2 PROJECT DESCRIPTION

INTRODUCTION

Sacramento Valley Energy Center, LLC (applicant) proposes to construct, operate, and ultimately decommission an approximately 200-megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy generating facility and associated 4-hour/100 MW AC battery energy storage system (BESS).

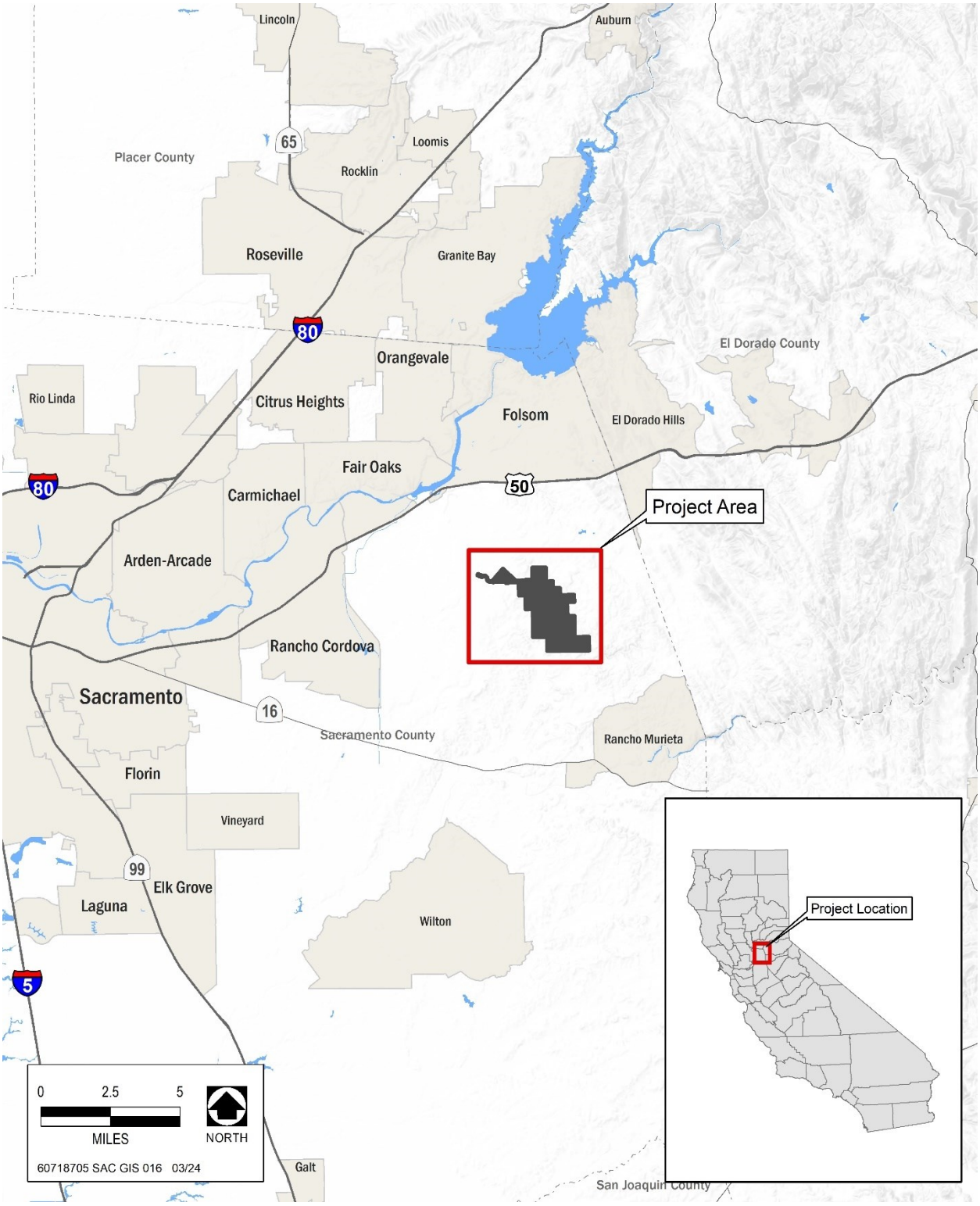
The Coyote Creek Agrivoltaic Ranch project (project) components include an on-site substation, inverters, solar array, fencing, roads, supervisory control, and data acquisition (SCADA) system, generation tie (gen-tie) line, and switchyard. The project's 230-kilovolt (kV) gen-tie line would be approximately 1.3 miles long and would parallel the boundary of the California State Parks Off-Highway Motor Vehicle Division's Prairie City State Vehicle Recreation Area (SVRA). The gen-tie line would connect with a new switchyard that would be constructed to interconnect into the Sacramento Municipal Utility District (SMUD) 230 kV powerline in proximity to the Prairie City SVRA. Following construction of the switchyard, SMUD would own and operate the switchyard facilities. Plate PD-1 shows the regional location of the project.

The project site comprises numerous parcels that total the approximately 2,704-acre project site in the Consumnes community of unincorporated Sacramento County. Of the approximately 2,704-acre project site, approximately 1,412 acres of this area would be developed to support the project and is collectively referred to as the "solar development area", which includes the proposed footprint of project construction activities and development, and the remaining approximately 1,292 acres are referred to as "adjacent other lands" and would not be developed as part of the project. "Adjacent other lands" are lands within the project site but located outside of the solar development area. The solar development area includes all locations used for temporary construction and all permanent project infrastructure. Areas denoted as adjacent other lands would be appropriately delineated with flagging and construction areas activities would be required to avoid adverse impacts within these areas. Table PD-1 summarizes the project site component terminology and acreage. Plate PD-2 shows the project site with the solar development areas and the adjacent other lands.

Table PD-1: Project Site Component Terminology

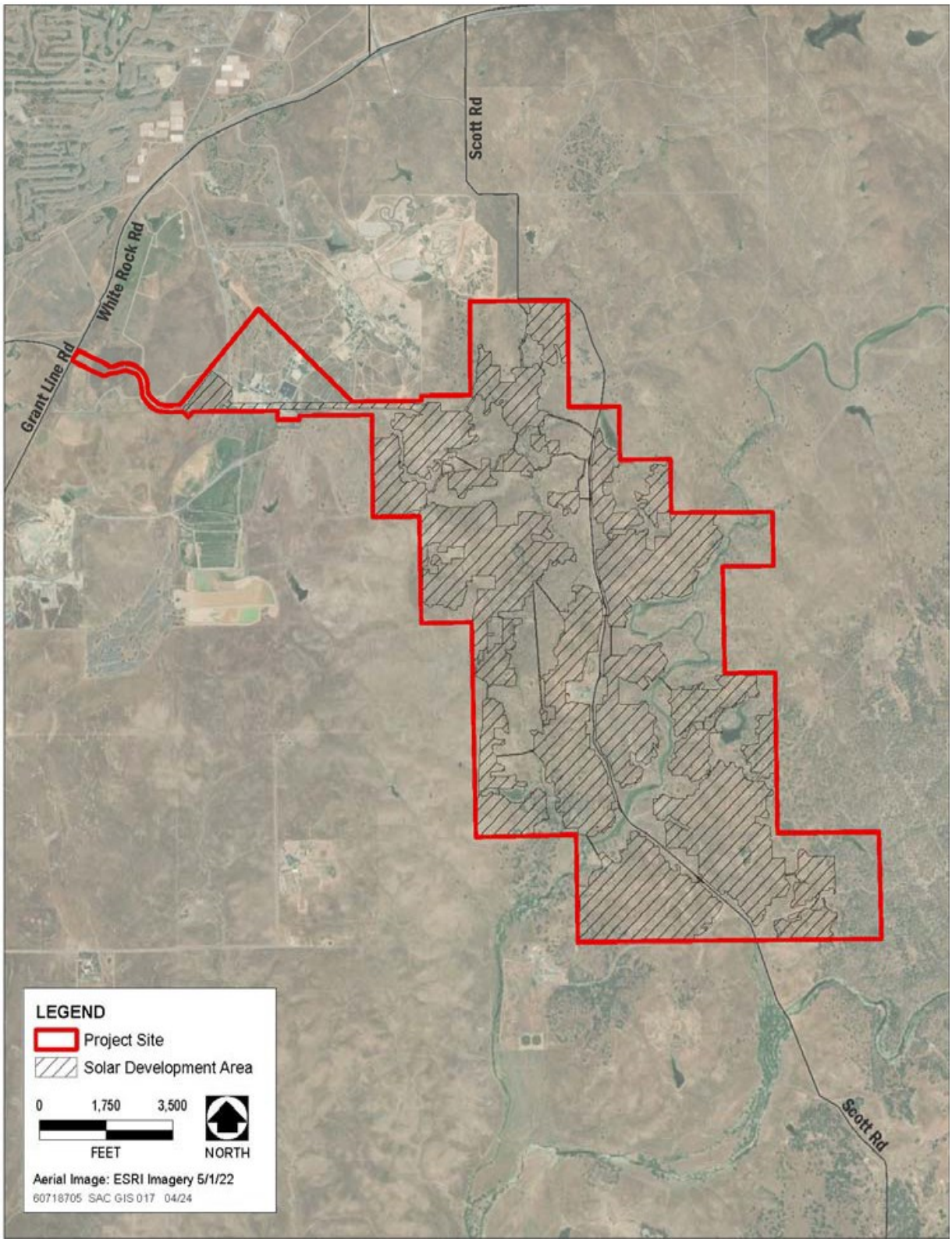
Project Site Component/ Terminology	Acreage	Description
Solar Development Area	1,412	All project site development would occur in this area. All temporary construction activities and all permanent project infrastructure would be in this area.
Adjacent Other Lands	1,292	No project development would occur in this area.
Total Area (Project Site)	2,704	The project site is the total area that comprises the solar development area plus the adjacent other lands.

