

3.1.5 Hazards and Hazardous Materials

This section of the Environmental Impact Report (EIR) discusses potential impacts related to hazards and hazardous materials resulting from implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project, which were prepared in accordance with the *County of San Diego Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a), *County of San Diego Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b), *County of San Diego Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c), and the *County of San Diego Environmental Impact Report Format and General Content Requirements* (County of San Diego 2006):

- *Phase I Environmental Site Assessment, Boulevard Starlight Solar* (Michael Baker International 2023) (Appendix I of this EIR)

This analysis is further supplemented by the following technical studies:

- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System NFPA 551 Fire Risk Assessment and Heat Flux Analysis* (Hiller 2025a) (Appendix O.1 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Battery Energy Storage System IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025b) (Appendix O.2 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant NFPA 551 Fire Risk Assessment* (Hiller 2025c) (Appendix O.3 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant IEC 60812 Failure Mode and Effects Analysis* (Hiller 2025d) (Appendix O.4 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary Balance of Plant Hazard Mitigation Analysis* (Hiller 2025e) (Appendix O.5 of this EIR)
- *Starlight Solar Major Use Permit PDS2022-MUP-22-010 Preliminary First Responders Guide* (Hiller 2026 ~~Hiller 2025f~~) (Appendix O.6 of this EIR)
- *Battery Energy Storage System Plume Study for Starlight Solar* (Hazard Dynamics 2026) (Appendix O.7 of this EIR)

This section is divided into an analysis of potential hazards to public safety and the environment related to hazardous materials, schools, airports, and emergency response and evacuation plans. The discussion of hazards and hazardous materials describes known and potential impacts due to hazardous materials/wastes, potential transport and disposal of hazardous materials, and potential threats of release of hazardous materials. The wildland fires analysis that examines fire threat hazards and the potential for wildfires on the project site and within wildland/urban interface areas is covered under Section 2.7, Wildfire. The proposed project's impacts on fire protection services are covered under Section 3.1.8, Public Services.

Comments received in response to the Notice of Preparation (NOP) include concerns regarding glint and glare impacts to motorists on Interstate 8 (I-8), potential fire hazards, and potential safety hazards to construction workers. These concerns are addressed in this section of the EIR where applicable, as well as within the *Fire Protection Plan, Starlight Solar Project* (SWCA Environmental Consultants 2024; Appendix L). Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.5.1 Existing Conditions

Project Site

The project site currently consists of 588 acres of vacant land, including several unpaved roads and an unimproved landing strip to the southeast of Jewel Valley Road. The project site does not contain any structures. The Desert Line of the San Diego & Arizona Eastern Railway crosses the site from east to west; however, the Desert Line is not currently in use, except for a 5-mile stretch in Campo, California that is run by the Pacific Southwest Railway Museum (San Diego Metropolitan Transit System 2013; *San Diego Tribune* 2021). The nearest school is Clover Flat Elementary School, approximately 0.75 mile northwest of the project site (Figure 3.1.5-1).

A visual site reconnaissance conducted by vehicle of the readily accessible areas of the project site and immediately adjoining properties was conducted on June 20, 2023, in support of the Phase I Environmental Site Assessment for the project (see Appendix I). The project site was examined from public thoroughfares.

Hazardous Materials

Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. The California Health and Safety Code (H&SC), Section 25501, defines a hazardous material as follows:

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 that 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.

In California, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). The DTSC maintains a list of active registered hazardous waste transporters throughout the state. Transportation of hazardous materials is permitted on I-8 and State Route (SR) 94 in the project vicinity. The Desert Line of the San Diego & Arizona Eastern Railway runs through the project site from west to east; however, the Desert Line is not in current operation and would require rehabilitation before operations could resume. If railway operations were to resume, the railway would have the potential to carry hazardous and toxic materials. Truck traffic to and from the Tecate Port of Entry poses the risk of an accident and spill/release on winding and narrow SR 94.

Potential Hazardous Material Association with Historical Land Uses

Historical land uses and conditions within the project site may have resulted in adverse impacts to the project site, representing potential hazards to humans and the environment. In August 2023, a Phase I Environmental Site Assessment was prepared for the project site (see Appendix I). The Phase I Environmental Site Assessment includes a history of the site that was compiled based on the review of historical aerial photographs and topographic maps, agency records, city directory listings, building permit reports, and site owner/representative interviews. The objective of the Phase I Environmental Site Assessment was to identify Recognized Environmental Conditions (RECs) that affect the project site. RECs are defined by ASTM International (ASTM) as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment;

(2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment” (ASTM 2021). According to the ASTM Phase I Environmental Site Assessment standard, the term *recognized environmental condition* is not intended to include de minimis conditions (minor things) that generally do not present a material risk or harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government authorities.

The project site historically consisted of vacant land, ranching/grazing land, unimproved roads, intermittent streams, and ponds. There are no indications of on-site solid waste disposal practices (i.e., landfills). Additionally, a railroad track has been present at the subject property since at least 1939. Adjoining land uses have historically consisted of vacant land, unimproved and light duty roads, railroad tracks, rural residential uses, a San Diego Gas and Electric Company (SDG&E) facility, and ranching operations. Rural residential uses were apparent in the surrounding area since at least 1939, and increased residential development in the general vicinity was apparent through present day. Additionally, indications of mining activities adjoining various locations of the subject property were apparent beginning in 1975. Land further to the north along Old Highway 80 appeared to have been developed by 1939 and has been further developed with various commercial businesses, state government buildings, and public service facilities over the years (see Appendix I).

