

9 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This chapter describes the environmental setting and regulatory background related to hazards and hazardous materials at the project site, as well as off-site conditions that could affect on-site development, and identifies and analyzes impacts related to these issues from implementation of the proposed project. Impacts related to hazardous emissions (i.e., toxic air contaminants) are evaluated in Chapter 5, “Air Quality.”

ENVIRONMENTAL SETTING

EXISTING AND PAST USES OF THE PROJECT SITE AND NEARBY LANDS

Portions of the project site were used for surface mining prior to 1937. Dredging operations occurred on the northwestern portion of the project site, and small-scale gold and silver placer mining operations were conducted on the southern portion of the project site. A ranch has been located on the project site for over 80 years, with associated cattle grazing; agricultural development associated with the ranch occurred from 1952 to 1964. Three other small ranches/homesteads were located on the project site from at least 1937 to 1966, and included use of the land for grazing and row crops (Dudek 2021).

Most of the northwestern corner of the project site is occupied by California State Parks (State Parks) for activities associated with the Prairie City State Vehicular Recreation Area (SVRA), including the Maintenance Yard, Communications Office, and refueling area; the SVRA’s groundwater well, water treatment plant, water storage tank, electrical plant, and sewage treatment facilities; the Environmental Training Center; a flat track, go-cart track building and parking, and the American Quarter Midget Association building, track, and parking. In the 1950s and 1960s, this area of the project site was part of a larger area of land owned by Aerojet General Corporation to develop and test solid and liquid fueled rocket propulsion systems for the federal government.

North of the project site, on the north side of White Rock Road, Aerojet currently operates a 40-acre solar farm in partnership with Solar Power, Inc. and the Sacramento Municipal Utility District (SMUD). Aerojet’s solar farm encompasses 22 arrays that generate 6 MW of power, which is used to offset more than 20 percent of Aerojet’s energy demand to operate its groundwater remediation program (USEPA 2010).

HAZARDOUS MATERIALS

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. Federal regulations define a hazardous material as “a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (Code of Federal Regulations Title 49, 171.8j). Section 25501(n) of the California Health and Safety Code defines a

hazardous material as “...any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Hazardous materials include, but are not limited to: hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Section 25141(b) of the California Health and Safety Code defines “hazardous wastes” as wastes that:

...because of their quantity, concentration, or physical, chemical, or infectious characteristics [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment ... when improperly treated, stored, transported, disposed of, or otherwise managed.

A Recognized Environmental Condition means the presence or likely presence of any hazardous substances or petroleum products on the project site under conditions that indicate an existing release, a past release, or a material threat of a future release into the ground, groundwater, or surface water.

PHASE I ENVIRONMENTAL ASSESSMENT

In 2021, Dudek was retained to prepare a Phase I Environmental Site Assessment (ESA) for the 2,704-acre project site to evaluate the potential presence of any Recognized Environmental Conditions. During a site reconnaissance visit conducted by Dudek in 2021, a variety of existing features were noted on the project site, as presented in the bullet points below.

- Actively used ranch house along Scott Road and associated outbuildings including a barn and storage sheds. Typical debris associated with ranch activities (wood frames, metal posts, barbed wire, old water heaters, and limited concrete foundations) were identified around the ranch house and near a former small impoundment on Coyote Creek that created a stock watering pond. Minor quantities of petroleum products are maintained at the ranch to service the ranch equipment, but no evidence of spills or leaks was observed. There is one active and one inactive septic system in place at the ranch house. Two pole-mounted transformers were identified supporting the main ranch house and ranch house production well; the transformers were observed as being in good condition with no evidence of leaks or spills. Two above-ground propane tanks in good condition were identified at the ranch house: approximately 50 gallon and 250 gallon. The ranch has been present at the project site since at least 1937, and therefore the ranch buildings may contain asbestos and/or lead based paint (no surveys for these materials have been performed).
- Verizon cell phone tower.

- Foundations from former homesteads with associated abandoned groundwater wells.
- Several dammed cattle ponds.
- Rows of cobbles and low mounds of gravel and sand with grass on top from historical placer mining.
- Groundwater extraction and treatment (GET) wells, and groundwater monitoring wells, associated with the Aerojet contaminated groundwater plume.
- Three groundwater production wells with standard casings, pumps, and wellheads. These wells extended directly west from the main ranch house out into, and across, Coyote Creek. Two of these wells near the ranch house are currently not operational. The 35-foot-deep well located within the floodplain of Coyote Creek is the current active well for the ranch house.

Beginning in the 1950s, the northwestern portion of the project site and the adjacent property to the north and east were acquired and later used by Aerojet General Corporation and other companies to test fueled propellant rocket engines for the federal government (as discussed in detail below). In the early 1970s, 435 acres were leased from Aerojet by Roy and Mary McGill, who created a motorcycle riding and competition facility called McGill's Cycle Park. Sacramento County purchased the land in 1975 with funds from State Parks' Off-Highway Vehicle Program. Additional land was purchased in 1976, 1988, 2004, and 2014. Sacramento County turned the park over to State Parks' Off-Highway Motor Vehicle Recreation Division in 1988, to be operated as the Prairie City SVRA (California State Parks 2016). Some of the project's improvements are proposed to be installed along the existing SVRA access road adjacent to State Parks' Maintenance Yard, Communications Office, and refueling area; and the SVRA's groundwater well, water treatment plant, water storage tank, electrical plant, and sewage treatment facilities.

The Prairie City SVRA is registered as a Small Quantity Generator of hazardous waste with the California Department of Toxic Substances Control (DTSC). Hazardous materials that may be stored in the maintenance yard at Prairie City SVRA include unleaded gasoline, diesel fuel, oil, and tires to be recycled. Gasoline and diesel fuel are stored in one aboveground tank separated in two 500-gallon sections. Hazardous materials are collected annually by a hazardous materials recycler. Every employee who handles these materials receives training and education. Safety meetings are held at Prairie City SVRA biweekly for maintenance staff members and bimonthly for support staff members (California State Parks 2015).

The Phase I ESA included a site reconnaissance of the Prairie City SVRA facilities on the north side of the project-related improvement area along the existing SVRA access road. No Recognized Environmental Conditions were noted associated with the existing State Parks facilities (Dudek 2021).

AEROJET CONTAMINATED GROUNDWATER PLUME

Aerojet (now Aerojet Rocketdyne Holdings Inc.) has owned and operated a facility to develop and test liquid and solid propellant rocket engines for aerospace activities in

Rancho Cordova since the early 1950s. A portion of the land was sold to the Douglas Aircraft Company in 1961, which constructed numerous structures at seven aerospace complexes and used other small undeveloped areas for small-scale testing and to burn waste propellant (i.e., the Inactive Rancho Cordova Test Site [IRCTS]). Aerojet reacquired the IRCSTS in 1982. In addition, the Cordova Chemical Company operated chemical manufacturing facilities on the Superfund site from 1974 to 1979. Most of the land owned by Aerojet and the Douglas Aircraft Company was undeveloped and served as buffer lands. Approximately 5,900 acres of the Aerojet property were designated as a Superfund site by the U.S. Environmental Protection Agency (USEPA) in 1983. The Aerojet Superfund site is also on the Cortese list (discussed further below). Previous activities conducted within the Aerojet Superfund site included manufacturing and testing of solid rocket motors and liquid rocket engines, chemical manufacturing, and disposal of associated chemicals, solvents, propellants, fuels, oxidizers, metals, and explosives.

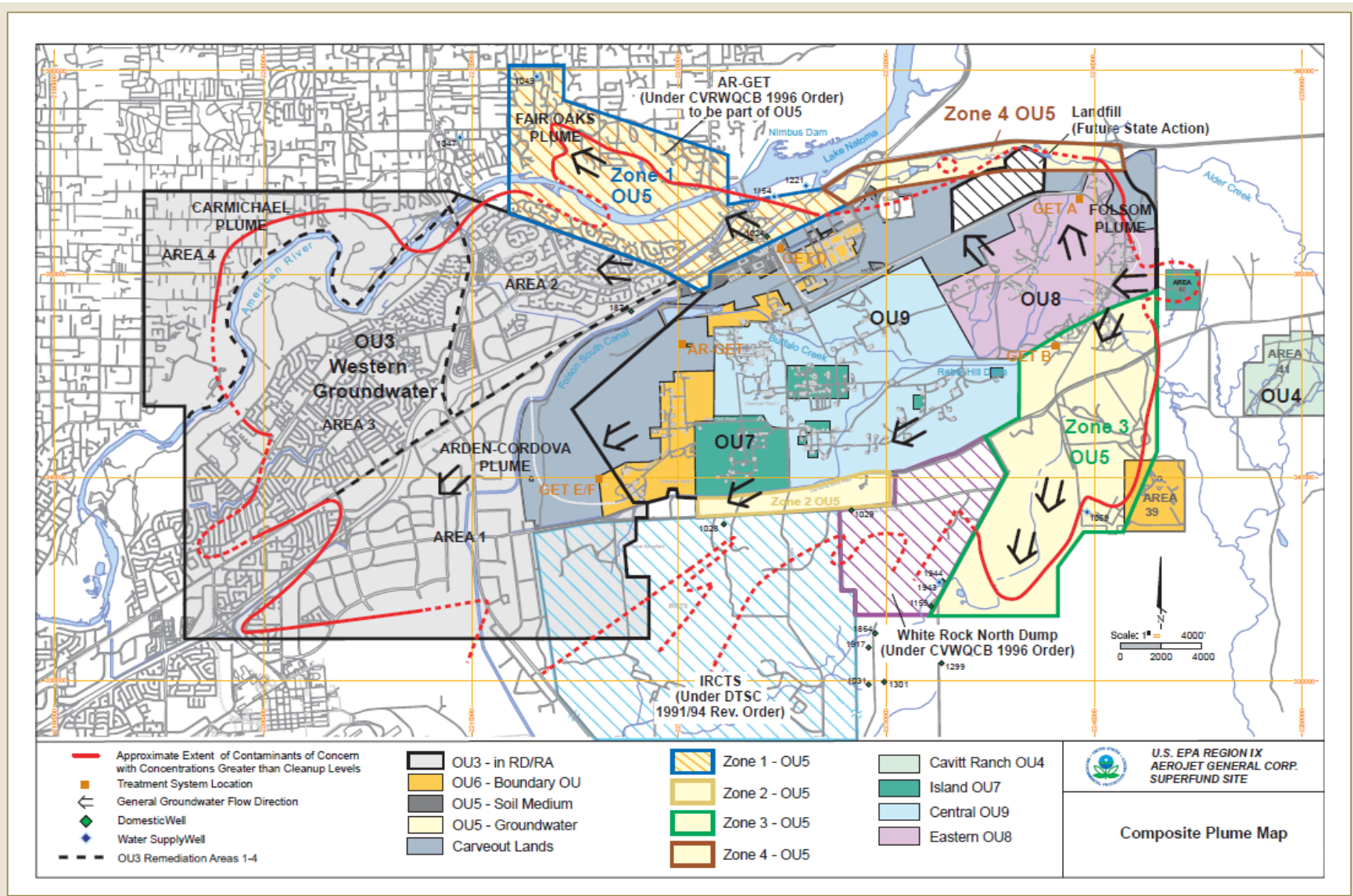
In 1989, Aerojet, USEPA, the Central Valley Regional Water Quality Control Board (RWQCB), and DTSC entered into a partial consent decree. This agreement established procedures and obligations to achieve the goals listed in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (generally referred to as Superfund) and the National Oil and Hazardous Substances Pollution Contingency Plan. Aerojet leads the groundwater and soil cleanup efforts, and actively consults with the federal, state, and local water agencies and a Community Advisory Group for Aerojet Superfund issues. Overseeing agencies monitor a large number of groundwater monitoring wells and require that the effectiveness of the groundwater containment system be evaluated regularly.