Plate PD-1: Regional Location



Source: AECOM 2024

Plate PD-2: Project Setting



The project site includes what is known as the "Barton Ranch" near 3830 Scott Road in the Consumnes community of unincorporated Sacramento County. Barton Ranch is a large ranch that has historically been grazed with sheep and cattle. The proposed project would continue to support grazing activities within the project's fenced boundary following construction, and grazing and associated ranching activities would continue outside of the fenced boundary under the control of the landowner. These combined grazing activities would ensure grazing and ranching activities continue, so that that the use of the area continues as a large ranch under the Williamson Act. New troughs and fencing would 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 would be created. The project would incorporate solar energy generation, storage, and ancillary facilities and these solar energy generating facilities would operate within the solar development area concurrently with ranching activities.

Sacramento County (County) is the lead agency under the California Environmental Quality Act (CEQA) with primary responsibility for discretionary approvals of the proposed project, including a Use Permit. The County as the CEQA lead agency has prepared this Draft Environmental Impact Report (EIR) to comply with CEQA and the CEQA Guidelines.

PROJECT LOCATION

The project is generally located south of U.S. Route 50, northwest of Rancho Murieta, southeast of the Prairie City SVRA, and south of White Rock Road in the Cosumnes community (Plate PD-1). Specifically, it is located on what is known as the "Barton Ranch" near 3830 Scott Road. The geographic center of the project site is at 38.576278° North - 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 that runs through the Prairie City SVRA.

The project site is comprised of existing legal parcels, but the project site does not encompass the entirety of these existing parcels. As described above, the total area of the combined parcels that makes up the project site is approximately 2,704-acres and of this total area, approximately 1,412 acres within the solar development area would be developed and disturbed. Approximately 1,292 acres is other adjacent land that would not be developed as part of the project. Refer to Plate PD-2 for an illustration of the solar development area within the project site. In Plate PD-2, the hatched symbology indicates the areas that would be disturbed during construction and would contain permanent project infrastructure, and the areas that are not hatched within the project site indicates the "adjacent other lands" which would not be disturbed by the proposed project.

Table PD-2 provides the Assessor Parcel Numbers (APNs), zoning, and approximate acreages that comprise the solar development area.

Table PD-2: Assessors Parcels within the Solar Development Area

Assessor's Parcel Number	Total Approximate Acreage	Zoning
072-0100-016	0.15	M-2
072-0100-018	9.28	M-2
072-0100-027	3.60	M-2; SPA
072-0110-031	4.37	AG-80; M-2
072-0110-045	0.57	AG-80
072-0110-067	44.58	AG-80
072-0110-069	60.34	AG-80; M-2
072-0110-070	54.55	AG-80
072-0110-071	25.91	AG-80
072-0110-072	13.92	AG-80
072-0110-073	9.49	AG-80
072-0110-074	17.13	AG-80
072-0110-075	6.92	AG-80
072-0110-076	15.49	AG-80
072-0110-079	26.72	AG-80; M-2
072-3160-002	17.57	M-2; SPA
073-0020-015	0.69	AG-80
073-0020-018	27.46	AG-80
073-0020-032	0.17	AG-80
073-0020-034	76.06	AG-80
073-0020-035	20.18	AG-80
073-0020-036	30.63	AG-80
073-0020-037	11.70	AG-80
073-0020-039	45.11	AG-80
073-0020-040	19.89	AG-80
073-0020-041	34.73	AG-80
073-0020-042	40.23	AG-80
073-0020-043	28.77	AG-80
073-0020-044	26.02	AG-80
073-0020-045	40.04	AG-80
073-0020-046	0.25	AG-80
073-0020-048	0.33	AG-80

Assessor's Parcel Number	Total Approximate Acreage	Zoning
073-0020-049	21.01	AG-80
073-0020-050	37.87	AG-80
073-0020-051	45.12	AG-80
073-0020-052	54.62	AG-80
073-0020-053	28.06	AG-80
073-0020-054	67.28	AG-80
073-0020-056	19.97	AG-80
073-0020-057	36.31	AG-80
073-0020-058	46.02	AG-80
073-0020-059	79.85	A-2; AG-80
073-0020-060	25.84	AG-80
073-0020-061	31.46	AG-80
073-0020-062	0.89	AG-80
073-0020-063	9.96	AG-80
073-0020-064	24.43	AG-80
073-0020-065	12.39	AG-80
073-0020-066	24.18	AG-80
073-0020-067	12.61	AG-80
073-0020-068	6.26	AG-80
073-0020-069	15.67	AG-80
073-0020-070	15.77	AG-80
073-0020-071	17.32	AG-80
073-0020-072	10.27	AG-80
073-0020-073	2.45	AG-80
073-0020-074	29.31	AG-80
073-0020-075	3.30	AG-80
073-0020-076	1.47	AG-80
073-0020-077	18.65	AG-80
073-0050-050	0.20	AG-80
No Designation	0.97	AG-80; No Designation
Total Approximate Acreage	**1,412.36**	**-**

Source: Dudek 2024
Notes: AG-80= Agricultural- 80 Acres; M-2= Heavy Industrial; SPA= Special Planning Area.
** Parcel boundaries will be verified upon completion of final land title survey prior to construction.

ENVIRONMENTAL SETTING

The proposed project site is situated along Scott Road within the Barton Ranch property in southeastern Sacramento County. The topography generally consists of rolling hills with gentle slopes. Elevations range from 150 to 350 feet above sea level. The majority of the project site is open grassland that has historically been used for grazing. Seasonal wetlands, vernal pools, and ephemeral drainages are scattered throughout the project site.

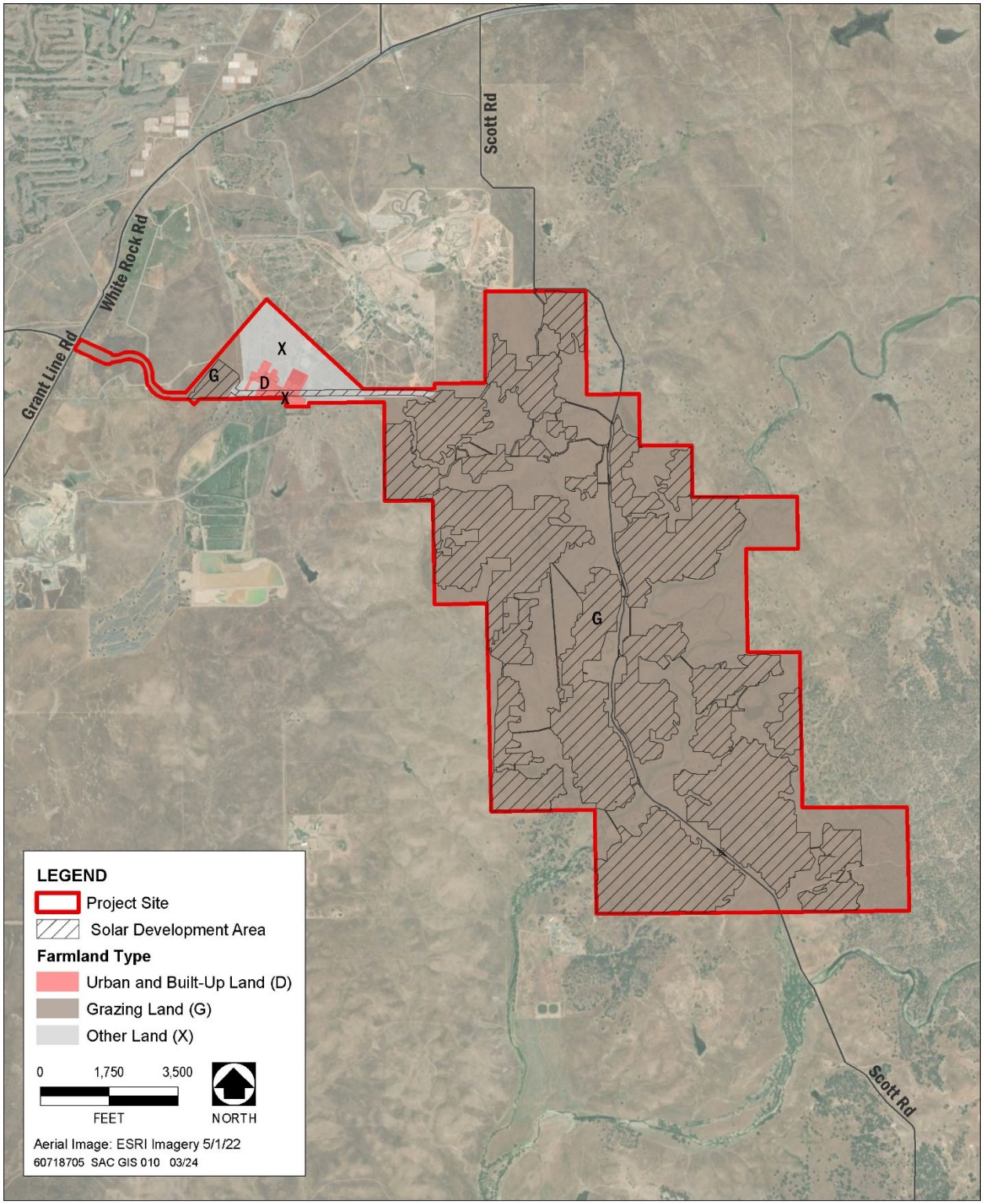
The project site is designated General Agricultural (80 acres) (GA-80) by the Sacramento County General Plan Land Use Element (County of Sacramento 2020) and the project site parcels are predominantly zoned AG-80 (County of Sacramento 2018). The parcels that the 1.3 miles of gen-tie lines would be installed on are zoned M-2 and SPA-Aerojet (County of Sacramento 2018). Solar development facilities are an allowable use with the GA-80 General Plan designation and the AG-80 zoning designation. As shown on Plate PD-3, a majority of the project site is as grazing land, but the proposed project site includes smaller areas of other land and urban and built-up land. The project would be sited on grazing lands, except for the gen-tie corridor, which would be on urban and built-up land and other land.