Historic Uses of Hazardous Concern

Portions of the project site were historically used for agricultural purposes. Based on historical documentation, land south of the airstrip on the project site may have been used as ranching/grazing land beginning in 1989 (see Appendix I). The former ranching/grazing land use on-site appeared to be ancillary uses supporting historic and current ranching operations at the western-adjointing Empire Ranch property. Based on a review of historic topographic maps, two water wells were depicted on the current landing strip area from at least 1959 to 2018. The water wells are dry and associated with the western-adjointing Empire Ranch property. As disclosed in the Phase I Environmental Site Assessment, no current or former chemicals of concern were identified as being used on-site (see Appendix I). Historically, fertilizers and pesticides have been used for the on-site oak trees. Such operations appeared to follow standard customary practice for ranching uses. Because pesticides break down over time, it is likely that concentrations of residual compounds, if present, are below risk-based criteria for the proposed use of the project site (see Appendix I). As such, the former grazing and ranching activities have not resulted in a REC.

According to the Phase I Environmental Site Assessment, based on historical documentation, a building was present on the current airstrip area from at least 1939 to 1942. This area of the project site has since been graded and was developed with an unpaved landing strip by 2005, which is no longer operational. As such, the airstrip use has not resulted in a REC (see Appendix I).

Two industrial drums were noted during the site reconnaissance in the southwestern portion of Area G, near an area of natural ponding. According to interviews, the drums are likely used to store firewood and do not contain hazardous materials (see Appendix I). No leaking, staining, or other indications of a release of hazardous materials was observed in the vicinity of the drums. In addition, one pole-mounted transformer was observed in the southwestern portion of Area A. Polychlorinated biphenyls (PCBs) could be associated with the on-site transformer; however, the transformer appeared to be in good condition, and no evidence of leakage or staining was observed (see Appendix I).

A portion of the San Diego & Arizona Eastern Railway was apparent on the southern portion of the site by 1939. The railroad is no longer operational. Railroad tracks are typically associated with the use of pesticides and arsenic, and the presence of gasoline, diesel, and/or creosote underneath and surrounding the railroad is likely. Active and inactive railroad beds frequently have concentrations of petroleum products

and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control. Therefore, the former on-site railroad track is considered a REC (see Appendix I).

As noted in the Phase I Environmental Site Assessment, one listed site, the Risley Burroughs Deposit/Risley Deposit, was reported within the project area. Mining activities were reported on the site in 1982 and 1991, and the commodities reported included quartz and silica. The site is listed in the Mineral Resources Data System database (see Appendix I). However, the County of San Diego (County) Department of Environmental Health and Quality (DEHQ), Hazardous Materials Division (HMD), indicated no records are available for the address.

No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the project site. The project site has not been under investigation for violation of any environmental laws, regulations, or standards (see Appendix I).

Environmental Database Records

As part of the desktop environmental review, regulatory agency records of known hazardous contamination sites were reviewed, including Geotracker, the Regional Water Quality Control Board database, and EnviroStor (Cortese List), the DTSC database. There are no known hazardous sites on the project site. The nearest existing hazardous sites include:

- California Department of Transportation (Caltrans) substation in Boulevard (Case #T0607300001) located at 40945 Old Highway 80 as a leaking underground storage tank cleanup site. The site has been closed since November 12, 2015, and is approximately 1,400 feet (0.26 mile) east of the project site, east of the Boulevard substation along Old Highway 80 (State Water Resources Control Board 2025).
- Mountain Top Market (Case # T0607300002) located at 39710 Old Highway 80 as a leaking underground storage tank cleanup site. The site has been closed since February 17, 2009, and is located approximately 1.4 miles west of the project site (State Water Resources Control Board 2025).
- Sol Gap Filler Ax Z76c (Case #80000486) was listed as Indicative as of July 1, 2005. The site is approximately 3.5 miles east of the project site (DTSC 2024).

The California Integrated Waste Management Board Solid Waste Information System database (CalRecycle 2025) was also reviewed for solid waste facilities and disposal sites in the project area. There are no known solid waste or other disposal facilities listed on the project site.

The southern portion of Area G (Assessor's Parcel Number 659-080-02) is listed in the Mineral Resources Data System, which indicates mining activities were reported in 1982 and 1991. Records were requested from the DEHQ HMD on June 13, 2023. On June 15, 2023, HMD indicated no records are available for the requested address.

The SDG&E Boulevard substation adjoins the northeastern gen-tie line area to the northwest and is listed in the Resource Conservation and Recovery Act (RCRA) databases. The facility was reported as a large quantity generator of hazardous waste in May 2014. No violations were reported. On June 27, 2023, HMD provided records for the facility, which stated the following:

This site adjoins the northeastern gen-tie line area to the northwest. The records received from HMD include several Annual Carcinogen and Reproductive Toxin Reporting Lists prepared for the SDG&E facility from 2014 to 2019, which indicate the facility maintained vacuum pump fluid; “imbiber beads absorbent product;” “lead acid battery wet, filled with acid;” electro-contact cleaner; silica sands and gravel; lead and lead compounds; arsenic; and strong inorganic acid mists containing sulfuric acid. According to a March 16, 2023 Compliance Inspection Report, the facility stores electrolytic batteries, dielectric mineral oil, sulfur hexafluoride, and nitrogen gas. No violations were reported during routine compliance evaluation inspections conducted in May 2017, September 2019, and March 2023. No releases have been reported. (Michael Baker International 2023:4-15; see Appendix I)

Public and Private Airport Hazards

The nearest public airport is the Jacumba Airport, approximately 7 miles east of the project site. The Jacumba Airport Land Use Compatibility Plan (ALUCP) (Mead & Hunt 2011) is a planning document that contains policies for promoting safety and compatibility between public use airports and the surrounding communities. The ALUCP outlines Airport Influence Areas (AIAs) that relate to planning decisions to ensure public safety. The project site is outside of the AIA, per map JAC-2 in the ALUCP (Mead & Hunt 2011); see Figure 3.1.5-1.

