWER POLES AND OVERHEAD LINES (TYPICAL)

ENTRANCE #6

50' SETBACK

LITTLE DEER CREEK

50' SETBACK

FEMA 100 YEAR FLOOD PLAIN

ENTRANCE #7

CROSSING #13

ENTRANCE #10

ENTRANCE #8

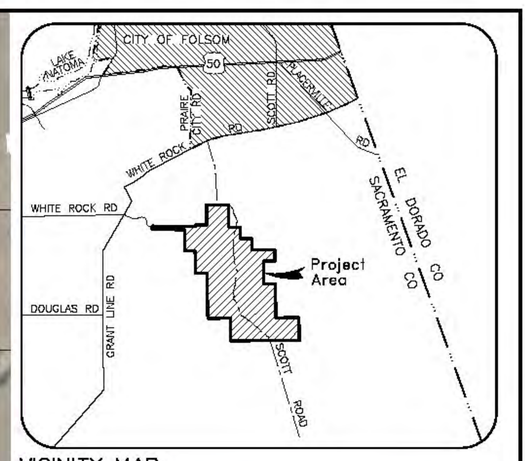
ENTRANCE #9

BOYS RANCH ROAD

CARSON CREEK

SCOTT ROAD

DEER CREEK




VICINITY MAP

NO SCALE

## LEGEND

- 20' WIDE DIRT ROAD
- STREAM CROSSING
- SWALE WITH WETLAND SETBACK
- UTILITY CROSSING
- ENTRANCE
- SOLAR ARRAY
- x NEW FENCE LOCATION
- 14 LOT NUMBER
- A 1 GRID DESIGNATION
- TREE TRUNK and DRIP LINE
- EXISTING UTILITY/POWER POLE
- HV-OH EXISTING HIGH VOLTAGE LINE and TOWER
- EXISTING WELL

**OWNER:**
BARTON/MOSHER/HANFORD/MILGATE ETAL
P.O. BOX 1076
WEST SACRAMENT, CA 95691

**APPLICANT/DEVELOPER:**
SACRAMENTO VALLEY ENERGY CENTER LLC
DANIEL MENAHEM
1166 AVE OF THE AMERICAS, 9th FLOOR
NY, NY 10036
PH. (202) 390-7772

**ENGINEER:**
BAKER-WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CALIFORNIA 95608
PH. (916) 331-4336
FAX (916) 331-4430

**ASSESSOR'S PARCEL NUMBERS:**
072-0110- 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076 073-0020-018, 029, 034, 035, 036, 037, 039, 040, 041, 042, 043, 044, 045, 049, 050, 051, 052, 053, 054, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077

TOTAL SITE PROPERTY AREA: 2,530± AC
TOTAL AREA WITHIN PROPOSED FENCING: 1,213± AC

**EXISTING ZONING:**
AG-20

**SEWER:**
SEPTIC

**WATER SUPPLY:**
OMOCHUMNA-HARTELL WATER DISTRICT

**FIRE PROTECTION:**
SAC-METRO FIRE DISTRICT

**TELEPHONE SERVICE:**
A T & T

**ELECTRICAL SERVICE:**
S.M.U.D.

**GAS SUPPLY:**
PROPANE

**SCHOOL DISTRICT:**
ELK GROVE

**PARK DISTRICT:**
SACRAMENTO COUNTY CSA48

SCALE: 1"=500'

500' 0' 500' 1000' 1500'

GRAPHIC SCALE: 1"=500'

# COYOTE CREEK AGRIVOLTAIC RANCH SITE PLAN

## SACRAMENTO COUNTY, CALIFORNIA

**JULY 20, 2021**

**Sheet 1 of 2**


BAKER WILLIAMS ENGINEERING GROUP
6020 RUTLAND DRIVE, SUITE 19
CARMICHAEL, CA 95608-0515
Phone (916)331-4336~Fax (916)331-4430
EMAIL: office@bwengineers.com


JOB NO. 19-12-062

S:\BWEG Jobs\2019 Jobs\19-12-062 Barton Ranch Solar\Planning\19120628-SITE-PLAN.dwg, Site Plan, 7/21/2021 8:35:40 PM, Duane Rosen