The predominant vegetation communities and land cover types in the solar development area include valley and foothill grasslands (over 1,000 acres of the 1,412-acre solar development area) and oak forests and oak woodlands (specifically concentrated in the south and eastern portions of the project site). Plate PD-4 identifies vegetation communities, land cover types, and aquatic resources present within the solar development area and project site. Within the solar development area, there are several aquatic features including three creeks and their associated tributaries (Coyote Creek, Carson Creek, and Little Deer Creek).

The project site is currently used for cattle grazing and has historically been used for sheep and cattle 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 cover are areas larger than the project site. The Williamson Act contracts in place allow for “gas, electric, water and communication utility facilities.” Additionally, the Williamson Act contracts allow for solar PV facilities and battery energy storage in conjunction with agricultural activities, and thus, the project is an allowable use under the current Williamson Act contracts.

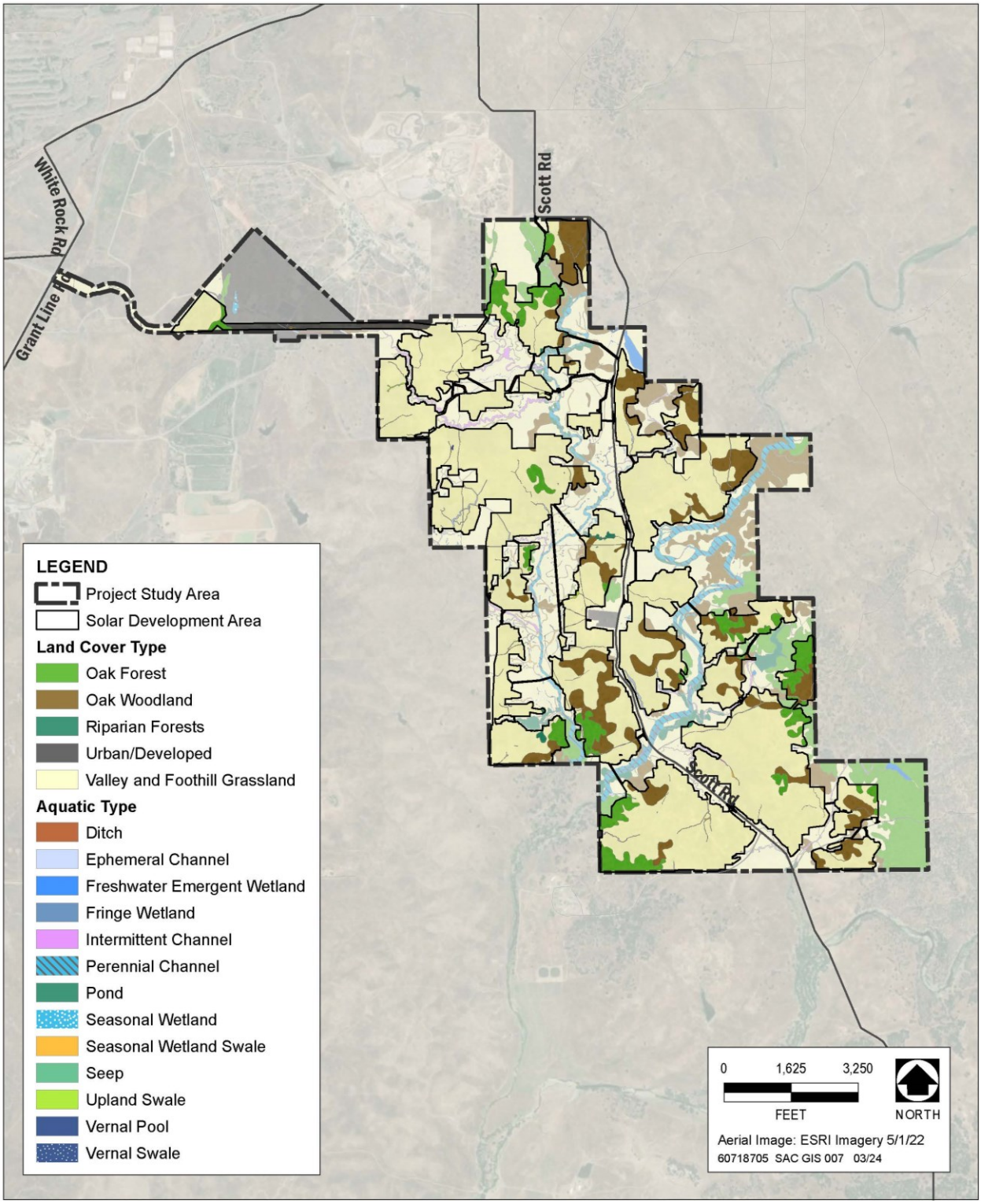
Land uses in the vicinity of the project site include grazing, mining, industrial lands, and the Prairie City SVRA.

Plate PD-3: Agriculture and Farmland



Sources: DOC FMMP 2020, Adapted by AECOM 2024

Plate PD-4: Vegetation and Land Cover Types within the Solar Development Area and Project Site



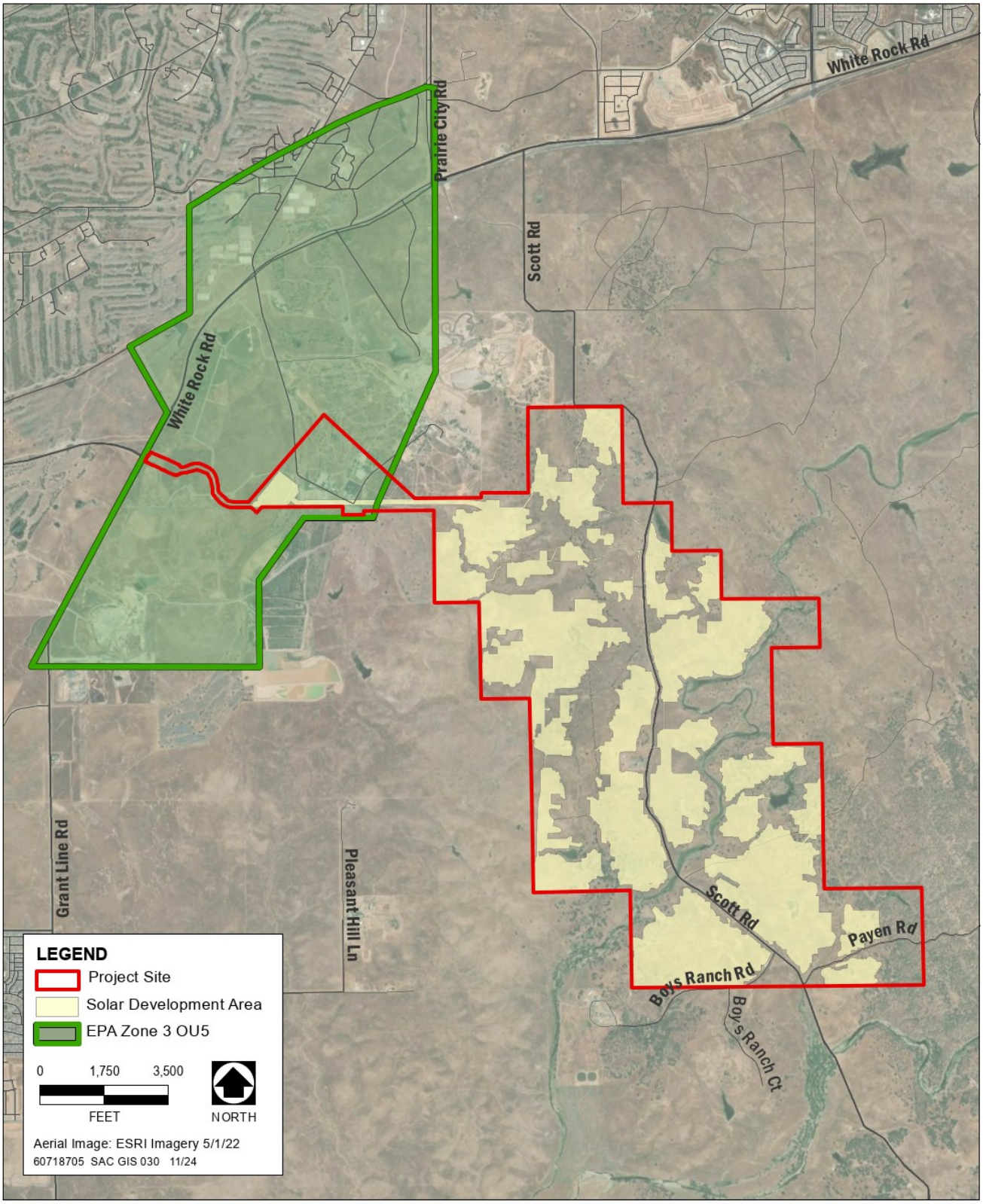
Sources: Appendix BR-1, Dudek 2024

The western one-third of the proposed switchyard, and the project site access road that is proposed from Grant Line Road to the switchyard, are within the Aerojet Special Planning Area (Perimeter Groundwater Operating Unit 5) which is within an area that Aerojet is performing groundwater remediation. There are numerous Aerojet groundwater extraction and treatment wells and groundwater monitoring wells within and near the project site (Dudek 2024a). The remediation activities are monitored by the Department of Toxic Substances Control, Regional Water Quality Control Board, and U.S. Environmental Protection Agency. Coordination with these agencies is ongoing to ensure that there is no conflict with the ongoing monitoring and mitigation activities. The boundary of the Aerojet contaminated groundwater plume in the project area is shown on Plate PD-5.