As noted previously, there is an existing private airstrip within the project site at Assessor’s Parcel Number 612-110-17. The airstrip is located within the Jewel Valley Creek watercourse, which is a tributary of Boundary Creek. The airstrip was initially developed in the early 1990s and expanded in the mid-2000s.

Emergency Response

The project site is accessible via Jewel Valley Road and additional emergency access would be provided via Tule Jim Lane. Jewel Valley Road is paved in certain segments and is otherwise a flat, well-maintained dirt road. Tule Jim Lane is also a well-maintained dirt road. Both roads are wide enough to accommodate two-way traffic for emergency vehicles and connect to Old Highway 80 in the community of Boulevard. Each site entrance would feature a manual swing gate and a sign with a lighted directory map and contact information. All entrance gates would feature a Knox Box to allow ease of access for emergency service providers.

The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) addresses fire station travel times in its Safety Element (County of San Diego 2021), which provides fire station travel time standards for each land use designation. The majority of the project site is designated as Rural Lands 80 (RL-80), which has a travel time requirement of greater than 20 minutes Element (County of San Diego 2021: Table S-3). The generation-tie line route and San Diego Gas and Electric Company (SDG&E) Boulevard substation are designated as Semi-Rural Residential (SR-10), which has a travel time requirement of 20 minutes.

The project site, within the San Diego County Fire Protection District (SDCFPD) jurisdiction, has one fire station within a 5-minute drive time, two stations within a 10-minute drive time, and an additional station within a 15-minute drive time (see Figure 2.7-3 and Figure 2.7-4 in Section 2.7, Wildfire). SDCFPD Boulevard Station 47 is 1 mile from the project site and within a 5-minute drive time. The CAL FIRE White Star Station and the Campo Reservation Fire Protection District Station are both within 10-minute drive times, at 1.6 and 4.3 miles, respectively, and CAL FIRE Jacumba Station 43 is 5 miles from the project site with a drive time of 15 minutes. Two additional fire stations—CAL FIRE Campo Station 40 and SDCFPD Lake Morena Station 42—are just outside the 15-minute drive time but are within the 20-minute standard

for semi-rural settings. These stations are staffed for incident response with adequate apparatus and firefighting equipment. As discussed further in Appendix L, Fire Protection Plan (SWCA Environmental Consultants 2024), drive times were calculated using the ArcGIS Pro Generate Service Areas tool in the Network Analysis toolbox.

Emergency medical response cannot be separated from fire protection response services because the first responders to emergency medical responses are usually fire response units. Mercy Medical Transportation, Inc., San Diego is the contracted ambulance service provider for the project area; their closest stationed ambulance location in the project vicinity is at the Boulevard Fire Station (40080 Ribbonwood Road), approximately 0.75 mile from the project site. The Boulevard Fire Station is a partnership between the San Diego County Fire Authority (SDCFA) and CAL FIRE and serves the residents of Boulevard and those traveling in the area between Pine Valley and Jacumba on I-8 or SR 94 between Campo and Jacumba.

Emergency/Evacuation Plans

Emergency response plans include elements to maintain continuity of government, emergency functions of agencies, mobilization and application of resources, mutual aid, and public information. The *Operational Area Emergency Operations Plan* (County of San Diego 2022) is San Diego County's comprehensive emergency plan; there are also numerous stand-alone emergency plans including the *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023), described below under Local Regulations. Potential hazards or events that may trigger an emergency response action in San Diego County include earthquakes, tsunamis, floods, wildland fires, landslides, droughts, hurricanes, tropical storms, and freezes. Emergency response actions could also be triggered from a hazardous material incident, water or air pollution, a major transportation accident, water, gas, or energy shortage, an epidemic, a nuclear accident, or terrorism. Emergency routes in the project area include I-8 and major roads and highways including Old Highway 80, Tierra Del Sol Road, SR 94, and Jewel Valley Road (Figure 3.1.5-2).

3.1.5.2 Regulatory Setting

Numerous federal, state, and local regulations have been enacted to prevent or mitigate damage to public health and safety and the environment from the release or threatened release of hazardous substances into the workplace or environment, to protect human health and environmental resources from existing site contamination, and to protect human health and safety from the threat of an emergency, including fire. The regulations below are relevant to the project and the topics of hazardous substances, site contamination, and potential emergencies on the project site.

Federal Regulations

National Emission Standards for Hazardous Air Pollutants

The U.S. Environmental Protection Agency's (EPA's) National Emission Standards for Hazardous Air Pollutants requires that a thorough asbestos survey be performed prior to demolition or renovation activities that may disturb asbestos-containing materials (ACMs). This requirement may be enforced by federal, state, and local regulatory agencies, and specifies that all suspect ACMs be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities that may disturb them to prevent potential exposure to workers, building occupants, and the environment.

Resource Conservation and Recovery Act of 1976 as Amended by the Hazardous and Solid Waste Amendments of 1984

Federal hazardous waste laws are generally promulgated under RCRA. RCRA establishes a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous wastes. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions. The Hazardous Waste Management subchapter of the RCRA deals with a variety of issues regarding the management of hazardous materials including the export of hazardous waste, state programs, inspections of hazardous waste disposal facilities, enforcement, and the identification and listing of hazardous waste.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools, increased state involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, and encouraged greater citizen participation in making decisions on how sites should be cleaned up.