KOP 1 Existing

KOP 1 Visual Sim

KOP 2 Existing

KOP 2 Visual Sim

KOP 3 Existing

KOP 3 Visual Sim

KOP 4 Existing

KOP 4 Visual Sim

KOP 5 Existing

KOP 5 Visual Sim

KOP 6 Existing

KOP 6 Visual Sim

KOP 7 Existing

KOP 7 Visual Sim

KOP 8 Existing

KOP 8 Visual Sim

KOP 9 Existing

KOP 9 Visual Sim

KOP 10 Existing

KOP 10 Visual Sim



KOP 11 Existing

KOP 11 Visual Sim

KOP 12 Existing

KOP 12 Visual Sim

KOP 13 Existing



KOP 13 Visual Sim

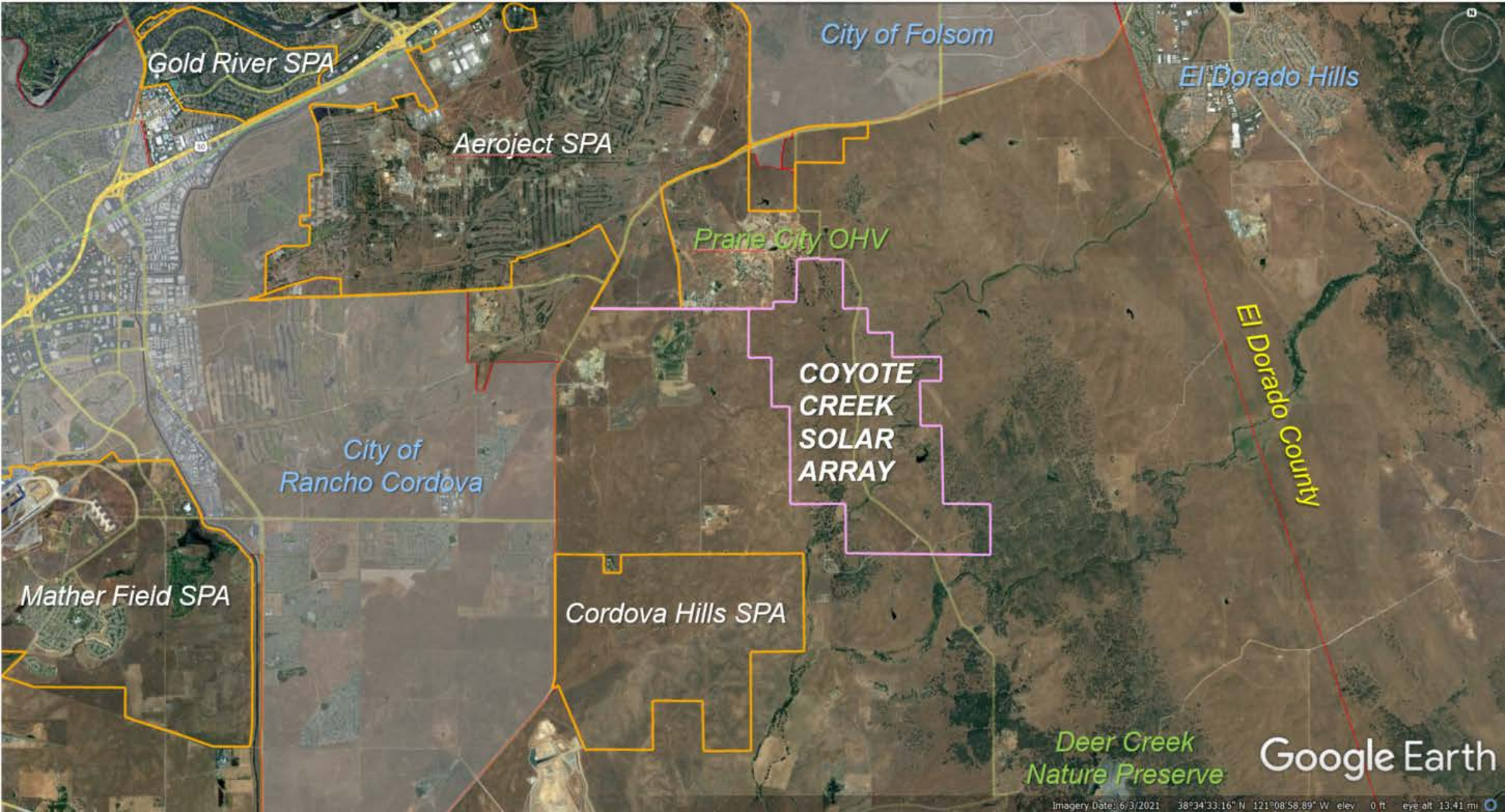


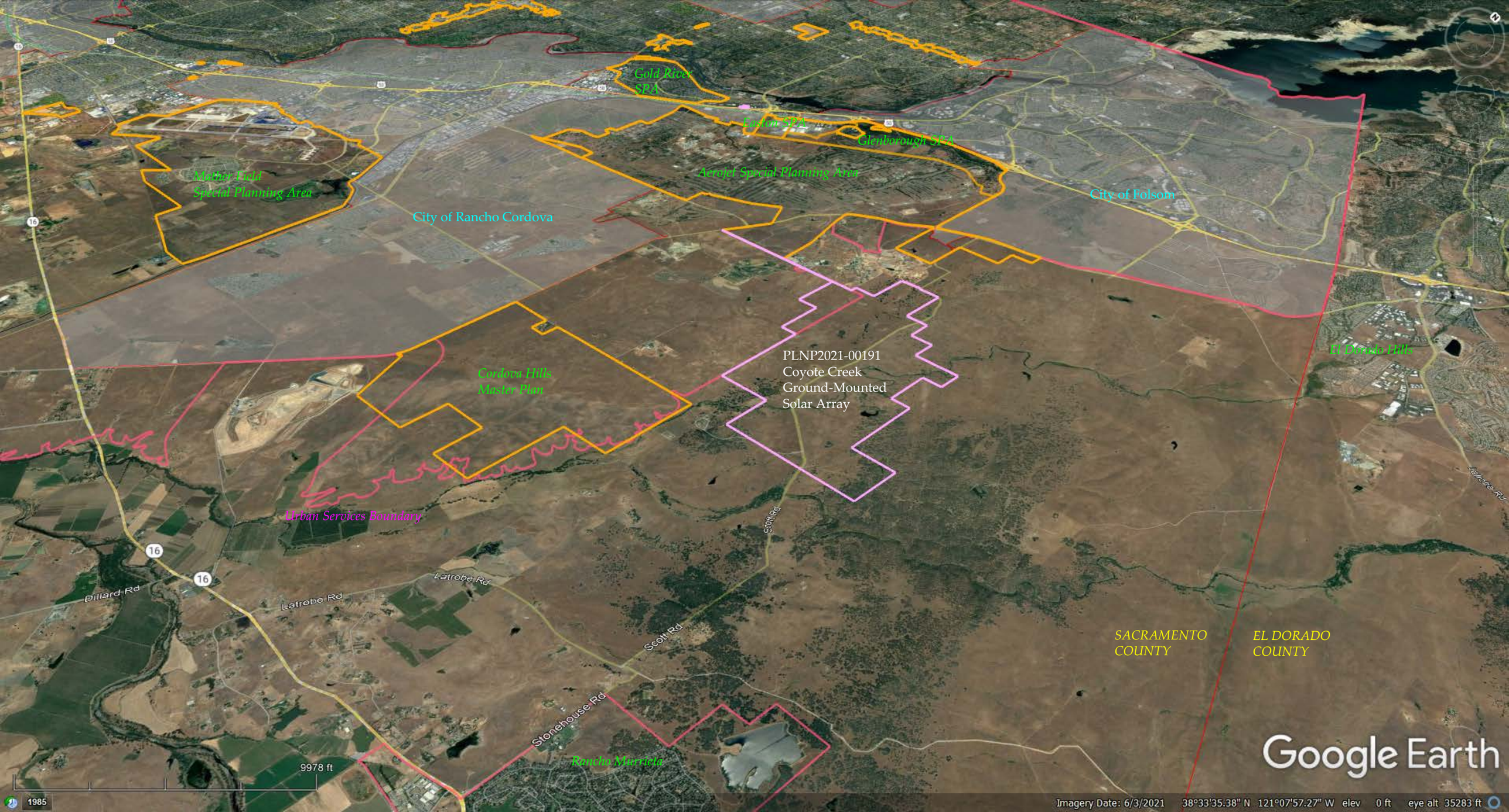
KOP 14 Existing

KOP 14 Visual Sim

KOP 15 Existing

KOP 15 Visual Sim


Gold River SPA
Aeroject SPA
City of Folsom
El Dorado Hills
Prarie City OHV
COYOTE
CREEK
SOLAR
ARRAY
El Dorado County
City of
Rancho Cordova
Mather Field SPA
Cordova Hills SPA
Deer Creek
Nature Preserve
Google Earth
Imagery Date: 6/3/2021 38°34'33.16" N 121°08'58.89" W elev 0 ft eye alt 13.41 mi


Gold River SPA
Easton SPA
Glenborough SPA
Aerojet Special Planning Area
Mather Field Special Planning Area
City of Rancho Cordova
City of Folsom
PLNP2021-00191
Coyote Creek
Ground-Mounted
Solar Array
Cordova Hills Master Plan
El Dorado Hills
Urban Services Boundary
Dillard Rd
Latrobe Rd
Scott Rd
Stonehouse Rd
Rancho Murrieta
SACRAMENTO COUNTY
EL DORADO COUNTY
9978 ft
Google Earth
1985
Imagery Date: 6/3/2021 38°33'35.38" N 121°07'57.27" W elev 0 ft eye alt 35283 ft

# Silicon Ranch's Aerojet Rockdyne Solar Farm in Arkansas

## 12-MW over 100-acres



Duke Energy's Monroe Solar Farm southwest of Charlotte

75-MW over 400-acres



# Canadian Solar's Crimson Solar in Riverside County

## 350-MW over 2500-acres