In July 1998, the partial consent decree was modified to remove certain areas (referred to as “carve-out” lands) from the Aerojet Superfund site and divide the Superfund site into operable units (OUs) to facilitate completion of remedial investigation/feasibility studies (see Plate HAZ-1). The OUs allowed Aerojet and the regulatory agencies to prioritize investigation and cleanup work. Before any portion of the Aerojet Superfund site can be made available for new uses, USEPA must issue a Record of Decision (ROD) or similar certification indicating that remedial actions have been completed, and that no unacceptable risks would be posed to human health or the environment.

In the vicinity of the project site, the Superfund site boundary is north of White Rock Road (approximately 1 mile from the proposed switchyard), except for the area shown in Plate HAZ-1 and Plate HAZ-2 as Zone 3 OU5, which is south of White Rock Road (approximately 0.8 of a mile west of the western end of the project’s proposed access road).

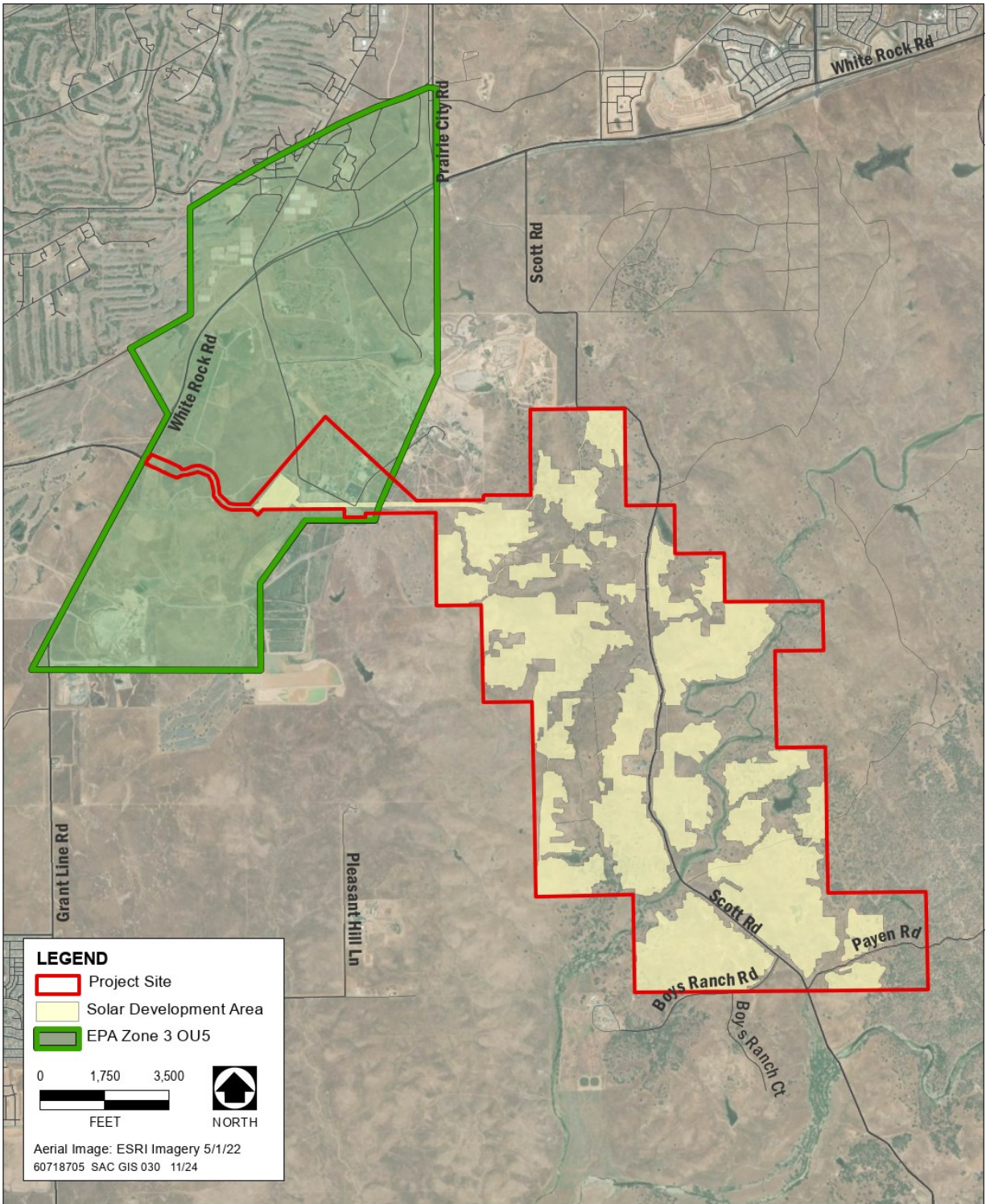
USEPA conducts a formal public review of the Superfund cleanup activities every five years. USEPA updated its most recent *Overview Report for the Aerojet General Superfund Site* in 2021 (USEPA 2021).

Plate HAZ-1: Aerojet Superfund Site and Operable Units



Source: USEPA 2006

Plate HAZ-2: Aerojet Superfund Site and Operable Units within the Project Site



Source: Dudek 2024b, EPA 2021

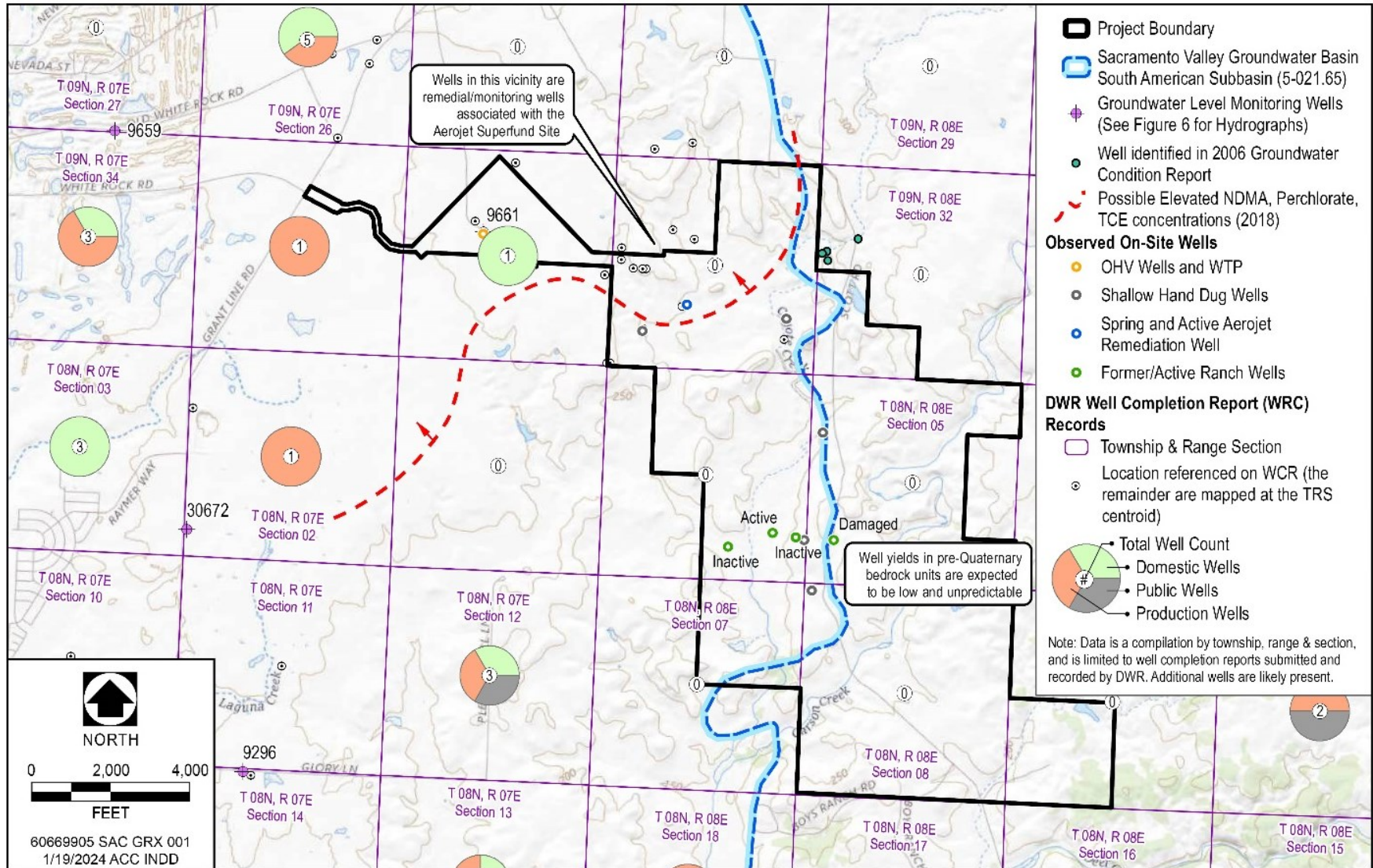
PERIMETER GROUNDWATER OPERABLE UNIT (OU-5)