PROJECT BACKGROUND

The project is proposed by the applicant to generate and sell solar-generated electricity to SMUD. The applicant has entered into an agreement to supply SMUD with the renewable energy generated by the project for use in the SMUD service area, subject to compliance with environmental review requirements, permitting, and applicable conditions and mitigation measures. The project would assist SMUD in achieving SMUD's Renewable Portfolio Standard (RPS) goals for renewable energy, and carbon reduction targets, including SMUD's 2030 Zero Carbon Plan. SMUD adopted the 2030 Zero Carbon Plan to achieve net zero carbon emissions from SMUD's power supply by 2030. The energy storage elements of the project would help balance supply and demand by capturing and storing renewable energy generated during daylight hours to meet peak evening demand.

Plate PD-5: Aerojet Superfund Site and Operable Units within the Project Site



Sources: Dudek 2023, EPA 2021

PROJECT OBJECTIVES

Per Section 15124(b) of the CEQA Guidelines, the project description shall include:

> A statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits.

The project applicant has provided the following statement of basic project objectives consistent with CEQA Guidelines Section 15124 (b):

- Provide a local supply of solar energy for the Sacramento County region to implement the County of Sacramento General Plan policies applicable to renewable energy.
- Provide cost-effective delivery of local utility-scale solar energy to support attainment of SMUD 2030 Zero Net Carbon Plan targets and Integrated Resource Plan targets.
- Support the SMUD region in attainment of state 2030 Renewable Portfolio Standards.
- Comply with SMUD Integrated Resource Plan siting and size criteria for local utility-scale solar facilities.
- Optimize use of existing electrical transmission and other infrastructure with existing capacity to minimize environmental impacts of new construction.
- Provide local employment and training opportunities for a variety of building trades.

PROPOSED PROJECT

The proposed project consists of an approximately 200-MW solar energy generating facility with an energy storage component with an approximate capacity of 400 megawatt hours. The energy generation process starts with PV cells that make up PV modules, which are environmentally sealed [1] collections of PV cells that are generally non-reflective. Groups of PV modules are wired together to form an array. The direct current (DC) produced by an array is collected at an inverter (a power conversion device) where

[1] An environmental seal, usually composed of rubber, acts as a barrier between the power supply and its environment. Environmental sealing helps prevent contaminants from breaching the power supply. The seal maintains the equipment's electrical performs and is necessary for effective, safe equipment operation in many settings.

the DC is converted to AC. The voltage of the electricity is then increased by a transformer at each power conversion device to a medium-voltage level (typically 34.5 kV). Medium-voltage electric lines located underground and/or overhead collect the electricity from each medium-voltage transformer and transmit it to an on-site substation facility, where the voltage is further increased by a high-voltage transformer to match the voltage level in the regional electric grid.

In addition to the proposed project facilities described below, the project would include the installation of disconnect switches, fuses, circuit breakers, and other miscellaneous equipment throughout the site for electrical protection and operations and maintenance purposes.

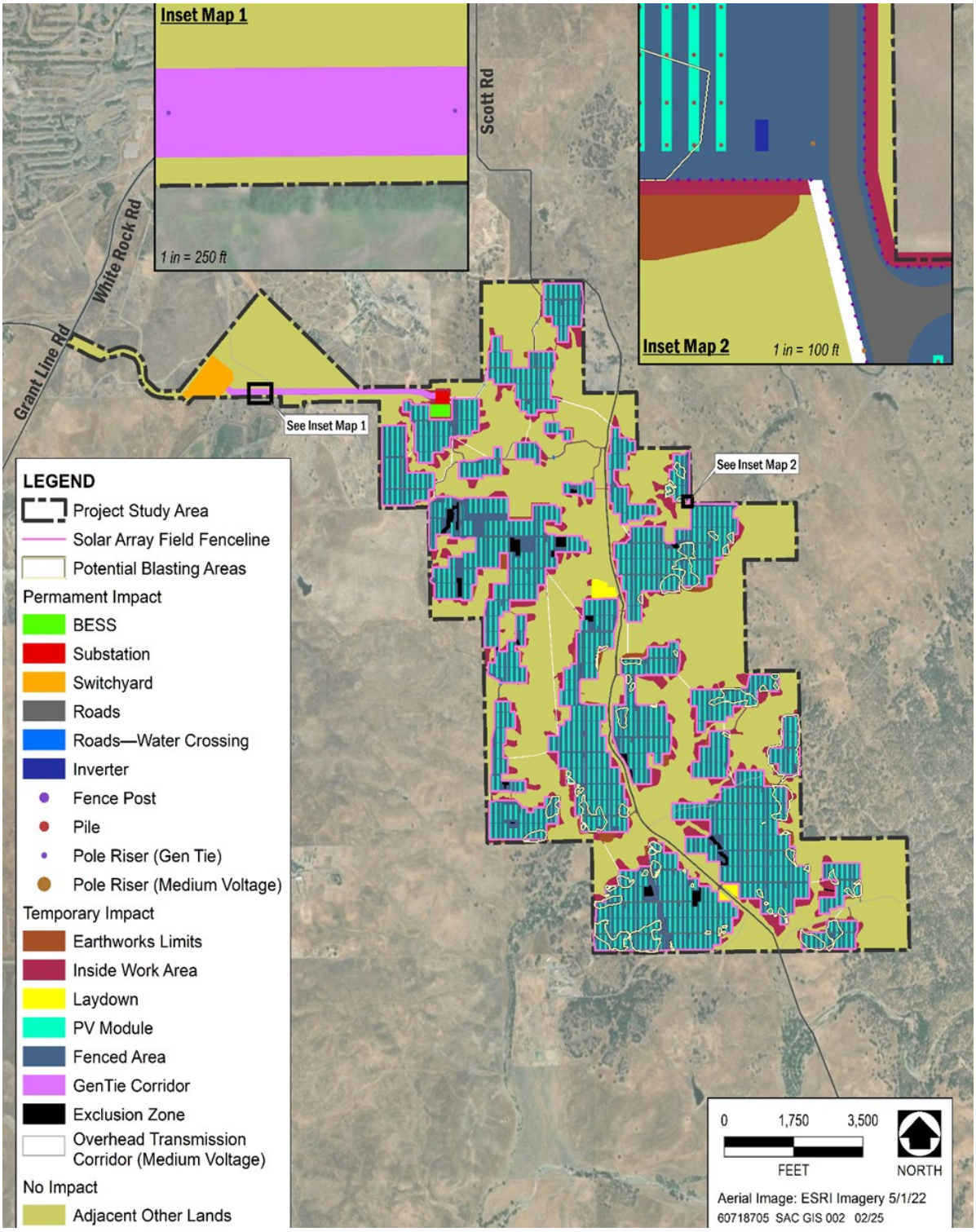
The County requires that the design and construction of the solar arrays, energy storage facilities, and auxiliary facilities (e.g., substation) are consistent with all applicable County building standards. The total acreage within and including the fence line of the project comprises the solar development area of the project site. Table PD-3 breaks down the component acreage of the project's solar development area. Plate PD-6 shows the proposed project site plan.

Table PD-3: Proposed Components of the Solar Development Area and Associated Acreage

Project Component	Acreage
BESS	3.72
Earthworks Limits	39.63
Exclusion Zone[1]	16.69
Fence Post	0.29
Fenced Area	726.32
Gen-Tie Corridor	18.25
Inside Work Area	186.76
Inverter	0.23
Laydown	8.19
Overhead Transmission Corridor (Medium Voltage)	10.68
Pile	2.21
Pole Riser (Gen-Tie)	0.02
Pole Riser (Medium Voltage)	0.03
PV Module	341.95
Roads	37.27
Substation	2.40
Switchyard	17.21
Water Crossing	0.41
TOTAL	**1,412[2]**

Source: Dudek 2023
BESS = Battery Energy Storage System
Gen-tie = generation tie
PV = Photovoltaic
[1] Exclusion zone includes avoidance areas that complete avoidance will be applied within the solar development area
[2] Rounded to the nearest whole number

Plate PD-6: Proposed Project Site Plan



Source: ESRI 2023, Dudek 2023

PROPOSED PROJECT FACILITIES

The project would use PV technology to convert sunlight directly to electricity. The PV arrays would be mounted on fixed-tilt or tracker structures. The proposed project would transport energy from the on-site substation to SMUD's 230-kV powerlines, as shown on Plate PD-4. In addition to generation of energy, the project would incorporate battery storage, further described below.