Chemical Accident Prevention Provisions

When Congress passed the Clean Air Act Amendments of 1990, it required the EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. These rules, which built upon existing industry codes and standards, require companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program.

Clean Water Act

Section 2.4, Hydrology and Water Quality, presents an overview of the Clean Water Act and associated stormwater pollution prevention plan (SWPPP) requirements. Relevant to the hazards discussion, the Clean Water Act Section 311(j)(1)(C) also includes the Spill Prevention, Control, and Countermeasure (SPCC) Regulation. The intent of this regulation is to prevent oil from entering navigable waters. This regulation typically applies to a total aggregate capacity of aboveground oil storage containers greater than 1,320 gallons or below ground aggregate capacity of 42,000 gallons, with certain exceptions as described in the code. The SPCC establishes procedures, methods, and equipment requirements for these regulated facilities. In addition, it requires facilities subject to the SPCC code to prepare a facility-specific response plan to be implemented in the event of an accidental spill.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations (CFR). State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and Caltrans. These agencies also govern permitting for hazardous materials transportation.

U.S. Environmental Protection Agency Risk Assessment and Regional Screening Levels

The EPA and DTSC use risk assessments to characterize the nature and magnitude of health risks to humans and ecological receptors from chemical contaminants and other stressors that may be present in the environment. The environmental risk assessments typically fall into one of two areas: Human Health and Ecological. The risk assessment evaluates the following three factors: how much of a chemical is present in an environmental medium (air, soil, and water), how much contact (exposure) a person or ecological receptor has with the contaminated environmental medium, and the inherent toxicity of the chemical.

Federal Aviation Administration Functions

The Federal Aviation Administration (FAA) has primary responsibility for the safety of civil aviation. The FAA's major functions regarding hazards include the following: (1) developing and operating a common system of air traffic control and navigation for both civil and military aircraft, (2) developing and implementing programs to control aircraft noise and other environmental effects of civil aviation, (3) regulating U.S. commercial space transportation, and (4) conducting reviews to determine that the safety of persons and property on the ground are protected. An FAA report titled *Technical Guidance for Evaluating Selected Solar Technologies on Airports* (FAA Solar Guide) was prepared to provide the FAA with procedures for reviewing solar projects (FAA 2018).

The April 2018 version updated Section 3.1.2, Reflectivity, of the FAA Solar Guide to incorporate the latest information about evaluation of solar glint and glare. The 2018 version also clarified the relationship between solar energy and the FAA's Voluntary Airport Low Emission program in Section 5.3.2 of the FAA Solar Guide and added information about the FAA's Airport Energy Efficiency Program to Section 5.3.3 of the FAA Solar Guide.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted in October 1986. EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. These concerns were triggered by the disaster in Bhopal, India, in which more than 2,000 people suffered death or serious injury from the accidental release of methyl isocyanate. To reduce the likelihood of such a disaster in the United States, Congress imposed requirements on both state and federally regulated facilities. EPCRA 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 355 Appendix A). The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. In California, SARA Title III is implemented through the California Accidental Release Prevention (CalARP) program.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Its goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Occupational and Safety Health Act also created the National Institute for Occupational Safety and Health as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA is a division of the U.S. Department of Labor that oversees the administration of the Occupational and Safety Health Act and enforces standards in all 50 states. Because California has an approved State Plan, only California Occupational Safety and Health Administration (Cal/OSHA) standards apply to the project site.

State Regulations

California Occupational Safety and Health Administration

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are required to be “as effective as” federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 California Code of Regulations [CCR] 330 et seq.). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. The employer is also required, among other things, to have an Illness and Injury Prevention Program.

California Health and Safety Code

Article 2 of Chapter 6.95 of the H&SC (Sections 25531–25543.3) requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a risk management plan. The state statutes and regulations combine federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. The incorporation of the federal and state requirements have been designated the CalARP program. CalARP requires that a risk management plan include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The risk management plan must be revised every 5 years or as necessary. The majority of facilities or businesses in the County that have prepared risk management plans are ammonia refrigeration facilities and water treatment and wastewater treatment plants that handle chlorine gas.

California Department of Public Health

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training

for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in a construction project and to perform lead-related construction work in an effective and safe manner.

California Government Code Section 65962.5(a), Cortese List

California Government Code Section 65962.5(a), also known as the Hazardous Waste and Substance Sites (Cortese) List is a planning document used by the state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Materials Business Plans

Article 1 of Chapter 6.95 of the H&SC (Sections 25500–25520) requires that any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a Hazardous Materials Business Plan (HMBP). HMBPs are intended to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs. An HMBP includes three sections: (1) an inventory of hazardous materials, including a site map, which details their location; (2) an emergency response plan; and (3) an employee training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility. HMBPs are submitted to the DEHQ HMD. The plans must be resubmitted, reviewed, revised, or amended as necessary every 3 years. The HMBP must also be amended within 30 days whenever there are changes in the amount or location of stored hazardous chemicals on a site. The HMD conducts routine inspections at businesses required to submit business plans. The purpose of these inspections is to (1) ensure compliance with existing laws and regulations concerning HMBP requirements, (2) identify existing safety hazards that could cause or contribute to an accidental spill or release, and (3) suggest preventive measures designed to minimize the risk of a spill or release of hazardous materials. After initial submission of an HMBP, the business must review and recertify the HMBP every year.

Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose “cradle-to-grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies, including the County DEHQ.