In August 2002, USEPA and the Central Valley RWQCB issued parallel orders to Aerojet to begin or expand critical work to achieve full containment of contaminated groundwater on the north and south sides of the Aerojet property and to prevent groundwater contamination from continuing to flow off Aerojet's property. Aerojet was directed to conduct a remedial investigation/feasibility study for the Perimeter Groundwater Operable Unit (OU-5) to address the groundwater contamination and investigate more than two dozen potential soil source areas located within Aerojet's perimeter development plans. Contaminated drinking-water wells above the response levels were subsequently removed from service. (The response level is the concentration at which the California Department of Public Health recommends removing a drinking-water source from service.) USEPA signed and adopted a ROD for OU-5 in February 2011, memorializing the plan to contain and treat contaminated groundwater within and outside of moving off the Aerojet property. The approach includes a system to pump groundwater at the outer edge of the plume to prevent further spread of contaminated groundwater. Existing treatment systems (GET) are located within the Aerojet site north of White Rock Road, as well as various locations south of White Rock Road within and near the northern portion of the project site (USEPA 2021).

The northwestern portion of the project site overlies a portion of the Perimeter Groundwater Operable Unit (OU-5), Zone 3 (see Plate HAZ-1, Plate HAZ-2, and Plate HAZ-3). The most prevalent constituents of concern that exceed regulatory thresholds in the groundwater plume consist of perchlorate, N-Nitroso dimethylamine (NDMA), trichloroethene (TCE), and tetrachloroethene (PCE) (USEPA 2021). The majority of groundwater monitoring wells show decreasing concentrations of contaminants. Human health is currently protected through groundwater containment via extraction, institutional controls, and contingency plans that are in place to protect public drinking water wells. A vapor intrusion investigation program was initiated at the Superfund site in 2016; off-property buildings were determined to be not at risk from vapor intrusion (USEPA 2021)

Institutional controls in the form of deed restrictions, which include restrictions on the use of groundwater (no groundwater extraction, groundwater recharge, or temporary pumping of groundwater for excavation of buildings is allowed without prior consultation and written permits from USEPA and the Central Valley RWQCB), are currently in place on Aerojet property. Groundwater use within the Perimeter Groundwater OU but not within the Aerojet property is prohibited by Sacramento County (without prior consultation and written permits) for areas within the County-designated Aerojet Special Planning Area (Sacramento County 2021), which includes the western third of the proposed switchyard area and the proposed access road west of the switchyard (Dudek 2021). The Sacramento County Environmental Management Department (EMD) manages a "Consultation Zone" for new wells that requires all parties to consult with the Central Valley RWQCB prior to drilling a well within 2,000 feet of the groundwater plume emanating from the Aerojet Superfund site (Sacramento County Code Chapter 16.28).

Plate HAZ-3: Aerojet Contaminated Groundwater Plume in the Project Vicinity



Source: Dudek 2024a; adapted by AECOM in 2024

The Aerojet contaminated groundwater plume (Perimeter OU-5, Zone 3) represents a Recognized Environmental Condition for the project site. Plate HAZ-2 depicts the project site relative to OU-5, Zone 3.

The California Department of Water Resources (DWR) reported that the approximate depth to groundwater in the vicinity of the north and northwestern portions of the project site, near the Aerojet contaminated groundwater plume, was approximately 150 feet in the Spring of 2023 (DWR 2024). Shallow groundwater encountered in the soil borings for the site-specific geotechnical report consisted of perched groundwater above an impermeable soil layer, and therefore was not indicative of the actual groundwater table at the project site (Terracon Consultants, Inc. 2021). The shallow, perched groundwater is based on seasonal rainfall conditions and is not contaminated.

CORTESE-LISTED HAZARDOUS MATERIALS SITES

As part of the Phase I ESA, Dudek retained the services of EDR, Inc. to perform a search of over 90 federal, state, and tribal databases related to hazardous materials, including the databases that are maintained under California Public Resources Code Section 65962.5 (i.e., the “Cortese List”).

Other than the Aerojet contaminated groundwater plume discussed above, there were no other hazardous materials sites within the project site on the Cortese listed databases. However, there are two other known Cortese-listed hazardous materials sites near the project site, which are briefly described below.

- **Sacramento County Boys Ranch.** This Cortese-listed site is approximately 850 feet southwest of the southern end of the project site, located at 14049 Boys Ranch Road. This site is a former youth correctional facility with an on-site wastewater treatment facility which operated from 1960 to 2010. Violations related to sewer overflow were documented in 1999 and 2001. In addition, the site also included a chemical storage facility and violations were noted related to improper reporting. A release of gasoline to soil was reported in 1990 and received regulatory closure in 1991. Based on the topographic location of the former Sacramento County Boys Ranch (lower than the project site) and the fact that only the soil was affected not groundwater, Dudek (2021) concluded that the reported violations would not have resulted in a Recognized Environmental Condition for the project site.
- **White Rock Dump North.** This Cortese-listed site is located at the northwest corner of White Rock Road and Grant Line Road (see Plate HAZ-1), approximately 0.65-mile northwest of the proposed switchyard, and approximately 450 feet north of the western end of the proposed project site access road. White Rock Dump North is a closed Class III landfill (intended for disposal of non-hazardous solid waste). The site is a 242-acre parcel that was authorized for operation from 1958 to 1964 by the North American Waste Disposal Company for waste generated in unincorporated Sacramento County. Aerojet also disposed of wastes at this site, including waste that contained TCE. Dumping reportedly continued into the 1970s, past the landfill closure date. Various types of refuse were placed between piles of dredge tailings and covered with adjacent dredged material, and liquid waste was

disposed of in a former 1-acre pond area (DTSC 2024, Central Valley RWQCB 2023). A 1995 preliminary endangerment assessment for the site indicated that underlying groundwater contained several types of VOCs and SVOCs. The direction of groundwater flow from this hazardous materials site is towards the southwest (away from the project site). By 2007, the Central Valley RWQCB had a cleanup and abatement order in place for this site. In 2023, the Central Valley RWQCB issued an updated Cleanup and Abatement Order R5-2023-0700 for the White Rock Dump North (Central Valley RWQCB 2023). Aerojet operates a GET system at the former dump to keep the contaminated groundwater plume from migrating off the site. In addition, the Sacramento County Environmental Management Department serves as the local enforcement agency, and inspects the landfill for compliance with closure requirements (DTSC 2024).

A portion of the former White Rock Dump North has recently been approved for use as a new Class II Waste Management Unit called the Aerojet Waste Consolidation Unit (AWCU). The AWCU will receive non-hazardous, contaminated soil and inert construction debris generated from the clean closure of an existing Class III landfill located within Aerojet-owned property in eastern Sacramento County and from soil remediation activities conducted in accordance with CERCLA remedial actions at the Aerojet Superfund site. Non-hazardous soils will likely contain metals, PCBs, dioxins, perchlorate, SVOCs, and VOCs at concentrations requiring disposal at a Class II facility. Waste Discharge Requirements and a Monitoring & Reporting Program for the AWCU have been adopted by the Central Valley RWQCB. The AWCU will act as a final closure cover for up to approximately 50 acres of the approximately 100 acres of landfilled area. Following closure of the AWCU, the portion of the landfilled area that is not covered by the AWCU will be capped and closed (Central Valley RWQCB 2023).

Although a GET system is operating to remediate the contaminated groundwater plume from the former White Rock Dump and the direction of groundwater flow is to the southwest (away from the project site), the White Rock Dump may represent a Recognized Environmental Condition for the project site due to the close proximity of the dump's groundwater plume to the western end of the project site (Dudek 2021).

In 2024, AECOM performed an updated site-specific search of several databases maintained as part of the Cortese List. The Hazardous Waste and Substances Site List (the "EnviroStor" database) is maintained by the California DTSC (DTSC 2024) as part of the requirements of Public Resources Code Section 65962.5. The State Water Resources Control Board (SWRCB 2024) maintains the GeoTracker database, an information management system for groundwater. Data on leaking underground storage tanks and other types of soil and groundwater contamination, along with associated cleanup activities, are part of the information that the SWRCB must maintain under Public Resources Code Section 65962.5. AECOM also performed a search of the USEPA's Superfund database (which includes records maintained under CERCLA) (USEPA 2024).

The results of these records searches in 2024 indicated there are no new hazardous materials sites with a potential to affect the proposed project other than those already reported in the Phase I ESA and discussed above.