The subsections below describe the proposed project components in more detail.

SOLAR ENERGY GENERATION SYSTEM

The proposed project would generate approximately 200 MW AC of solar power. Approximately 726 acres within the 1,412-acre solar development area would be fenced and would include various components, including solar panels, single axis tracking support structures, inverters, transformers, SCADA systems, and interconnection facilities (located at the on-site substation). The project's footprint (the "solar development area") is illustrated in Plate PD-6.

Depending on the selected manufacturer for the PV modules, the modules would be mounted on fixed-tilt, single- or dual-axis tracking structures. The PV modules would be grouped in 1 to 4 MW AC arrays. Fixed-tilt arrays would be oriented in east-west rows and would face in a generally southern orientation with a tilt angle of 10 to 40 degrees to maximize the amount of solar radiation absorbed over the year. Single-axis trackers typically rotate ±60 degrees (0 degrees is horizontal) along a north/south axis to track the sun's movement throughout the day. Structural support elements, made of corrosion-resistant steel, aluminum, or equivalent materials, would be attached to circular piers or I-beam posts that would be direct-driven into the prepared base grade of the site.

Solar racking systems are structures that securely hold and position solar panels; the racking systems 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 of 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 PV array, a power conversion station would be installed to take the DC power output and convert it to AC power through inverter facilities. The adjacent pad-mounted transformer would step the voltage up to a medium-voltage level. The inverter stations are typically open-air and approximately 12 feet in height. The medium-voltage outputs from each of the pad-mounted transformers are collected in combining switchgear located at discrete locations on the project site. The output power from the inverter stations is then fed to the AC collection system through an aboveground or belowground collection system. This AC collection system would deliver the electricity to the 230-kV on-site substation, where the voltage would be stepped up through a transformer to the

interconnection voltage. Typical inverter stations are shown in Photo PD, these facilities would be installed upon a concrete mat foundation.

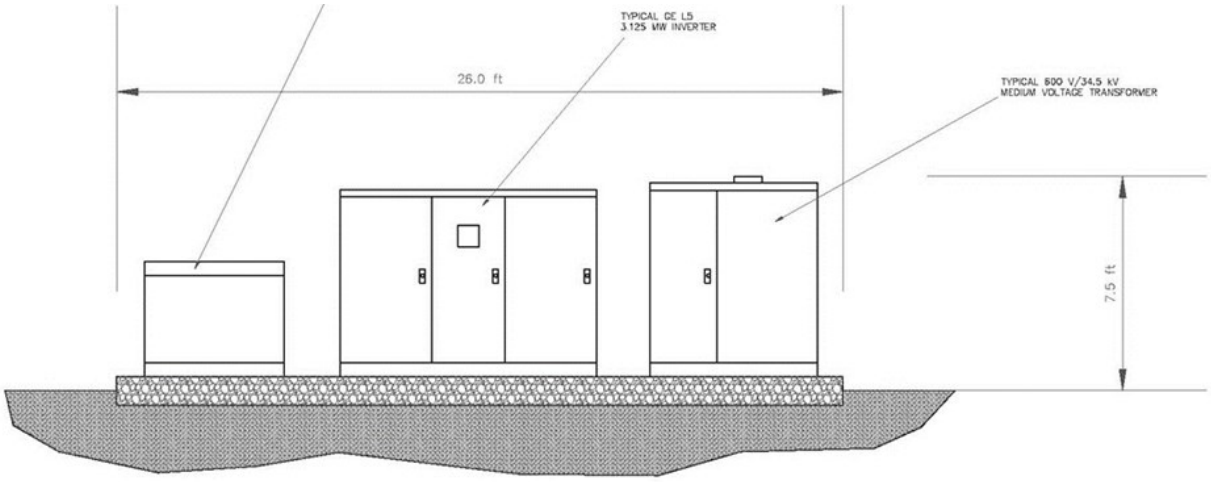


Photo PD-1: Diagram of Typical Inverter Station

On-Site Substation

The on-site substation would be constructed in the northwest portion of the project site, as shown on Plate PD-6. The project's on-site substation would be the termination point of the collection system for 34.5-kV electricity. The substation transformer would step-up the voltage from the collection-level voltage to 230 kV. The communication system may include aboveground or belowground fiber-optic cable or microwave tower within the substation's fenced boundary. The project would be interconnected to the regional transmission system from the on-site substation/switchyard via the 1.3-mile gen-tie line facilities described in this project description. A conceptual substation is shown in Photo PD-2.

Additionally, the project's on-site substation would host the grid intertie safety equipment and switches required to interconnect to the high-voltage transmission system. The project's 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. The substation facilities would be enclosed with secured fencing and include security lighting.

A SMUD distribution line feeding electricity to the Barton Ranch extends across two solar array blocks. Portions of the distribution line that conflict with the solar array would be rerouted underground to align with solar array racking and pilings. This relocation would be within areas already disturbed by project activities, within the solar development area.

Photo PD-2: Proposed Project Conceptual 230 kV Substation.

Battery Energy Storage System

The project would include a centralized BESS that would be constructed adjacent to the project substation to help meet peak demand even when there is reduced array production (e.g., on cloudy days or at nighttime). The approximate area of the BESS facilities would be approximately 3.72 acres. The BESS is proposed to provide a capacity of approximately 400 megawatt hours in small modular structures similar in appearance to cargo shipping containers (see Photo PD-3). The maximum height of the modular system would be approximately 25 feet. The associated inverters, transformers, and switchgear would be immediately adjacent to the BESS facilities on an outdoor concrete pad. The project may store energy generated by the project and energy from the grid. It is anticipated that the centralized BESS would provide the best solution for the project, but changing technology may allow for BESS facilities to be distributed at the inverters in the future.

The BESS equipment would have a fire rating in conformance with local fire authority and County standards. The BESS facilities would have heating, ventilation, and air conditioning (HVAC) to maintain battery efficiency. Power to the HVAC system and lighting, among others, would be provided through a connection to the on-site station service transformer. The BESS would be un-staffed and have remote operational control. Periodic inspections/maintenance would be performed, as necessary.

Photo PD-3: Examples of Battery Storage Containers

The BESS would be designed to comply with the National Fire Protection Association (NFPA) 855 guideline, "Standards for the Installation of Stationary Energy Storage Systems". Additional BESS-related safety standards and regulations will be required for the project and would include complying with Senate Bill 38, additional NFPA guidelines (such as NFPA 68 and 69), Underwriters Laboratory Solution 9540A, and utilizing other advanced technology components in the BESS design. Refer to Chapter 9, "Hazards and Hazardous Materials" for additional information regarding BESS safety standards. The BESS would be monitored through the Emergency Management System and Battery Management System. If the Battery Management System detects abnormalities outside of safe operating parameters of voltage, state of charge, state of health, or temperature, it will shut down the unit and/or block and alert the operator. If a user identifies a risk, a unit, block, or full system can be shut down remotely. There are also manual shutoffs on-site in case of emergency.

Generation Tie Line and SMUD Switchyard

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 would extend approximately 1.3 miles from the facility's on-site substation to the western terminus of the gen-tie line where it would interconnect into SMUD facilities (see Plate PD-2 and Plate PD-6). 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 gen-tie line would use existing dirt and paved access roads where available, but improvements, such as widening or clearing existing dirt roads, and new road sections may be required for construction. These areas would be restored after construction is completed. A lower-voltage powerline and communications line would share the same structures or share the same easement to provide power and communications to the project site.

A new 230-kV switchyard approximately 600 feet by 600 feet would be constructed at the point of interconnection with SMUD's existing 230-kV powerline. The new switchyard would be owned and operated by SMUD following construction and may include restroom facilities for workers completing maintenance activities. Additionally, an infiltration basin would be constructed in the switchyard to control stormwater run-off. The area for the switchyard and interconnection improvements would be constructed within an easement over Prairie City SVRA property.

The switchyard would be designed to avoid or relocate existing groundwater monitoring wells. The switchyard would be in 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 U.S. Environmental Protection Agency. Coordination with these agencies is ongoing to ensure that there is no conflict with the ongoing monitoring and mitigation activities.

Prairie City State Recreational Vehicle Area

The applicant has coordinated with the Prairie City Off-Highway Vehicle Park to modify kart-track facilities to better accommodate the construction of the proposed project gen-tie line. Changes were necessary to accommodate the placement of a gen-tie pole via moving bleachers and non-permanent garage-pit area as well as the Track's office. Other improvements are not necessary for gen-tie construction and operation, but are a commitment by the applicant to improve the user experience for go-kart track users beyond what is required for the gen-tie line. The track modifications are anticipated to occur during the 18-month construction window, but ultimately would be completed at the timing and discretion of California State Parks. Temporary closures of the track are anticipated to be necessary to accommodate construction of the gen-tie, and would be coordinated with park officials, as necessary. The improvements would involve the movement of temporary infrastructure such as bleachers, relocation of the track office, removal of approximately 276 feet of existing track and addition of approximately 403 feet of new track. The onsite canopy/structure and office/retail modular units associated with the track would be moved from its current location approximately 100 feet north. Limited paving around these structures in previously disturbed locations may be necessary to ensure adequate accessibility to these structures. The improvements are entirely contained within the area currently fenced for the kart track or in the adjacent parking lot. Track improvements would be carried out at the discretion of state parks, and state parks would be responsible for any additional surveys, permits, or permissions associated with the improvements.