Title 23 of the California Code of Regulations, Underground Storage Tank Act

The underground storage tank monitoring and response program is required under H&SC Chapter 6.7 and Title 23 of the CCR. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning underground storage tanks. The County DEHQ is the administering agency for this program.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the CCR contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management sites for treatment, storage, or disposal. The California Integrated Waste Management Board and its certified Local Enforcement Agency regulate the operation, inspection, permitting, and oversight of maintenance activities at active and closed solid waste management sites and operations.

Accidental Release Prevention Law/CalARP

Senate Bill 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as “regulated substances,” which if involved in an accidental release could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by the California Emergency Management Agency (CalEMA) and includes response to hazardous materials incidents. CalEMA coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife (formerly California Department of Fish and Game), Regional Water Quality Control Board, San Diego Air Pollution Control District, the City of San Diego Fire Department, and County DEHQ.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state’s roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the state. This act is intended to protect health and safety by preserving the lives and property of the people of the state.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after the following occurs: (1) a local declaration of emergency; or (2) Cal EMA gives concurrence with the local declaration, or the governor issues a proclamation of a state emergency. Once the act is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

Local Regulations

Jacumba Airport Land Use Compatibility Plan

The County adopted the ALUCP for the Jacumba Airport in December 2006 and amended the plan in 2011 (Mead & Hunt 2011). ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the

safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. The Jacumba ALUCP defines an area around the airport known as AIA, which is established by factors including airport size, operations, and configuration, as well as the safety, airspace protection, noise, and over-flight impacts on the land surrounding an airport. The project site is not located within the AIA for Jacumba Airport. Therefore, the project is not subject to the restrictions applicable to the AIA.

San Diego County Department of Environmental Health, Hazardous Incident Response Team

The DEHQ Hazardous Incident Response Team (DEHQ-HIRT) is the local agency that is responsible for responding to chemically related emergencies or complaints. DEHQ-HIRT consists of 10 California State Certified Hazardous Materials Specialists. The team was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement. This team services all unincorporated San Diego County areas, 18 municipalities, two military bases, and five Native American tribal reservations. There are over 400 responses a year in the DEHQ-HIRT operational area. DEHQ-HIRT responds jointly with the San Diego Fire-Rescue Department Hazardous Incident Response Team to investigate and mitigate chemically related emergencies or complaints. Emergency response activities include mitigation, containment, control actions, hazard identification, and threat evaluation to the local population and the environment. DEHQ-HIRT is also responsible for handling all complaints after normal business hours for the DEHQ.

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023) is implemented by the County of San Diego Office of Emergency Services. It is a county-wide plan that identifies risks posed by natural and human-caused disasters and discusses ways to minimize potential damage from these disasters. The comprehensive plan is intended to enhance public understanding and awareness of potential hazardous situations, create a decision tool for managing hazards, promote compliance with state and federal program requirements, enhance local policies for hazard mitigation capability, provide inter-jurisdictional coordination, and achieve regulatory compliance (County of San Diego 2023).

Operational Area Emergency Operations Plan

The *Operational Area Emergency Operations Plan* (County of San Diego 2022) is a comprehensive emergency plan that defines responsibilities, establishes an emergency organization, defines lines of communications, and is designed to be part of the statewide Standardized Emergency Management System. The plan provides guidance for emergency planning and requires subsequent plans to be established by each jurisdiction that has responsibilities in a disaster situation. The *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2023), described above, includes an overview and discussion of the risk assessment process, hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives, and actions for each jurisdiction in the county, including all cities and unincorporated areas.

San Diego County General Plan

Updated and adopted in August 2011, the *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011a) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. In the General Plan, the Conservation and Open Space, Land Use, and Safety Elements are relevant to emergencies, hazards, and hazardous materials.

The following policies of the Conservation and Open Space Element are applicable to the proposed project (County of San Diego 2011b):

- **COS-18.2 Energy Generation from Waste.** Encourage use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG [greenhouse gas] emissions from waste disposal or management sites.
- **COS-18.3 Alternate Energy Systems Impacts.** Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

The following policies of the Land Use Element (County of San Diego 2011c) are applicable to the proposed project:

- **LU-6.10 Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.
- **LU-12.1 Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.

The following policies of the Safety Element (County of San Diego 2021) are applicable to the proposed project:

- **S-2.2 Evacuation Impediments.** Advise, and where appropriate, require all new developments to help eliminate impediments to evacuation within existing community plan areas, where limited ingress/egress conditions could impede evacuation events.
- **S-2.3 Community Plan Evacuation.** Identify community plan areas that have reduced or limited circulation access and develop an evacuation plan, including an Evacuation Traffic Management Plan and recommended improvements to ensure adequate evacuation capabilities. Community Evacuation Plans should be evaluated and revised to address changes in at-risk areas and populations to ensure effectiveness.
- **S-2.5 Existing Development within Hazard Zones.** Implement warning systems and evacuation plans for developed areas located within known hazard areas (i.e., flood, wildfire, earthquake, other hazards).
- **S-2.6 Effective Emergency Evacuation Programs.** Develop, implement, and maintain an effective evacuation program for areas of risk in the event of a natural or human-caused disaster.
- **S-2.7 Evacuation Access.** All development proposals are required to identify evacuation routes at the Community Plan level and identify and facilitate the establishment of new routes needed to ensure effective evacuation. Evacuation routes should be incorporated into existing Community Wildfire Protection Plans where available.
- **S-4.4 Service Availability.** Plan for development where fire and emergency services are available or planned.
- **S-8.3 Land Use Location.** Prohibit high occupancy uses, essential public facilities, and uses that permit significant amounts of hazardous materials within Alquist-Priolo and County special studies zones.
- **S-9.3 Evacuation Route Risk.** Identify and propose mitigation actions for evacuation routes located in close proximity to active or potential landslide zones.