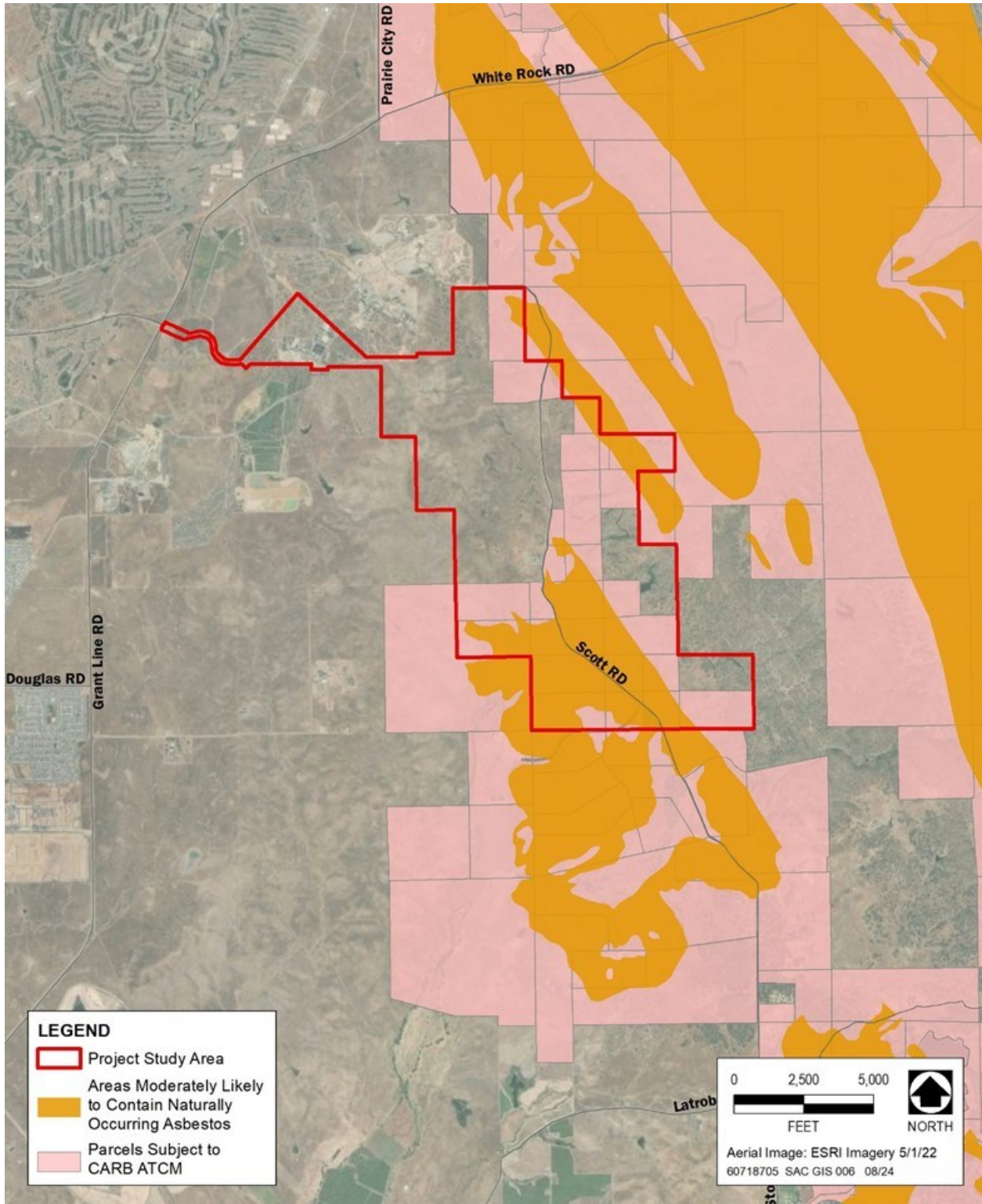
NATURALLY OCCURRING ASBESTOS

Naturally occurring asbestos (NOA) is a term applied to several types of naturally occurring fibrous materials found in rock formations throughout California. Exposure and disturbance of rock and soil (e.g., during earthmoving activities such as excavation and grading) that contains asbestos can result in the release of asbestos fibers to the air. Subsequent inhalation of these fibers can result in serious public health risks such as mesothelioma and lung cancer. Asbestos is commonly found in several types of ultramafic rock, particularly serpentine, which are not present in eastern Sacramento County. However, asbestos can also be found in other types of metamorphic as well as igneous rocks that have undergone periods of deformation, which are present in eastern Sacramento County, as well as in areas where fault zones are present. All types of asbestos are now considered hazardous to human health.

To reduce exposure to asbestos when these soils are disturbed, the California Air Resource Board (CARB) adopted the Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations in 2002. This statewide regulation is applicable to grading or any other projects disturbing soil in areas of California where asbestos may exist, as determined by the California Geological Survey (CGS). The ATCM applies to any size construction project although there are additional notification requirements for projects that exceed one acre.

In 2006, CGS prepared Special Report 192, *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California* (Higgins and Clinkenbeard 2006). Based on Special Report 192, the project site is located within areas categorized as moderately likely and least likely to contain NOA (Higgins and Clinkenbeard 2006). Based on the results of Special Report 192, the Sacramento Metropolitan Air Quality Management District (SMAQMD) created a map of parcels in eastern Sacramento County that are directly subject to ATCM requirements, and parcels that may contain NOA and therefore could be subject to ATCM requirements (SMAQMD 2017). As shown in Plate HAZ-4, portions of the project site are moderately likely to contain NOA and have already been delineated by SMAQMD as parcels that are subject to CARB's ATCM for Construction, Grading, Quarrying and Surface Mining Operations (shown in pink on Plate HAZ-4), unless it is demonstrated by a geotechnical report that NOA is not present. Other areas of the project site may also contain NOA (shown in orange on Plate HAZ-4), and if so, would also be subject to the ATCM. Therefore, the project would be subject to the ATCM unless it is demonstrated by a geotechnical report that NOA is not present.

Plate HAZ-4: Likelihood of Naturally Occurring Asbestos in the Project Vicinity



Source: SMAQMD 2017

Prior to any construction, owners or operators must either “test out” of the ATCM requirements by providing SMAQMD with a geologic evaluation demonstrating that NOA is not present or apply for an Asbestos Dust Mitigation Plan. Plans and requests for geologic evaluations must be submitted to SMAQMD for review and approval. SMAQMD also performs periodic site inspections during construction to ensure that approved Asbestos Dust Mitigation Plans are being implemented (SMAQMD 2017). Refer to Chapter 5, “Air Quality” for additional information related to NOA.

AIRPORTS

The privately-owned Rancho Murieta Airport is approximately 4.5 miles south of the project site. Rancho Murieta Airport does not have a control tower. It has two lighted asphalt runways that are approximately 3,800 feet and 1,150 feet long, respectively. In 2023, there were 22 aircraft based at the field, and there were approximately 22 flights per day averaged over the 12-month period (AirNav 2024a).

The Rancho Murieta Airport does not have an Airport Land Use Compatibility Plan (ALUCP). Land use compatibility and associated hazards for the Rancho Murieta Airport are determined by the Sacramento Airport Land Use Commission (ALUC) Airport Land Use Policy Plan (Sacramento ALUC 1992). The ALUC Airport Land Use Policy Plan for the Rancho Murieta Airport includes an “airport safety restriction area” composed of the clear zone, the approach-departure zone, and the overflight zone. Within the airport safety restriction area, the Airport Land Use Policy Plan indicates that where land uses would result in any of the following conditions, such land uses constitute hazards to air navigation: attraction of large concentrations of birds within approach–climbout areas, smoke production, flashing lights, light reflection, electronic interference, and use or storage of large quantities of flammable materials (Sacramento ALUC 1992:26). Noise contours for the Rancho Murieta Airport are concentrated close to the runway because the total number of yearly flights is low and generally consist of small planes that generate less noise (Sacramento County Department of Planning and Environmental Review 2014).

The runways at the publicly-owned Sacramento Mather Airport are approximately 6.3 miles southwest of the project’s proposed switchyard, and approximately 7.3 miles southwest of the proposed substation. Mather Airport has a control tower, two asphalt/concrete runways that are approximately 11,300 and 3,500 feet long, respectively, along with two helipads. The runways and helipads are lighted. Mather Airport was formerly a military facility (Mather Air Force Base), which was decommissioned and is now a County-owned and operated public use airport. In 2018, there were 52 aircraft based at the field, and there were approximately 272 flights per day averaged over the 12-month period. Mather Airport accommodates large transport planes and high-performance military jets (AirNav 2024b).

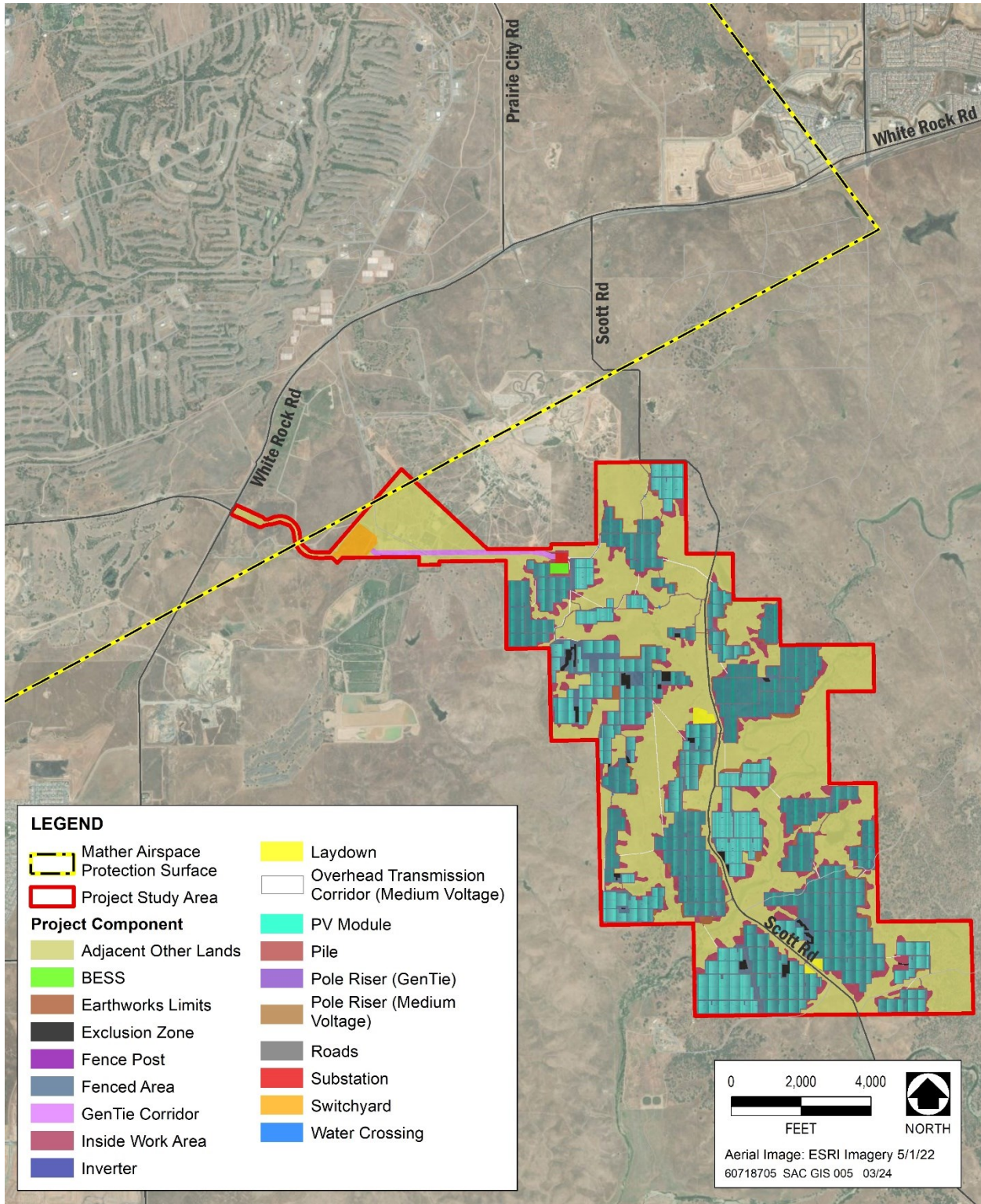
The project site is within the Mather Airport Influence Area (AIA), Review Area 2, as delineated in the Mather Airport ALUCP. Review Area 2 of the AIA is composed of airspace protection areas and the overflight notification area. These areas are: (1) beneath the 14 Code of Federal Regulations (CFR) Part 77 Subpart B imaginary airspace