Ancillary Facilities

Access Roads

Primary access to the project site would be from Scott Road. Access to components of the solar facility would be controlled through entrances with security gates during construction and operations. The project access roads would be approximately 20 feet wide and would be unpaved with an aggregate base. The internal roadways would comprise approximately 37 acres of the 1,412-acre project's solar development area

(under 3 percent of the total solar development area). The internal roadway construction activities would include 0.19 acres of new permanent water crossings and 0.41 acres of temporary impacts related to water crossings).

PERIMETER FENCE

An approximately seven-foot-tall agricultural-style woven wire fence would be installed to enclose the solar arrays and supporting facilities. Barbed wire would be used for security purposes in select areas such as the substation, switchyard, and BESS, which are anticipated to have chain-link fencing with barbed wire or an equivalent. As discussed above, access into the project site would be provided through controlled access drive-through gates to prevent unauthorized access to the site. The total height, above grade, of the fence would be approximately seven feet and would be installed around each solar array, BESS facilities, and substation. The fence would be monitored periodically to detect any intrusion or defects.

EXCLUSION ZONES

As depicted in Plate PD-6, the project site would include areas indicated as “exclusion zones”. Exclusions zones are areas within ‘perimeter fence’ and ‘inside work areas’ where no direct permanent construction activities would occur. These exclusion zones would be clearly delineated using temporary exclusion fencing during construction to avoid potential permanent impacts. Following conclusion of construction, temporary fencing would be removed so that grazing of these areas can continue as it had prior to construction activities commencing. As no solar components are sited in these areas, disturbance to these locations during operations is not anticipated.

SECURITY SIGNAGE AND LIGHTING

As discussed above, the project would construct a fence surrounding the perimeter of the proposed facilities. Security lighting would be installed as needed, and signs would be posted on all gates and doors at regular intervals. Signs would be placed at 75-foot intervals along roadways and approximately 500-foot intervals if there are no nearby roads providing access, to provide warning of the high-voltage facilities. Access to the site would be controlled and gates would be installed at each entrance to the property.

Security lighting would be installed at primary access gates, the on-site substation, and at the entrances to the BESS facilities to provide operation and maintenance personnel with illumination in both normal and emergency conditions. Lighting would be designed to provide the minimum illumination needed to achieve safety and security objectives and would be shielded and oriented to focus illumination on the desired areas, minimizing light spillover. Lights would be motion activated, shielded, and pointed downwards.

ELECTRICAL SERVICE

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

COMMUNICATION SYSTEMS

For communication facilities, the project would utilize telephone and internet services provided via overhead or underground lines, microwave tower, or via cellular service obtained from a local provider. The communication system may include above or below ground fiber optic cable. The SCADA system would be implemented to remotely monitor the project 24 hours per day, 7 days per week during operations to ensure safe and efficient operations.

LANDSCAPING

Landscaping would be installed and maintained along Scott Road. A mix of native plantings would be installed, including live oak thickets and hedgerows planted along Scott Road to soften, rather than fully screen, the views of the project. This landscaping would consist of very low water use plants such as western redbud, interior live oak, manzanita, buckbrush, California coffeeberry, and an annual grass and wildflower mix. Installed landscaping would receive supplementary drip irrigation, typically for the first five years to ensure establishment and facilitate growth. The faster-growing interior live oak species have been selected to provide softening after five years. Landscaping would be installed according to the Preliminary Landscape Plan (Appendix AE-1).

FIRE CONTROL

The PV modules and ancillary equipment would be constructed of fire-resistant material. The project would be designed to comply with all applicable California Fire Code requirements, California Building Code requirements, and SB 38 requirements and the applicant would be required to engage with local fire and emergency management officials to ensure compliance. During the dry season, grasses within the facility would be kept at a height of six inches or less to reduce wildfire risk. This is anticipated to be accomplished via grazing, although supplemental mowing would be completed on an as-needed basis to ensure fire risk is mitigated. Lock boxes would be placed at all gated entrances to always allow access to emergency services.

The operation of the BESS includes a risk of a thermal runaway event (fire) resulting in air emissions including releases of flammable gases and hazardous pollutants. The equipment selection, site design, and operation of the BESS are subject to state and national fire prevention regulations standards to prevent the risks of thermal runaway events. The current required safety approach includes site-specific emergency response plans, hazard mitigation analysis, and first responder training to minimize risks to first responders and the public. The BESS system for the proposed project would be monitored and managed 24 hours per day and 7 days a week by the Battery Management Systems (BMS) software to automatically report to a remote operator to prevent conditions that can lead to a fire. The BMS would monitor abnormalities outside of safe operating parameters of voltage, state of charge, and state of health or temperature, and it would shut down the unit (segregated battery containers) and/or block of units and alert the operator should any abnormal parameters be identified. The BESS would also have secondary manual controls on-site. Fire alarm control panels with dedicated back up power would be installed and evaluated to ensure they are placed at a safe distance from the BESS units in order to provide real time critical information to first responders. Refer

to Chapter 9, “Hazards and Hazardous Materials” for additional information regarding BESS safety standards.

WATER SUPPLY

A Water Supply Assessment (WSA) has been completed for the proposed project in compliance with Senate Bill 610. The WSA evaluates potential impacts of construction, operations, and decommissioning on the water table (Appendix HYD-1, Water Supply Assessment and Verification) and for consistency with the Groundwater Sustainability Plan.

The project proposes to meet the project’s demands for construction and decommissioning (253 AF each) from groundwater obtained from Sloughhouse Solar Project wells or the Sacramento County Water Agency (SCWA), or a combination of the two sources (Dudek 2024b, Dudek 2024c, and SWCA 2024).

CONSTRUCTION

Construction is planned to occur in multiple phases over approximately 18 months. As described in Table PD-4, construction would include site preparation and installation of best management practice measures, perimeter fence installation, site preparation and clearing/grading, tree removal, underground work (trenching), system installation, gen-tie line installation, energy storage system, switchyard, and collector substation, testing and commissioning, and site cleanup and restoration. These activities would overlap in certain phases, and all are expected to occur within the estimated 18-month construction duration.

Typical construction work hours are expected to be from 6:00 am to 4:00 pm, Monday through Friday. Overtime and weekend work would be used only as necessary to meet schedule milestones or to accelerate the schedule and would be required to comply with all applicable California labor laws and applicable County rules. Occasional nighttime work may be required based on overall construction timing or worker safety such as avoidance of excessive midday heat. Work at night may be performed occasionally within limited areas of the site.

Daily trip generation during project construction would be from delivery of equipment and supplies and the commuting of the construction workforce. The number of workers expected on-site during construction of the project would vary over the construction period and would average approximately 250 workers per day. Deliveries of equipment and supplies to the site would also vary over the construction period but would range from 5 to 40 round trips, averaging approximately 10 round trips during the construction period. On-site parking for worker vehicles would be provided during construction. The parking lot would move to adjacent areas as new phases are constructed.

Primary construction activities and durations are presented below, in Table PD-4.

A Spill Containment and Countermeasures Plan for the site would be prepared to cover spill prevention and countermeasures for handling materials during construction.

Procedures to decrease the potential for release of contaminants to the environment and contact with stormwater would be specified in a decommissioning Stormwater Pollution Prevention Plan (SWPPP). Prior to site preparation, best management practices would be implemented to ensure adequate soil stabilization measures and off-site sedimentation are avoided prior to significant earth-disturbing activities.

This would include measures such as silt fence installation, installation of avoidance fencing for sensitive areas and exclusion zones, implementation of rock pads at public road entrances and exits, and more.

Table PD-4: Proposed Project Construction Duration and Workers by Construction Activity

Construction Activity	Construction Duration	Daily Construction Workers
Perimeter fence installation	3 months	
Site preparation and clearing/grading, including potential blasting activities	10 months	
Tree removal	3 months	
Underground work (trenching)	5 months	Maximum = 476
System installation	10 months	Average = 250
Gen-tie installation	1 month	
Energy storage system, switchyard, and collector substation	11 months	
Testing and commissioning	3 months	
Site cleanup and restoration	3 months	

Note:
Gen-tie = generation tie

Tree Removal

Site preparation would include the clearing of trees, removal of root balls, and backfilling of holes to accommodate solar construction. Merchantable timber would be hauled off site for local use, and the remainder would be chipped on site and temporarily stockpiled to assist in site stabilization and revegetation efforts later in the construction sequence.

A total of approximately 4,787 trees would be removed from the solar development area to accommodate the solar generating facility and ancillary structures (Dudek 2024). Of these 4,787 trees that are planned to be removed, 4,394 trees are subject to the Sacramento County Tree Preservation Ordinance. This inventory equates to 54.61 acres of tree canopy of with oak woodlands, forest, and riparian areas within the solar development area (Dudek 2024).

Blasting

Rock blasting is the controlled use of explosives to excavate, break down, or remove rock in areas within the solar development area to be graded. In some locations, blasting may

be required in areas where underlying soil conditions require blasting of granitic materials to establish foundations and final graded elevation. The result of rock blasting is often known as a rock cut.