- **S-10.8 Evacuation Route Development.** Identify secondary evacuation routes in Community Plan areas that are susceptible to flood-related impacts to ensure adequate evacuation access is available.
- **S-13.1 Land Use Location.** Require that land uses involving the storage, transfer, or processing of hazardous materials be located and designed to minimize risk and comply with all applicable hazardous materials regulations.
- **S-13.3 Hazards Sensitive Uses.** Require that land uses using hazardous materials be located and designed to ensure sensitive uses, such as schools, hospitals, day care centers, and residential neighborhoods, are protected. Similarly, avoid locating sensitive uses near established hazardous materials users or High Impact Industrial areas where incompatibilities would result.
- **S-13.4 Contaminated Lands.** Require areas of known or suspected contamination to be assessed prior to reuse. The reuse shall be in a manner that is compatible with the nature of the contamination and subsequent remediation efforts.
- **S-13.5 Development Adjacent to Agricultural Operations.** Require development adjacent to existing agricultural operations in Semi-Rural and Rural Lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used.
- **S-16.1 Vehicular Access to Development.** Require development to provide vehicular connections that reduce response times and facilitate access for law enforcement personnel, whenever feasible.
- **S-17.4 Hazardous Obstructions within Airport Approach and Departure.** Restrict development of potentially hazardous obstructions or other hazards to flight located within airport approach and departure areas or known flight patterns and discourage uses that may impact airport operations or do not meet Federal or State aviation standards.

Mountain Empire Subregional Plan

The *Mountain Empire Subregional Plan, San Diego County General Plan* (County of San Diego 2016) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance. The plan has been reviewed related to the focus of this section of the EIR; there are no service-related policies or objectives that would apply to the project in this plan.

Boulevard Subregional Planning Area Community Plan

The *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (County of San Diego 2013) provides specific policy guidance for over 55,000 acres, which includes the communities of Boulevard, Live Oak Springs, and Tierra del Sol. The following goals and policies are relevant to hazards or hazardous materials and applicable to the proposed project:

- **Goal S 1.1.** Adequate law enforcement and emergency services and staffing to ensure timely response times and safe and secure environment for residents and visitors alike.
- **Policy S 1.1.1.** Seek funding opportunities for year-round staffing of the Cal-Fire and Boulevard Fire and Rescue Department.
- **Policy LU 1.1.6.** Require landscaping in new development to emphasize the use of xeriscape design with native, drought-tolerant, and fire-resistant plants to conserve water resources and help prevent the spread of fire.
- **Goal S 2.1.** Adequate emergency supplies and equipment to provide shelter and comfort during disasters and emergency situations.

- **Policy S 2.1.1.** Seek funding opportunities and sponsors to secure emergency supplies and equipment, including emergency generators and adequate and safe fuel storage.
- **Policy CM 3.1.1.** Require secondary fire access/egress routes to connect to a public road, when feasible.

3.1.5.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

For the purpose of this EIR, the following County guidelines for determining significance apply to both the direct impact analysis and the cumulative impact analysis:

- *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a)
- *Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b)
- *Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c)

An affirmative response to, or confirmation of, any one of the following guidelines will generally be considered a significant impact related to hazards and hazardous materials as a result of the project, in the absence of evidence to the contrary:

Hazardous Substance Handling

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP [risk management plan] requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility. (County of San Diego 2007a:20)

Existing On-site Contamination

- The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.519 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

- The project is proposed on or within 1,000 feet of a FUDS [Formerly Used Defense Site] and it has been determined that it is probable that munitions or other hazards are located onsite that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRG's [preliminary remediation goals], Cal/EPA CHHSL's [California Human Health Screening Levels], or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial or residential structures that may contain ACM, LBP [lead-based paint] and/or other hazardous materials and as a result, the project would represent a significant hazard to the public or the environment. (County of San Diego 2007a:21–22)

Landfill and Burn Hazards

- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

Airport Hazards

- The project is located within an established AIA for a public or public use airport and proposes a development intensity, flight obstruction, or other land use that conflicts with the ALUCP or CLUP [Comprehensive Land Use Plan] (if no ALUCP is adopted) and as a result, the project may result in a significant airport hazard. (County of San Diego 2007b:12)

Emergency Response Plans

- The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
 - Hospital
 - School
 - Skilled nursing facility
 - Retirement home
 - Mental health care facility
 - Care facility with patients that have disabilities
 - Adult and childcare facility
 - Jails/detention facility
 - Stadium, arena, amphitheater
 - Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure
- The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response. (County of San Diego 2007c:7–8)

Additionally, the following guiding question from Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) applies to both the direct impact analysis and the cumulative impact analysis. A significant impact would result if the effects exceed the significance criteria described below:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Hazardous Substance Handling

Guidelines for the Determination of Significance

A significant impact related to hazardous substance handling would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a:20):

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC, and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP risk management plan requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one quarter mile of the facility.

Analysis

During construction, operation and maintenance, and decommissioning of the project, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the project site. As described in Section 3.1.5.2 Regulatory Setting, federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. The project site would include the use and storage of limited quantities of lubricants and cleaners potentially covered under H&SC Chapter 6.5, which would be used to maintain the on-site equipment and facilities. Storage and handling of any materials covered under Chapter 6.95 of the H&SC would be undertaken in accordance with all applicable regulations. The project would not include any other on-site storage, use, or transport of hazardous materials as a part of normal operations in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of substances classified as hazardous materials, which would necessitate the need to develop an HMBP in accordance with Chapter 6.95 of the H&SC, Division 20. No underground storage tanks are proposed as a part of the project. The project would comply with all applicable regulations governing the use of hazardous substances during construction.