surfaces; (2) within the overflight notification boundary; and (3) within the 10,000-foot airport operations area buffer wildlife hazards analysis area (Environmental Science Associates 2022). Each of these areas are discussed separately below.

- Tall structures, trees, other objects, or high terrain on or near airports may constitute hazards to aircraft in flight. Federal regulations contained in 14 CFR Part 77 establish the criteria for evaluating potential obstructions. These regulations require that the Federal Aviation Administration (FAA) be notified of proposals related to the construction of potentially hazardous structures. As shown in Plate HAZ-5, the proposed switchyard and gen-tie route, which would include facilities ranging from 100 to 150 feet tall, would be immediately adjacent to, but outside of, the Mather Airport's 14 CFR Part 77 Airspace Protection Surfaces boundary. The proposed substation, which would include facilities up to 150 feet tall, would be approximately 0.75 mile southeast of the Airspace Protection Surfaces boundary (Plate HAZ-5).
- The entire project site is within Mather Airport's Overflight Notification Area (ESA Airports 2022: Figure 4-9). An overflight notification document must be recorded for any local agency approval of residential land use development within the overflight notification area. The proposed project does not include residential development.
- The project site is approximately 30,000 feet northeast of Mather Airport, and therefore is well outside of the airport's 10,000-foot boundary where a wildlife hazards analysis would be required (ESA Airports 2022: Figure 4-8).

Other land uses that may present airport safety hazards, which may be allowed within the AIA only if the proposed land uses are consistent with FAA rules and regulations, include substantial sources of glare (such as from mirrored or other highly reflective buildings or building features). A glare analysis for the project's proposed solar panels has been performed, the results of which are presented in Chapter 3, "Aesthetics," of this EIR and analyzed in Impact AE-4.

Plate HAZ-5: Mather Airspace Protection Surface Boundary



Sources: Environmental Science Associates 2022, Dudek 2024c, and adapted by AECOM 2024

FIRE HAZARDS

WILDLAND FIRE HAZARDS

Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189 require identification of fire hazard severity zones within the State of California. Fire hazard severity zones are measured qualitatively, based on vegetation, topography, weather, crown fire potential (a fire’s tendency to burn upward into trees and tall brush), and ember production and movement within the area in question. In State Responsibility Areas, the California Department of Forestry and Fire Protection (CAL FIRE) is required to delineate three potential wildfire hazard ratings: moderate, high, and very high. These classifications indicate “hazard” not “risk.” CAL FIRE’s fire “hazard” rating is based on the physical conditions that create a likelihood for wildfire in combination with expected fire behavior, over a 30- to 50-year period (without considering measures such as home hardening, recent wildfires that have burned vegetation, or fuel reduction efforts).

The project site is within a State Responsibility Area; most of the project site is designated by CAL FIRE as Moderate Fire Hazard Severity Zone with a portion of the southeastern area designated as a High Fire Hazard Severity Zone (CAL FIRE 2024). Please see Chapter 15, “Wildfire,” of this EIR for a detailed discussion and analysis of impacts related to wildland fire hazards.

BATTERY ENERGY STORAGE SYSTEMS (BESS)-RELATED FIRE HAZARDS

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. A BESS system fire poses potentially significant risks to emergency responders. In January 2025, a significant BESS fire occurred at the Pacific Gas and Electric power plant in Moss Landing, California. The Moss Landing BESS where the fire occurred utilized an older generation of nickel manganese cobalt (NMC) battery chemistry, was packed into a single building, and used large-scale air-cooling systems. While Moss Landing has experienced multiple high temperature incidences, including the recent fire, overall BESS technology has changed since the development of Moss Landing, and codes and standards have also changed since the development of the Moss Landing facility. From 2018 to 2022, BESS failures dropped from 9.2 failures per gigawatt to approximately 0.2 failures per gigawatt in 2023 (EPRI 2024).

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. Safety standards for BESS facilities have been through several code cycle updates since the design of the Moss Landing Facility. Product designs include several generations of improved cell and module manufacturing, chemistry, liquid cooling technology, battery management software, testing, and site design criteria to reduce or eliminate propagation of fire. Some of the advances that would be utilized for the project include standards and regulations described under “Current BESS Safety Standards” in the “Regulatory Setting” Section below.

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.

As with many power generation and storage systems, fire risk cannot be entirely eliminated, and the procedures identified above have been developed in the unlikely scenario of a fire. The current design standards provide that that segregated battery containers (units) include setbacks from one another and from the perimeter of the site. The separated units would be located on a gravel pad or elevated on piers so as not to pose a risk to combustion of organic matter in the surrounding area. These standards, along with the installation protocols developed by each manufacturer, would ensure that in an unlikely scenario where a fire occurs, only a single unit of the BESS system would be put at risk, and that a fire would not spread across the entirety of the site.

In the unlikely scenario where a BESS unit catches fire, the battery within the unit itself may take approximately 6-12 hours to fully burn out. An additional 24 hours following burnout would be applied to allow for the system to cool itself. It is generally advised that water not be applied to a BESS unit in thermal runaway, and these specifications, dependent on final manufacturer selected, would be specified in the project emergency response plan in coordination with local first responders (see Mitigation Measure HAZ-1, below, for more information). In the case of a fire, liquids, and pollutants have the potential for release:

- The project's BESS units are designed with primary and secondary containment for liquids so that even under intense heat scenarios, any liquids released from the batteries are fully contained within the unit. No firefighting water would be added directly to the unit to reduce the risk of chemical leaching into adjacent water features. Following a thermal runaway event, a thorough evaluation of the underlying BESS pad would be completed to determine any localized cleanup. Prior to disposal, chemical testing would be completed to determine proper disposal methods.
- It is anticipated that air pollution would be created in the event of a fire. First responders, project representatives, and officials directly at the scene shall wear respirators in case of fire as that is the area where emissions are the most concentrated. Other projects in nearby jurisdictions have analyzed BESS emissions in the case of a fire (i.e. thermal runaway). The Juniper Creek Energy Storage Project in Rancho Cordova, which would utilize similar technology to the proposed project, analyzed BESS emissions for a 200 MW BESS in the case where a single unit experiences a thermal runaway via the completion of a Health

Risk Assessment. The Health Risk Assessment concluded that “a thermal runaway of a cell or module would be considered a low-priority risk and thus would result in a less than significant impact” (City of Rancho Cordova 2023).

REGULATORY SETTING

FEDERAL

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The USEPA is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials.

MANAGEMENT OF HAZARDOUS MATERIALS

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, and require implementation of cleanup measures if such materials are accidentally released. The USEPA is the agency primarily responsible for enforcing and implementing federal laws and regulations regarding hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained mainly in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws, among others:

- The Toxic Substances Control Act of 1976 (Title 15, Section 2601 and following sections of the U.S. Code [15 USC 2601 et seq.]) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials.
- The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) established an all-encompassing federal regulatory program for hazardous substances that is administered by EPA. Under the Resource Conservation and Recovery Act, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances.
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) created a trust fund to provide broad federal authority for releases or threatened release of hazardous substance that could endanger public health or the environment.
- The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499; 42 USC 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), establishes requirements for federal, state, and local governments, Indian Tribes, and

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

The Emergency Planning Community Right-to-Know Act of 1986 was included under the SARA law and is commonly referred to as SARA Title III. The Act was passed in response to concerns regarding the environmental and safety hazards proposed by the storage and

handling of toxic chemicals. The Act establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and Community Right-to-Know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment.

HAZARDOUS MATERIALS TRANSPORTATION ACT

The Hazardous Materials Transportation Act of 1975 was created to provide adequate protection from the risks to life and property related to the transportation of hazardous materials in commerce by improving regulatory enforcement authority of the Secretary of Transportation.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

The Occupational Safety and Health Administration is the federal agency responsible for enforcing and implementing federal laws and regulations pertaining to worker health and safety. The administration's Hazardous Waste Operations and Emergency Response regulations require training and medical supervision for workers at hazardous waste sites (29 CFR Section 1910.120). Additional regulations have been developed regarding exposure to lead (29 CFR Section 1926.62) and asbestos (29 CFR Section 1926.1101) to protect construction workers.

STATE

SENATE BILL 38: EMERGENCY RESPONSE AND EMERGENCY ACTION PLANS FOR BESS FACILITIES

Refer to text under the "Current BESS Safety Standards" Section, below, for additional information regarding SB 38.

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

The DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law. Since August 1, 1992, DTSC has been authorized to implement the state's hazardous waste management program for CalEPA.