The most commonly used explosives today are ammonium nitrate/fuel oil (ANFO)–based blends due to their lower cost compared to dynamite. Construction of the project would include up to one blast per day using ANFO for a total of 35 blasts. Each proposed blasting event would be no more than approximately 8 tons of charge detonated in multiple instantaneous blasts of no more than 2.8 kilograms (kg) charges spread out over a maximum 30-minute duration in total on any given day. Each blast would displace between 10,000 and 12,000 cubic yards of soil. The average depth per blast is 12 feet and the total cubic yards of soil blasted is estimated to be 320,000 cubic yards.

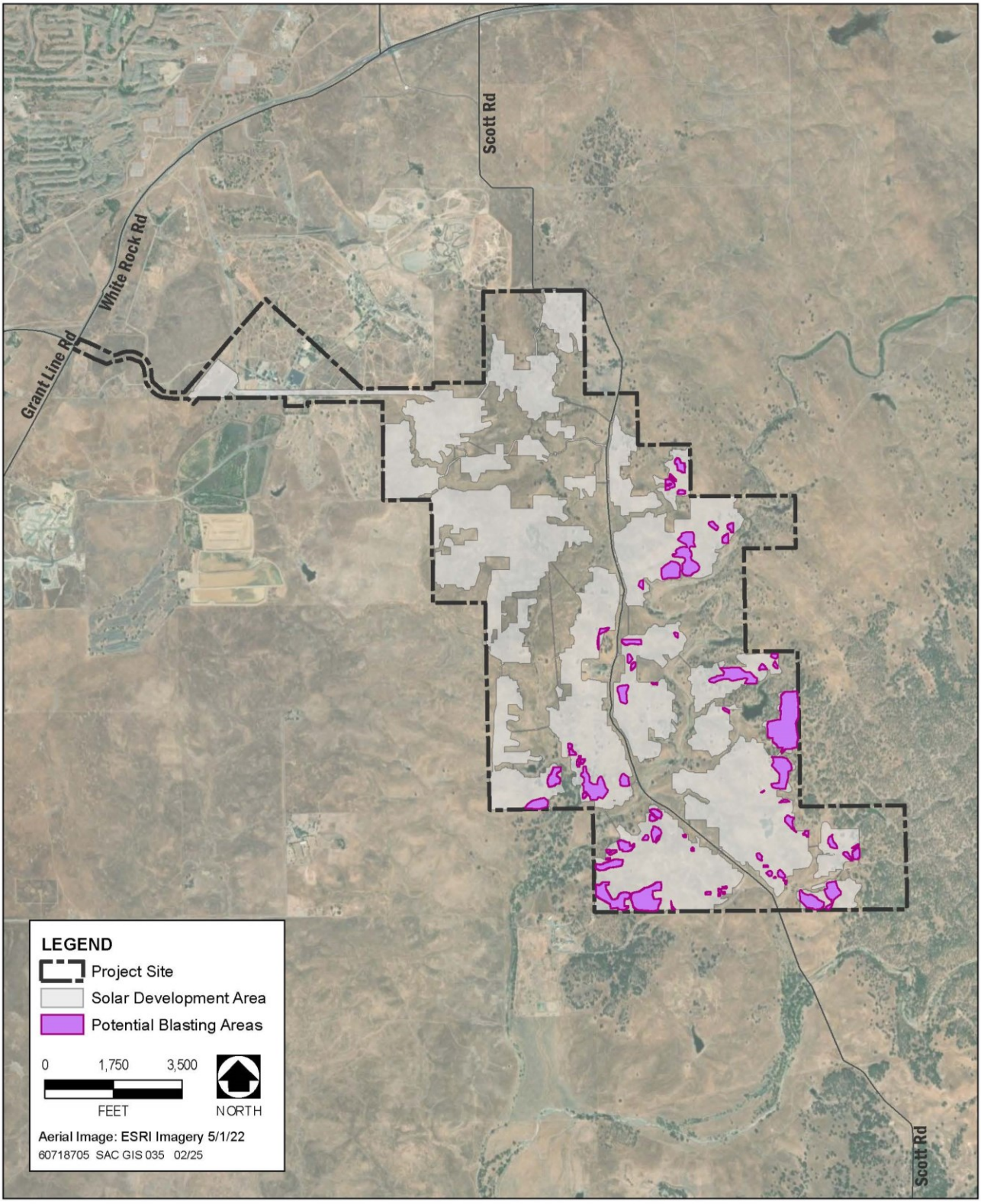
Preliminary blasting locations are included in Plate PD-7. The potential blasting areas identified in Plate PD-7 total approximately 106 acres within the solar development area. Areas that are blasted would be restored in the same fashion as areas that are graded, and fully revegetated with suitable grazing friendly and pollinator friendly seed mixes.

As discussed in Chapter 12, “Noise,” a Blasting Plan would be prepared before any blasting takes place and the Blasting Plan would be required to implemented by the general contractor. The Blasting Plan would identify final locations of proposed blasting, health, and safety measures to ensure that members of the public and on-site workers do not enter the blasting area, and blasting procedures. The plan would identify the proper use, storage, and transportation of explosives consistent with safety requirements as defined by federal, state, and local regulations. Only authorized, qualified, and experienced personnel can handle explosives, and all explosive material would be in a location that avoids exposure to flame, excessive heat, sparks, or impact. Blasting times would be limited to the hours permitted in the County ordinance and nearby residents would be notified in advance of blasting. Additionally, the residents at 3850 Scott Road would be offered the option to temporarily relocate for the duration of blasting activities within 0.5 miles of this residence.

Grading

It is anticipated that approximately 7,500 cubic yards of fill, associated with the Switchyard construction, would be exported off-site during construction. It is anticipated that the rest of the material would remain on-site, and any excess cut material would either be used to support other construction backfill needs (e.g., filling of holes following root ball removal), would be distributed across larger swaths of the array area, or would be stockpiled and stabilized for distribution at decommissioning.

Plate PD-7: Potential Blasting Areas within the Solar Development Area



Source: Dudek 2024

Table PD-5 provides an overview of the grading quantifies anticipated for the various project components.

Table PD-5: Estimated Grading Quantities by Project Component

Project Component	Cut (Cubic Yards)	Fill (Cubic Yards)	Net (Cubic Yards)
Solar array	680,000	520,000	160,000 (Cut)
Access roads	65,000	65,000	Balanced
Erosion control sediment basins	510,000	510,000	Balanced
Substation and battery energy storage system	170,000	80,000	90,000 (Cut)
SMUD switchyard	36,000	28,500	7,500 (Cut)

Source: Dudek 2023
SMUD = Sacramento Municipal Utility District

Following grading, racking installation would begin. Much of the project would be installed via direct-driven piles to support the solar modules and racking. Some piles would require pre-drilling in areas of shallow bedrock or rocky soils. Following installation of piles, racking and torque tubes would be installed to hold the solar modules. Prior to installation, 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.

A variety of methods would be used for installation of underground collection lines. In areas of underground collection, plowing or trenching equipment would be used that excavates the line location, places the line, and immediately backfills thereafter. This allows for a reduction of soil disturbing activities compared to traditional trenching. In some locations, dependent on soil conditions, more traditional trenching via backhoe may be required. In other locations, aboveground collection would be used for collection lines.

Inverters would be delivered via truck to their location via the internal gravel access roads, where they would be put in place via a boom or crane. BESS, substation, and switchyard equipment would similarly be delivered for installation to their location of installation.

Following installation of the array and interconnection facilities, commissioning and testing would occur. Commissioning would generally certify that facility equipment is certified and ready for energy delivery into the electric grid. Commissioning would be completed in coordination with SMUD to ensure that all utility standards and expectations are met.

As commissioning of the facility progresses, site cleanup and restoration activities would be ongoing. This includes final site stabilization of exposed soils and final seeding and revegetation, cleanup of any remaining on-site refuse, final installation of project

landscaping, removal, and restoration of site laydown yards/temporary construction facilities.

Typical construction equipment would include, but is not limited to, skid loaders, forklifts, pickup trucks, flatbed trucks, water trucks, graders, bulldozers, scrapers, rollers, tractors, crushing/processing equipment, excavators, other material handling equipment, small cranes, all-terrain vehicles, pile drivers, generators, line trucks, boom trucks, backhoes, and other construction equipment.

During construction, temporary facilities would be developed onsite to facilitate the construction process. Temporary laydown yards would 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 would be in the areas designated on the proposed site plan.

Water consumption during construction is estimated to be approximately 253 acre-feet for dust suppression, earthwork, and plant re-establishment over an approximately 18-month period. The project proposes to meet demands for construction and decommissioning (253 AF each) with groundwater obtained from Sloughhouse Solar Project wells or the SCWA, or a combination of the two sources (Dudek 2024b, Dudek 2024c, and SWCA 2024). Construction-phase water demand would be greatest during site grading, which would consist of scrapers, dozers, graders, and disc and roll compaction over the site. Operational water use is described below, under the “Operation” section.