The project includes a battery energy storage system (BESS) that would store up to 217.4 megawatts of electricity for dispatch into the local SDG&E grid. The BESS would consist of individual batteries in cabinets, which are 6 feet wide, 5.5 feet deep, and 8 feet tall. The batteries would be double-loaded along a 70-foot-long concrete skid. In addition, a battery conversion system would be constructed within the BESS, which would be 8 feet wide, 20 feet deep, and 9.5 feet tall. The conversion system would be constructed on a concrete skid measuring 20 feet long × 12 feet wide. Each storage cabinet will be completely outdoor accessible (with no internal access).

Each steel container would hold rechargeable lithium iron phosphate or similar safety battery packs on racks throughout a metal frame storage cabinet. As project design is refined, the battery system may be included in the HMBP in accordance with Chapter 6.95 of the H&SC, Division 20. The primary hazards associated with lithium iron phosphate batteries are overheating and fire caused by thermal runaway.

Thermal runaway is a temperature-triggered process that produces heat faster than the battery can cool, thus leading to temperature increases that can eventually lead to a fire.

The battery storage cabinets would be constructed on concrete pads, with cabinets bolted to the pads. Each battery storage cabinet would be insulated, air conditioned, and include fire suppression, with separate enclosures for the electronic controls, inverters, and rectifiers. There would be a built-in heat detection and fire protection system and an aerosol fire extinguishing system. The heat and fire detection system would be linked to an automatic inert gas suppression system within each cabinet. The National Fire Protection Association (NFPA) has developed NFPA 855, Standard for the Installation of Stationary Energy Storage Systems (NFPA 2023). This standard addresses the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary energy storage systems. The system would be designed in accordance with applicable NFPA safety standards. The cabinets would be situated to enable emergency response access. The cabinets would be sited with a setback from off-site areas as a buffer against potential wildfire ignitions. The cabinets would not be walk-in containers; thus, the battery storage cabinets would be non-habitable structures per the state and local fire codes that are in place at the time a building permit application would be submitted to the County. The system would also be designed in accordance with, and would satisfy all requirements of, the California Fire Code (CFC) and San Diego County Fire Department *Interim Fire Protection Guidelines for BESS Facilities*, as well as meet other applicable state and local requirements.

As the final selection of the lithium iron phosphate-based energy storage system technology remains in process, several preliminary studies (based upon an assumed technology) that are typically required for the completion of a CFC Section 1207.1.4, Hazard Mitigation Analysis, have been prepared for the proposed project and included in this EIR as the following appendices:

- Appendix O.1 Preliminary Battery Energy Storage System Fire Risk Assessment and Heat Flux Analysis
- Appendix O.2 Preliminary Battery Energy Storage System Failure Mode and Effects Analysis
- Appendix O.3 Preliminary Balance of Plant Fire Risk Assessment
- Appendix O.4 Preliminary Balance of Plant Failure Mode and Effects Analysis
- Appendix O.5 Preliminary Balance of Plant Hazard Mitigation Analysis
- Appendix O.6 Preliminary First Responders Guide
- Appendix O.7 Battery Energy Storage System Plume Study (Hazard Dynamics 2026)

These preliminary analyses address the BESS and other components of the solar energy facility (referred to above as the “balance of plant”). These analyses will be finalized and updated when the BESS technology is selected and as part of the Construction Authorization Submittal.

The project site is not located within 0.25 mile of an existing or proposed school. The nearest school is Clover Flat Elementary School, located approximately 0.75 mile northwest of the project site. Based on the analysis provided, the project would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not produce hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. The project would comply with all applicable regulations, including CalARP, NFPA, CFC, and Chapter 6.5 of the H&SC. Therefore, **impacts would be less than significant.**

On-Site Contamination

Guidelines for the Determination of Significance

A significant impact related to existing on-site contamination would result if the effects of the project exceed the significance criteria described below in the County's *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a):

- The project is located on or within one quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
- The project is proposed on or within 1,000 feet of a Formerly Used Defense Site (FUDS) and it has been determined that it is probable that munitions or other hazards are located on site that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRGs, CalEPA CHHSLs, or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial or residential structures that may contain ACM, lead-based paint and/or other hazardous building materials and as a result, the project would represent a significant hazard to the public or the environment.

Analysis

No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the project site (see Appendix I). The project site has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases. No portion of the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or within 1,000 feet of a FUDS and would not create a significant hazard (see Appendix I). Sites identified in the EnviroStor and GeoTracker databases are discussed above in Section 3.1.5.1, Existing Conditions; none are located on the project site. Other Cortese List sites were not identified on or within 1 mile of the project site. The project site also does not contain contaminated soils or groundwater that would result in human or environmental exposure. Therefore, impacts related to on-site contamination would be **less than significant**.

Construction of the project would not include demolition of any existing structures on the project site. Therefore, there would be no hazardous materials (asbestos, mercury, LBP, etc.) encountered during site development and demolition activities that would pose a risk to humans.

During decommissioning, the aboveground (detachable) equipment and structures would be disassembled and removed from the site when it became time to remove or replace equipment. Detachable elements include all photovoltaic modules and support structures, battery storage units, inverters, transformers, and associated controllers. Removal of the fencing, substation, and aboveground conductors on the transmission facilities would also be implemented. Underground collector and transmission components would be removed. Materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of off-site, consistent with the County's Construction and Demolition Materials Diversion Program (County of San Diego Code of Regulatory Ordinances Sections 68.508–68.518). Project decommissioning would comply with Section 6954.b.3 (d) of the County of San Diego Zoning Ordinance for removal surety as follows:

The operator shall provide security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to PDS [Planning and Development Services] prior to building permit issuance. Once the Solar Energy System has been removed from the property pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System.