STATE WATER RESOURCES CONTROL BOARD

The SWRCB was established in 1967. The Central Valley RWQCB is authorized by the SWRCB to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the Central Valley RWQCB authority to require groundwater investigations

when the quality of groundwater or surface waters of the state is threatened and to require remediation of the site, if necessary.

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

California Occupational Safety and Health Administration (CalOSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within California. Regulations pertaining to the use of hazardous materials in the workplace (Title 8 of the California Code of Regulations [CCR]) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. CalOSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous-waste sites. The hazard communication program requires that employers make Safety Data Sheets available to employees, and requires documentation of informational and training programs for employees.

The CalOSHA regulations also include requirements for protective clothing, training, and limits on exposure to hazardous materials. CalOSHA also enforces occupational health and safety regulations specific to lead and asbestos investigation and abatement. These regulations equal or exceed their federal counterparts. Specific worker safety measures for excavation hazards (e.g., falling or cave-in of excavation walls) are described in Title 8 CCR Section 1541.

SENATE BILL (SB) 1082 – CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY’S UNIFIED PROGRAM

In 1993, SB 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to ensure that they are consistently implemented throughout the state. The Unified Program is overseen by CalEPA with support from DTSC, the nine RWQCBs, the Office of Emergency Services (OES), and the State Fire Marshal. The six programs are:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Program
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency (CUPA). The Sacramento County Department of Environmental Management is the designated CUPA for the County. In addition to the CUPA, other local agencies, such as the City of Rancho Cordova and the City of Folsom, help to implement the Unified Program.

CORTESE LIST, CALIFORNIA GOVERNMENT CODE SECTION 65962.5

The provisions of Section 65962.5 of the California Government Code are commonly referred to as the “Cortese List” (after the legislator who authored the legislation that enacted it). The Cortese List is a planning document used by state and local agencies to comply with CEQA’s requirement to provide information about the location of hazardous-materials release sites. Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. DTSC and SWRCB are responsible for most of the information contained on the Cortese List. Other state and local government agencies, including the RWQCBs and local cities and counties, are also required to provide additional information for the Cortese List about releases of hazardous materials.

In addition, Section 65962.5 requires all project applicants to consult the Cortese List and determine whether the project site is within a hazardous materials site on the list. If so, the project applicant is required to notify the lead agency in writing prior to the issuance of a building permit, so the lead agency can determine the appropriate course of action (which generally includes environmental site assessments and site-specific remediation).

ASSEMBLY BILL 2185 AND ASSEMBLY BILL 2189, HAZARDOUS MATERIALS BUSINESS EMERGENCY RESPONSE PLAN PROGRAM, CA HEALTH AND SAFETY CODE CHAPTER 6.95

The California Health and Safety Code Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory) requires qualifying businesses to prepare a hazardous materials business plan. The plan must include procedures for managing hazardous materials and hazardous waste. In addition, the plan must describe emergency response procedures and include a list of emergency spill cleanup supplies and equipment. Before an applicant may use hazardous materials at certain defined federal and/or state thresholds, the applicant must submit a Hazardous Material Business Plan to the administering agency.

CALIFORNIA CODE OF REGULATIONS, SECTION 93105, TITLE 17, ASBESTOS AIRBORNE TOXIC CONTROL MEASURE

In 2001, the California Air Resources Board adopted the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. Disturbance of rocks and surface soils in areas known to have naturally occurring asbestos can generate asbestos concentrations that represent a potential public health hazard, requiring dust control measures. This Airborne Toxic Control Measure requires small projects that disturb one acre or less to wet the soil area to be disturbed; wet, cover, or stabilize storage piles; limit vehicle speeds; clean equipment before moving it off-site;

and clean up visible trackout on the paved public road. Large construction projects that disturb more than one acre are required to obtain an approved dust mitigation plan from SMAQMD. The plan must specify measures that would be taken to control emissions of dust and must address track out prevention and removal, disturbed surface areas and storage piles that would be inactive more than seven days, on-site vehicle traffic, active storage piles, earthmoving activities, off-site transport, post construction stabilization, and air monitoring (if required by the SMAQMD). Equipment or activities may not emit dust that is visible crossing the property line.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan of 2005–2030 (Sacramento County 2017) includes the following policies related to hazards and hazardous materials that apply to the proposed project.

HAZARDOUS MATERIALS ELEMENT

- Policy HM-4:** The handling, storage, and transport of hazardous materials shall be conducted in a manner so as not to compromise public health and safety standards.
- Policy HM-7:** Encourage the implementation of workplace safety programs and to the best extent possible ensure that residents who live adjacent to industrial or commercial facilities are protected from accidents and the mishandling of hazardous materials.
- Policy HM-8:** Continue the effort to prevent ground water and soil contamination.
- Policy HM-9:** Continue the effort to prevent surface water contamination
- Policy HM-10:** Reduce the occurrences of hazardous material accidents and the subsequent need for incident response by developing and implementing effective prevention strategies.

SACRAMENTO COUNTY ZONING ORDINANCE – AEROJET SPECIAL PLANNING AREA

County Zoning Ordinance Title V, Chapter 8, Article 3, Sections 508-300 through 508-316, regulates existing and proposed development within the area designated by the County as the Aerojet Special Planning Area. All existing uses are deemed permitted uses within the Special Planning Area as a matter of right requiring only the issuance of a building permit. New uses that have been designated as permitted or allowed with a conditional use permit are listed in the ordinance; additional new uses that are not listed but are of a similar nature may be allowed following review by the County Planning and Environmental Review Department. The Ordinance does not extend County regulatory oversight to activities that are carried out under federal or state oversight based on environmental laws, statutes, ordinances, rules, or regulations (e.g., Aerojet remediation activities). The ordinance is intended to provide a regulatory mechanism for making land

use decisions that maintain a safe environment in which the Aerojet property can be used. The Ordinance also includes the adopted Land Use Master Plans for future development in Glenborough at Easton, and Easton Place.

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. Drilling of new groundwater wells is not allowed within the Aerojet Special Planning Area without prior consultation with USEPA and the Central Valley RWQCB, and issuance of associated written groundwater permits.

SACRAMENTO COUNTY CODE CHAPTER 6.28 – WELLS AND PUMPS

Sacramento County Code Section 6.28.000(G) states that any application for a well permit within 2,000 feet of a known groundwater contaminant plume is subject to special review by appropriate regulatory agencies, including, but not limited to, the Sacramento County Environmental Management Department and the Central Valley RWQCB, to evaluate potential impacts to public health and groundwater quality.

SACRAMENTO COUNTY ENVIRONMENTAL MANAGEMENT DEPARTMENT

The Sacramento County Environmental Management Department serves as the local CUPA, and regulates hazardous waste, aboveground petroleum storage and risk management plans, hazardous materials business plans and chemical inventories, risk management plans, and underground storage tanks.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

CONSTRUCTION ASBESTOS ABATEMENT AND NATURALLY OCCURRING ASBESTOS

The USEPA has delegated authority to SMAQMD to enforce the federal National Emission Standards for Hazardous Air Pollutants through local SMAQMD Rule 902, Asbestos. An asbestos survey must be conducted by a Certified Asbestos Consultant, and an Asbestos Renovation/Demolition Survey & Notification Form must be completed by the consultant and submitted to SMAQMD. An Asbestos Abatement Notification Form is required for projects involving removal of asbestos containing materials greater than 160 square feet, 260 linear feet, or 35 cubic feet. Asbestos containing materials must be removed and properly disposed of by a licensed asbestos abatement contractor.

SMAQMD also enforces CARB's ATCM Rule for projects within SMAQMD's jurisdiction. As noted previously, prior to construction in areas where NOA has been deemed likely to occur by CGS, property owners or operators must either "test out" of the ATCM requirements with a Geologic Evaluation demonstrating that NOA is not present or apply for an Asbestos Dust Mitigation Plan. Plans and requests for geologic evaluations must be submitted to SMAQMD for review and approval. SMAQMD also performs periodic site inspections during construction to ensure that approved Asbestos Dust Mitigation Plans are being implemented.

CURRENT BESS SAFETY STANDARDS

SENATE BILL 38: EMERGENCY RESPONSE AND EMERGENCY ACTION PLANS FOR BATTERY ENERGY STORAGE FACILITIES

SB 38 amended Section 761.3 of the California Public Utilities Code to add safety requirements for battery energy storage projects. BESSs are already highly regulated under Chapter 12 of the California Fire Code, which sets strict standards for installation and operation of such systems, including internal fire detection and suppression systems and require hazard assessments prior to commercial operation. SB 38 requires every BESS facility in California to have an emergency response and emergency action plan that cover the premises of the facility, consistent with Labor Code Sections 142.3 and 6401 and related regulations, including the regulatory requirements applicable to emergency action plans in Title 8 of the California Code of Regulations. Under SB 38, the owner or operator of the facility must coordinate with local emergency management agencies, unified program agencies, and local first responders to develop the plan and must submit the plan to the county and, if applicable, the city where the facility is located.

Specifically, the emergency response and action plan must:

- Establish response procedures for an equipment malfunction or failure;
- Include procedures, established in consultation with local emergency management agencies, that provide for the safety of surrounding residents, neighboring properties, emergency responders; and
- Establish notification and communication procedures between the battery storage facility and local emergency management agencies.

Additionally, the plan may consider responses to potential off-site impacts such as poor air quality, threats to municipal water supplies, water runoff, and threats to natural waterways. The plan also may include procedures for the local emergency response agency to establish shelter-in-place orders and road closure notifications when appropriate.

ADDITIONAL BESS-RELATED SAFETY STANDARDS AND REGULATIONS

Some of the recent advances in BESS-related safety standards and regulations that would be utilized for the project include:

- **Containerization and separation of units through National Fire Protection Agency (NFPA) 855 – Standard for the Installation of Stationary Energy Storage Systems**
 - BESS are no longer project-specific engineered building level systems. NFPA 855 and product designs move to enclosure level BESS units with established spacing criteria to prevent a sitewide event.
 - The standard offers comprehensive criteria for the fire protection of energy storage system installations based on the technology used, the setting

where the technology is being installed, the size and separation of energy storage system installations, and the fire suppression and control systems in place.