Following construction, to provide for agricultural grazing activities and support pollinator species foraging during project operations, the project’s Agricultural Management Plan (Dudek 2025) provides that site-specific seeding would occur based on: (1) soil conditions; (2) appropriate grassland species; (3) pollinator habitat; and (4) dietary preferences of sheep. The site would use a combination of seed drills and/or broadcast seeding followed by light raking, as needed. Hydroseeding and hydro-mulching may also be used depending on the timing and site-specific conditions. Seeding is not recommended in June, July, or August due to high temperatures in the region and subsequent low germination success. As such, seeding is recommended and optimal from October through January or February in this region to utilize natural precipitation for irrigation and increase overall germination survivorship.

Operation

Upon completion of construction, operations at the site would generate approximately 4 to 10 trips per day for maintenance and security personnel. The facility would be primarily operated remotely through a local solar operations and maintenance company, facilitated by the project SCADA system. An additional 32 trips per day were also included to account for water being trucked in for panel washing and sheep/goat grazing activity. To ensure the safety of the public and the facility, the property would be fenced, security lighting installed, and high-voltage warning signs posted. Any security lighting would be

shielded as necessary to reduce light pollution. The fence would be monitored periodically to detect any intrusion into the property.

Access to the project site would be from Scott Road. Access to components of the solar field would be controlled through security gates at several entrances. Multiple gate-restricted access points would be used during construction and operation. The landscape corridor installed at the entrance and along Scott Road would be maintained.

Water used during operation would be used primarily for dust control in compliance with air quality regulations. The project would also use water to wash the solar modules to optimize electrical generation. Expected maintenance personnel would consist of up to 10 individuals to assist in the washing of the solar panels, one to four times per year, depending on site conditions. Panel washing would require 14 days to complete per wash cycle. The project's annual operational demand of 10.5 AFY equates to approximately 6.6 gallons per minute, and therefore the Groundwater Study concluded that one or more of the sample boreholes that were previously drilled on the project site in the Mesozoic bedrock units would be able to support the project's yearly operational demand (see Appendix HYD-1).

The PV modules and ancillary equipment would be constructed of fire-resistant material. The lighting system would provide operation and maintenance personnel with illumination in both normal and emergency conditions. On-site communications during project operations would utilize telephone and internet services provided via overhead or underground lines and/or microwave tower or cellular service from a local provider. A SCADA system would be implemented to remotely monitor the project 24 hours per day, 7 days per week during operations to monitor operations.

Project operations would continue to utilize project site lands for agricultural activities by integrating grazing activities. Landscape maintenance and/or grazing activities would occur to manage vegetation and facilitate use by wildlife.

Decommissioning and Site Restoration

The planned operational life of the facility is 35 years. The project would be decommissioned at the end of its operational life in compliance with Sacramento County's decommissioning requirements. The County requires a decommissioning plan 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.

The applicant has provided a Draft Decommissioning Plan to achieve these requirements (Dudek 2023), which is included as Appendix PD-1 to this EIR. During decommissioning, which would be completed over approximately 12 months, project components that are no longer needed would be removed from the site and recycled or abandoned in place for all underground conductors. Glass and steel that may be recycled would be processed for transportation and delivery to an off-site recycling center. All steel, aluminum, and copper would be recycled, and panels would be recycled in accordance with the PV manufacturer recycling program. The concrete to a minimum of 12 inches below grade, foundation, and parking area would be broken up and removed from the site to an appropriately licensed disposal facility. Transformers using insulating oils would be removed from the site and recycled or disposed of at licensed recycling and disposal facilities. Personnel involved in decommissioning activities would be trained in accordance with applicable regulations.

As part of the preparation for closure, the Spill Containment and Countermeasures Plan for the site would be updated to cover spill prevention and countermeasures for handling these materials during decommissioning. Procedures to decrease the potential for release of contaminants to the environment and contact with stormwater would be specified in a decommissioning SWPPP.

Restoration activities would return the project site to allow for the continued agriculture use (i.e., livestock grazing only) upon decommissioning of the co-located PV solar energy generating facility, and would include the following:

- Continue to use the land for agricultural use including increasing the nutrient content to pre-construction levels and aerating the soils through regular tilling.
- Restoration of vegetative cover and hydrologic function after closure of the facility. The process would involve replacement of topsoil, brush, rocks, and natural debris over disturbed areas so that the site would support agriculture use (i.e., livestock grazing).
- If soils are determined to be compacted at levels that would affect successful restoration, decompaction would occur. The method of decompaction would depend on how compacted the soil has become over the life of the project.
- A combination of seeding, planting of nursery stock, transplanting of local vegetation within the proposed disturbance areas, and staging of decommissioning activities enabling direct transplanting, would be considered. Native vegetation would be used for revegetating to establish a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape.

The success of the restoration effort would be based on the development of the target vegetation communities relative to undisturbed reference sites. The reference sites would represent intact, native vegetative communities with similar species composition and conditions that that occurred prior to impacts. Visual inspections would be conducted to document germination, growth, and survival of seeded species. Data collected would include species composition and cover, general size and vigor of the plants, observed

soil erosion, evidence of wildlife use, and any other information that would be useful in evaluating success. The monitoring program would also include photographic documentation at permanent photo locations.

An estimated total of 253 acre-feet of water would be used for decommissioning activities over 12 months (Dudek 2023).

Areas of Known Controversy

A Notice of Preparation (NOP) was published on January 19, 2022, that described the proposed project and requested comments on the scope and content of the EIR from public agencies and the general public. During the 30-day NOP comment period, an agency scoping meeting was held on February 8, 2022 and a public scoping meeting held on February 9, 2022. Input received as a result of the NOP and scoping meetings relate to: effects on biological resources, aquatic resources, consistency with the South Sacramento County Habitat Conservation Plan (SSHCP) implementation, impacts on endangered and threatened species and other species of concern, impacts on oak woodlands and other trees, and loss of carbon sequestration; effects on hydrology and runoff associated with project operations; archaeological, cultural and tribal cultural resources; glare; and project effects on the recreational lands. All written comments received on the NOP are provided in Appendix PD-2.

Intended Uses of the EIR

The EIR will serve as an informational document for the general public, the County of Sacramento, responsible agencies, trustee agencies, and permitting agencies. The EIR will serve as the CEQA document for responsible agency approvals listed below, as well as to any other approvals that may be necessary to implement the proposed project. The County of Sacramento is the CEQA lead agency for the project. The Sacramento County Planning Commission and the Board of Supervisors will use the information contained in the EIR in evaluating the proposed project and rendering a decision to approve or deny approvals of the project, consider alternatives and mitigation measures. County of Sacramento officials and agencies will use the EIR for other County permits and approvals of the project authorized or required by the County code and/or state law.

The EIR will also serve as the CEQA document for approvals of the project by other local and state agencies with discretionary authority regarding the project (i.e., Responsible Agencies). Responsible Agencies pursuant to CEQA Guidelines Section 15381 may include, but are not limited to, the California Department of Fish and Wildlife, the Central Valley Regional Water Quality Control Board, and SMUD. Federal agencies that may utilize this EIR in their evaluation of the project include the United States Fish and Wildlife Service and United States Army Corps of Engineers.

Table PD-6, below includes information required by Section 15124 of the CEQA Guidelines and summarizes the following intended uses of the EIR:

- A list of agencies that are expected to use the EIR in their decision making.
- A list of permits and other approvals required to implement the Project.
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or polices.

Table PD-6: Subsequent Permits, Approvals, Review, and Consultation Requirements

Agency	Approval
Sacramento County Board of Supervisors	Final Environmental Impact Report Certification
Sacramento County Board of Supervisors	Use Permit, Special Development Permit, and Design Review
Sacramento County Planning Commission	Recommendation to the Board of Supervisors regarding Use Permit, Special Development Permit, and Design Review
South Sacramento Conservation Agency	Consultation with the Agency to ensure no impacts to existing South Sacramento Habitation Conservation Plan preserves
Sacramento Municipal Utility District	Various Agreements
County of Sacramento Site Improvement Section	Grading Permit or Improvement Plans
County of Sacramento Department of Transportation	Encroachment Permit
Sacramento County Environmental Management Department	On-site Wastewater Disposal Permit or Well Certification
Sacramento Metropolitan Air Quality Management District	Fugitive Dust Prevention and Control Plan, Air Quality Permits
Regional Water Quality Control Board – Central Valley Region	Section 402 National Pollutant Discharge Elimination System Permit.
Regional Water Quality Control Board – Central Valley Region	Waste Discharge Permit
California Regional Water Quality Control Board	Clean Water Act Section 401 Certification, Gen-tie Easement and related facilities including compliance with land use covenant related to Aerojet's remediation activities

Agency	Approval
California State Public Works Board	Gen-tie Easement and related facilities
California State Department of General Services	Gen-tie Easement and related facilities
California State Department of Parks and Recreation	Gen-tie Easement and related facilities, State Vehicle Recreation Area mitigation measures
California Department of Toxic Substances Control	Gen-tie Easement and related facilities including land use covenant related to Aerojet's remediation activities
U. S. Environmental Protection Agency	Gen-tie Easement and related facilities including compliance with land use covenant related to Aerojet's remediation activities
California Department of Fish and Wildlife	Lake and Streambed Alteration Agreement, California Endangered Species Act Incidental Take Permit, migratory bird and raptor provisions of California Fish and Game Code.
California Public Utility Commission	Authority to Enter into Power Purchase Agreement
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit
U.S. Fish and Wildlife Service	Federal Endangered Species Act, Section 7 Consultation, and incidental take authorization

Note:
gen-tie generation tie