- **NFPA 68**

- This standard controls any combustible gas generation through ventilation. It applies to the design, location, installation, maintenance, and use of devices and systems that vent the combustion gases within an enclosure so that structural and mechanical damage is minimized.

- **NFPA 69**

- This standard protects first responders by controlling and directing any buildup of flammable gas, to release in a predictable design. It provides requirements for installing systems for the prevention and control of explosions in enclosures that contain flammable concentrations of flammable gases, vapors, mists, dusts, or hybrid mixtures. It is intended for use by design engineers, operating personnel, and Authorities Having Jurisdiction.

- **Underwriters Laboratory Solution (UL) 9540A**

- UL 9540A was developed to address safety concerns identified by the building codes and the fire service in the United States. One of the primary concerns that NFPA 855 (and the fire codes) try to address is the potential fire and explosion hazards associated with a battery system, such as an uninterrupted power supply or BESS. To control this hazard, the codes specify very stringent limits for energy capacity and separation distances.

- **Technology advances**

- Lithium Iron Phosphate chemistry takes significantly higher internal temperatures to reach a point of thermal runaway and burns at a lower temperature.
- Liquid cooling designs provide more consistent battery health.
- BMS automatic shutoff and isolations.
- Quality control of repeatable productized units in a factory allow for consistent production and improved quality assurance and quality control.

IMPACTS AND ANALYSIS

SIGNIFICANCE CRITERIA

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to hazards and hazardous materials if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably

foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;

- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Please see Chapter 15, “Wildfire,” of this EIR for the analysis of impacts related to wildland fires.

ISSUES NOT DISCUSSED FURTHER

Hazardous Materials Handling or Emissions within One-Quarter Mile of a School—

There are no schools within 0.25 mile of the project site; thus, there would be **no impact**, and this topic is not discussed further in this EIR.

IMPACT HAZ-1: ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS OR REASONABLY FORESEEABLE UPSET AND/OR ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS

Project-related construction and decommissioning activities would involve the use, temporary storage, and transport of small amounts of hazardous substances such as fuels, lubricants, oils, and paint. All materials must be used and stored in compliance with federal, state, and local ordinances, laws, regulations and policies related to hazardous materials as presented in detail in the “Regulatory Setting” section above, including the County’s requirements for handling and transport of hazardous materials. Handlers of hazardous materials (including construction contractors) are required to follow the manufacturer’s labelling instructions for use and disposal. None of the substances used at the project site would be acutely hazardous. Furthermore, because the proposed project would disturb more than one acre of land, the project applicant is required by law to develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which must contain provisions for notification and proper cleanup of spills if they do occur. Therefore, hazards from transport, use, or disposal of hazardous materials, and hazards from accidental spills, would be **less than significant**.

The results of the Phase I ESA performed for the project site (Dudek 2021) did not identify any Recognized Environmental Conditions other than the Aerojet contaminated groundwater plume and the White Rock Dump North, which are evaluated in Impact HAZ-2, below.

Operation of the proposed project would include 3.72 acres of BESS with capacity to store approximately 100 MW AC/400 megawatt hours of energy. As described above in the “Regulatory Setting” section, SB 38 amended Section 761.3 of the California Public Utilities Code to add safety requirements for battery energy storage projects. BESSs are regulated under Chapter 12 of the California Fire Code, which sets strict standards for installation and operation of such systems, including internal fire detection and suppression systems, and requires hazard assessments prior to commercial operation. As discussed above under “BESS-related Fire Hazards”, there have been recent incidents of large fires that have occurred at BESSs in California and other states due to inadequate safety protocols. Therefore, SB 38 requires every BESS facility in California to have an emergency response and emergency action plan that covers the premises of the facility. Additionally, the project would incorporate additional safety standards and regulations as described above in the “Additional BESS-related Safety Standards” Section. Hazards from BESSs are considered a **potentially significant** impact.

Based on CGS Special Publication 192 and the SMAQMD’s applicability map, portions of the project site likely contain NOA and have already been delineated by SMAQMD as parcels that are subject to CARB’s ATCM for Construction, Grading, Quarrying and Surface Mining Operations (see Plate HAZ-4), unless it is demonstrated by a geotechnical report that NOA is not present. Other areas of the project site (shown in orange on Plate HAZ-4) may also contain NOA, and if so, would also be subject to the ATCM. Therefore, this impact is considered **potentially significant**.

MITIGATION MEASURES

Implement Mitigation Measure AQ-3 (Site Investigation for Potential Naturally Occurring Asbestos).

HAZ-1: Prepare an Emergency Response and Emergency Action Plan.

Prior to issuance of grading permits, the operator of the proposed facility shall coordinate with the appropriate local emergency management agencies, unified program agencies, and local first responders to develop an emergency response and emergency action plan. The plan must establish response procedures for an equipment malfunction or failure; include procedures that provide for the safety of surrounding residents, neighboring properties, emergency responders; and establish notification and communication procedures between the battery storage facility and local emergency management agencies. The plan shall be submitted to the County for review and approval.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure HAZ-1 would reduce the impact from potential hazards associated with the proposed battery storage system to a **less-than-significant** level by requiring preparation of an emergency response and emergency action plan that meets the requirements of SB 38, which would be submitted to the County for review and approval. Implementation of Mitigation Measure AQ-3 would reduce human health hazards associated with generation of fugitive dust that potentially contains NOA. If the site investigation determines that NOA is present on the project site, then implementation of a SMAQMD-approved dust mitigation plan would reduce the impact from human health hazards related to generation of airborne NOA during construction and decommissioning activities and as a result, the impact would be **less than significant with mitigation**.

IMPACT HAZ-2: HAZARDS FROM DEVELOPMENT ON A SITE LISTED IN CALIFORNIA GOVERNMENT CODE SECTION 65962.5 (CORTESE LIST)

The Aerojet contaminated groundwater plume is part of the Aerojet Superfund site and is also on the Cortese list. The northwestern portion of the project site would include installation of new facilities on land that overlies the plume. As described above, the approximate depth to groundwater in the north and northwestern portions of the project site, in the vicinity of the Aerojet contaminated groundwater plume where deeper excavations may be necessary for project-related electrical towers, was approximately 150 feet in the Spring of 2023 (DWR 2024). Groundwater encountered in the soil borings for the site-specific geotechnical report consisted of perched groundwater above an impermeable soil layer, and therefore was not indicative of the actual groundwater table at the project site (Terracon Consultants, Inc. 2021). The shallow perched groundwater is not contaminated. Therefore, construction-related excavation for the proposed project would not encounter contaminated groundwater.

Aerojet is conducting ongoing groundwater remediation activities in the project area via GET wells, and also operates groundwater monitoring wells, with oversight from the Central Valley RWQCB and USEPA. An existing GET well is situated in the immediate vicinity of the proposed access road from the proposed switchyard to the existing SVRA access road (which would also provide access to the project site; additional project-related improvements are proposed along the road, including installation of electrical towers). Additional GET wells and monitoring wells are situated in the vicinity of the proposed substation, BESS, and solar panels to the north. Another GET well and adjacent monitoring well are located adjacent to a small spring in the central portion of the project site. Furthermore, construction of the western end of the proposed access road at Grant Line Road would occur approximately 400 feet from a Cortese-listed site (the White Rock Dump North), which also includes a contaminated groundwater plume. Project-related facilities have the potential to interfere with remediation activities by damaging or destroying existing remediation and/or monitoring wells during the construction process, and during project operation if proposed facilities are not properly sited.

Potable water is needed to supply the proposed project during the construction, operation, and decommissioning phases. Based on the results of a *Groundwater Resource Impact*

Analysis (Groundwater Study) performed by Dudek (2024b), it is unlikely that the existing on-site groundwater wells have sufficient production capability for the 253 acre-feet of water needed over the projected 18 months for project construction and 12 months of decommissioning. The current on-site wells only supply the existing ranch house needs and have a history of going dry (Dudek 2021). The Groundwater Study also concluded that the potential for obtaining additional groundwater from new wells drilled in either the younger Cenozoic units or the older Mesozoic units to serve as the principal water source for project construction and decommissioning appears infeasible due to the measured potential well yields (Dudek 2024b). The Groundwater Study (Dudek 2024b) noted that additional aquifer testing would be required to evaluate the younger Cenozoic units on the project site, but stated that the current wells may be adequate for the project's estimated operational needs (i.e., 10.5 acre feet per year over a 35-year period).

Depending on the location of the project's groundwater well(s), groundwater withdrawal to supply the proposed project has the potential to cause migration of the Aerojet plume, which contains perchlorate, NDMA, PCE, and TCE and which occurs in some of the younger Cenozoic units on the project site (see Plate HAZ-3). The contact between the younger Cenozoic units on the west with the older bedrock units is approximately the same as the groundwater subbasin boundary line shown in Plate HAZ-3. The amount and extent of the Aerojet contamination plume is only generally defined, and therefore the Groundwater Resource Analysis stated that if groundwater pumping from outside the current areas of Aerojet remediation in the younger Cenozoic units is considered, the groundwater evaluation should include an analysis of the potential for groundwater migration from the adjacent Aerojet plume (Dudek 2024b). Therefore, this impact is considered **potentially significant**.

MITIGATION MEASURES

HAZ-2a: Prohibit New Groundwater Wells and Use of Existing Groundwater Wells Within the Contaminant Plume Consultation Zone.

1. No new project-related groundwater wells shall be installed within the 2,000-foot Consultation Zone established by County Municipal Code 6.28.000(G) adjacent to the boundary of the Aerojet contaminated groundwater plume.
2. Existing groundwater wells within the project site that are within the 2,000-foot Consultation Zone shall not be used for project-related water supply.

HAZ-2b: Prepare and Implement a Health and Safety Plan.

To protect the health of construction workers and the environment, the project applicant or construction contractor(s) shall prepare and implement a Health and Safety Plan (HASP) as described below:

- The HASP shall be prepared in accordance with State and federal OSHA regulations (29 CFR 1910.120) and approved by a certified industrial hygienist. Copies of the HASP shall be made available to construction workers for review

during their orientation training and/or during regular health and safety meetings. The HASP shall identify potential hazards (including stained or odiferous soils at any location where earthmoving activities would occur), chemicals of concern (e.g., perchlorate, PCE, TCE, NDMA), personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures.

- The HASP shall also require notification of Aerojet, USEPA, and the Central Valley RWQCB if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater, or groundwater with a surface sheen) is encountered within the area underlain by the Aerojet groundwater plume or the vicinity of the White Rock Dump North. All excavation activities within 100 feet of encountering such soil or groundwater shall cease until consultation occurs with Aerojet and the appropriate regulatory agencies.
- The HASP shall state that if previously undiscovered underground storage tanks related to ranch activities, or stained or odiferous soil or groundwater are encountered outside the areas of the Aerojet groundwater plume or the White Rock Dump North during construction activities, Sacramento County EMD shall be notified and the situation shall be remediated in accordance with Sacramento County EMD requirements. If directed by Sacramento County EMD, the project applicant shall retain a licensed environmental professional to conduct a Phase II ESA that includes appropriate soil and/or groundwater analysis. Recommendations contained in the Phase II ESA to address any contamination that is found shall be implemented before reinitiating ground-disturbing activities in these areas.

HAZ-2c: Coordinate with Aerojet to Close, Relocate, or Avoid Monitoring Wells.

During the project's design phase, the project applicant and its engineer(s) shall consult with Aerojet with oversight by Sacramento County to ensure that project-related facilities are placed far enough away from existing remediation and monitoring wells to avoid damage or destruction and to ensure that Aerojet retains appropriate access to the wells. If construction activities would occur within 100 feet of any existing remediation or monitoring wells, exclusionary fencing shall be placed around the wells prior to the start of construction activities. If avoidance of remediation or monitoring wells is infeasible, the project applicant shall coordinate with Aerojet for the closure, relocation, or replacement of wells in a manner that complies with Aerojet remedial activities and monitoring plans. The locations of existing remediation and monitoring wells at the project site, and wells that are off-site but within 100 feet, shall be shown on the construction drawings and the construction contractor shall be informed of the locations of the wells with instructions to avoid them. If any remediation or monitoring wells are damaged during construction, the project applicant shall be responsible for paying for repairs, at the discretion of Aerojet.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure HAZ-2a would reduce the potentially significant impact from effects on the Aerojet contaminated groundwater plume by ensuring that no new groundwater wells or water from existing groundwater wells within 2,000 feet of the contaminated groundwater plume is used for project-related purposes. Implementation of Mitigation Measure HAZ-2b would reduce the potentially significant impact from encountering previously unknown soil or groundwater contamination at the project site by requiring preparation of a HASP, consultation with the appropriate regulatory agencies, performance of a Phase II ESA with soil or groundwater testing, and implementing remediation prior to resuming construction. Implementation of Mitigation Measure HAZ-2c would reduce the potentially significant impact from damage to or destruction of Aerojet remediation and monitoring wells by requiring that the project applicant coordinate with Aerojet during the project design phase to ensure that wells are properly avoided and appropriate access to Aerojet is provided, and to ensure that well locations are marked on construction drawings and in the field with installation of exclusionary fencing. Therefore, with implementation of Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c, impacts from construction in a Cortese-listed site would be reduced to a **less than significant** level.

IMPACT HAZ-3: AIRPORT SAFETY HAZARDS

RANCHO MURIETA AIRPORT

The privately-owned Rancho Murieta Airport is approximately 4.5 miles south of the southern end of the project site. The tall facilities at the proposed on-site substation, gen-tie route, and switchyard would be approximately 7.5 miles north of the Rancho Murieta Airport. Airport safety zone contours for the Rancho Murieta Airport were created for the Ward Property Soil Borrow Site IS/MND (Sacramento County Department of Planning and Environmental Review 2014). The largest safety zone which extends furthest from the runways is Zone 6, the Traffic Pattern (Overflight) Zone. The dimensions of the Rancho Murieta Airport safety areas were determined by evaluating FAA safety zone dimensions, by analyzing historical aircraft accident data and by evaluating safety zone dimensions that encompass significant hazard areas. Rancho Murieta is a small airport without a control tower and does not accommodate commercial jet flights, and it has a small number of average daily flights (i.e., 22 flights per day in 2023) by small aircraft. In general, most aircraft accidents happen within one mile of the runways and therefore this 1-mile distance is of the greatest concern for land use planning (Sacramento ALUC 1992). Due to the distance of the project site from the Rancho Murieta Airport, and based on a review of the Sacramento Airport Land Use Policy Plan (Sacramento ALUC 1992) and the California Airport Land Use Planning Handbook (Caltrans Division of Aeronautics 2011), the proposed project would not represent an airport noise hazard or safety hazard for the Rancho Murieta Airport, and thus there would be **no impact**. (Please see Chapter 3, "Aesthetics," for the analysis related to hazardous glare impacts.)

SACRAMENTO MATHER AIRPORT

The runways at the publicly-owned Sacramento Mather Airport are approximately 6.3 miles southwest of the project's proposed switchyard and gen-tie route, and approximately 7.3 miles southwest of the proposed substation. The project site is within the Mather Airport Influence Area, Review Area 2, as delineated in the Mather Airport ALUCP (ESA 2022). Mather Airport includes a control tower with instrument approaches and accommodates hundreds of flights per day comprised primarily of commercial jets and military aircraft.

Because the project site is 6.3 miles from the nearest Mather Airport runways where loud aircraft would be operated, the proposed project would not represent a noise hazard with respect to Mather Airport.

The maximum height of the proposed BESS would be 25 feet; the BESS would be arranged in modular arrays similar to cargo containers. The project's proposed 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 extend from the proposed substation to the proposed switchyard along the project's access road, which includes a portion of the existing Prairie City SVRA paved access road along the SVRA's southern boundary. The project's on-site substation would consist of components up to 150 feet tall, and feeders would be overhead lines constructed with 150-foot-tall and 100-foot-tall poles for single and double circuits, respectively. As shown in Plate HAZ-5, the proposed switchyard and gen-tie route would be immediately adjacent to, but outside of, the Mather Airport's 14 CFR Part 77 Airspace Protection Surfaces boundary. The proposed substation would be approximately 0.75 mile southeast of the Airspace Protection Surfaces boundary. Therefore, the proposed project components would not represent a violation of CFR Part 77 Subpart B imaginary airspace surfaces associated with Mather Airport.

An overflight notification document must be recorded for any local agency approval of residential land use development within the overflight notification area; however, the proposed project does not include residential development.

Therefore, implementation of the proposed project would not result in an aircraft safety hazard or a safety hazard for people residing or working in the project area as related to Mather Airport, and this impact would be **less than significant**.

Potential aircraft hazards associated with substantial new sources of glare from the PV panels are evaluated in Chapter 3, "Aesthetics."

IMPACT HAZ-4: IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN

All construction materials and equipment would be staged and stored on the project site. However, temporary lane closures could be necessary for a short period during

construction of the west end of the project's access road at the intersection of Grant Line and White Rock Roads, or during construction of project access roads from Scott Road.

The project applicant is required to obtain written authorization from the Sacramento County Department of Transportation for construction of roadway improvements where lane closures are required, including an encroachment permit. The Right of Way Management Section acts as the lead agency in the review process and is responsible for the coordination and management of the review process. Traffic Control Plans and/or Detour Plans are reviewed and managed by the Right of Way Management Section and are required for all construction work within the road right of way which modifies vehicular, bicycle, and/or pedestrian traffic patterns. Traffic Control Plans for project-related construction of the aforementioned access roads would be prepared and implemented by the applicant and reviewed and approved by the County required to ensure the safe and efficient movement of traffic and emergency vehicles through construction work zones.

Emergency access during project construction and operation would be provided from the new access road west of the proposed switchyard, and then along a portion of the existing Prairie City SVRA access road along the southern end of the SVRA, and from there into the project site. Emergency access would also be available from several new project access roads that would extend onto the site east and west from Scott Road.

The project site is not situated in an area of the County where flood hazard evacuation zones have been designated (Sacramento County 2024a). In the event of an evacuation from a wildland fire hazard, the project site is situated in Evacuation Zone 84: Slough House & Rancho Murietta. For this evacuation zone, Scott Road, Grant Line Road, White Rock Road, and Prairie City Road are all designated routes leading east-west and north onto U.S. Highway 50 (Sacramento County 2024b). Any necessary emergency evacuations in the vicinity of the project site would be coordinated by Sacramento County officials through the County OES. Sacramento County OES has prepared and maintains the *Sacramento County Evacuation Plan* (Sacramento County OES 2018). As discussed in the Evacuation Plan, the primary mode of transportation that would be used during an evacuation would be the evacuees' private transportation resources. Law enforcement would be the primary agency for managing the movement of people during an evacuation. Primary evacuation routes in Sacramento County consist of the major interstates, highways, and prime arterial roadways. Traffic conditions are monitored along evacuation routes, and operational adjustments would be made by County officials as necessary during an evacuation to maximize throughput. During an evacuation, County Department of Transportation traffic engineers, along with California Department of Transportation (Caltrans), would be able to quickly calculate traffic flow capacity and decide which of the available traffic routes should be used to move people in the correct directions and to adjust evacuation routes based on real-time conditions. Additionally, known traffic conditions may be communicated to Internet applications such as WAZE and Google Crisis Maps to better inform the public in real time regarding available traffic conditions. In the immediate project vicinity, any employees who may be present on the project site could use either the Prairie City SVRA access road, which connects with White Rock Road for east-west movement, or the project's western access road which connects with Grant Line Road (north-south) and White Rock Road. From White Rock Road a variety

of roadways provide access to U.S. 50 including Prairie City Road and East Bidwell Street.

Project operations would be monitored remotely through the control system, with only periodic inspections and maintenance activities that could require up to 10 employees during routine maintenance activities, grazing activities, and solar panel washing. Therefore, it is unlikely that workers would be on-site even if an evacuation were necessary, but in that event, either Scott Road or the project's new access road at the intersection of Grant Line and White Rock Roads would be used for evacuation from the site. These access roads would also provide emergency vehicle access to the site, as part of the project's emergency response and emergency action plan required by SB 38.

For the reasons stated above, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and therefore this impact would be **less than significant**.