Therefore, the impact related to demolition of hazardous materials-containing structures would be **less than significant**.

Landfill and Burn Hazards

Guidelines for the Determination of Significance

A significant impact related to landfill and burn hazards would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Hazardous Materials and Existing Contamination* (County of San Diego 2007a):

- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

Analysis

The project site is not within 1,000 feet of an open, abandoned, or closed landfill. Per the Phase I Environmental Site Assessment, no indication of on-site solid waste disposal practices (i.e., landfills) was apparent during the site inspection, and the project does not propose structures for human occupancy. The Phase I Environmental Site Assessment confirmed that the project is not on or within 250 feet of a parcel containing burn ash. Therefore, **no impact would occur** related to landfill and burn hazards.

Airport Hazards

Guidelines for the Determination of Significance

A significant impact related to airport hazards would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Airport Hazards* (County of San Diego 2007b):

- The project is located within an established AIA for a public or public use airport and proposes a development intensity, flight obstruction, or other land use that conflicts with the ALUCP or CLUP (if no ALUCP is adopted) and as a result, the project may result in a significant airport hazard.
- The project is located within 2 miles of a public or public use airport or within 1 mile of a private airport, and proposes any of the following:
 - Residential densities inconsistent with the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Maximum Residential Density and as a result, the project may result in a significant airport hazard.

- Non-residential land uses that exceed the California Airport Land Use Planning Handbooks Safety Compatibility Criteria Guidelines for Maximum Non-Residential Intensity and as a result, the project may result in a significant airport hazard.
- An incompatible use identified in the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Safety Compatibility Zones – Prohibited Uses and as a result, the project may result in a significant airport hazard.

Analysis

The project site is not located within an airport land use plan or within 2 miles of a public use airport. The closest public airport is the Jacumba airport, over 7 miles east of the project site. The private Empire Ranch Airport, owned by the project Applicant, bisects the site and is located between the proposed solar areas at Empire Ranch. The airstrip is no longer in use. The project would not propose an incompatible residential or non-residential use. Therefore, impacts related to airport hazards would be **less than significant**.

Emergency Response Plans

Guidelines for the Determination of Significance

A significant impact related to emergency response plans would result if the effects of the project exceed the significance criteria described below in *Guidelines for Determining Significance – Emergency Response Plans* (County of San Diego 2007c):

- The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
 - Hospital
 - School
 - Skilled nursing facility
 - Retirement home
 - Mental health care facility
 - Care facility with patients that have disabilities
 - Adult and childcare facility
 - Jails/detention facility
 - Stadium, arena, amphitheater
 - Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure
- The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

Analysis

Dam Inundation Zones

The project consists of a solar facility, BESS, and associated infrastructure, and would be unstaffed during operation. The project would not involve concentrations of people that could be exposed to death in the event of a dam failure. Further, as discussed in Section 2.4, Hydrology and Water Quality, the project site

is not located in a dam inundation zone. Therefore, the project would not conflict with an emergency response plan related to siting unique institutions in a dam inundation zone and would have **no impact**.

Hazards to Emergency Response Aircraft

Structures or towers that are placed along ridgelines where no structures or towers of similar height already exist could present safety concerns for emergency response aircraft and could increase the risks associated with aviation activities for emergency response. The project would not construct structures over 100 feet in height. The project would construct an approximately 3-acre substation that would be located near the northeastern portion of the project site. The substation equipment would use earth-toned coloring and the tallest equipment within substation boundaries would have a maximum height of 50 feet. A gen-tie line from the on-site substation would cross Tule Jim Lane with a short overhead section (two 50-foot-high steel poles) and continue underground to the Boulevard substation. These structures would not be located on a ridgeline and would be close to the existing Boulevard substation and other poles and towers with similar heights. Therefore, the project would not construct structures 100 feet or greater in height that could cause hazards to emergency response aircraft. The project would not interfere with aircraft emergency response; impacts would be **less than significant**.

3.1.5.4 Cumulative Impact Analysis

Cumulative, Hazardous Substance Handling

Compliance with applicable laws and regulations would reduce the risk of an accidental release of a hazardous material, and the use of hazardous materials on the solar facility site for their intended purpose is not expected to pose a hazard to the public or environment. The cumulative projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting, would also be subject to all applicable laws and regulations governing the use, storage, and disposal of hazardous materials.

Other cumulative projects, including each of those listed in Table 1-4 (see Chapter 1.0), would be required to survey for potential areas of hazardous contamination and, if such areas were found, would be required to manage contaminated areas in accordance with applicable federal, state, and local regulations whereas to not impact nearby areas. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous sites contamination.

Additionally, as stated previously, during construction, operation and maintenance, and demolition of the project, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the sites. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such hazardous materials. Compliance with applicable laws and regulations would reduce the risk of an accidental release of a hazardous material, and the use of hazardous materials on the project site for their intended purpose is not expected to pose a hazard to the public or environment. The cumulative projects listed in Table 1-4 (see Chapter 1.0) would also be subject to all applicable laws and regulations governing the use, storage, and disposal of hazardous materials.

Other renewable energy projects in the area pose similar risks associated with handling, use, transportation, storage, and disposal of hazardous materials as the project. The project, as with all other cumulative projects, would comply with applicable laws and regulations intended to minimize the risk and threat to public health from the accidental release of hazardous materials. With adherence to all applicable laws, the risk of an accidental release of a hazardous material from the project and cumulative projects would not pose a hazard to the public or environment and **would not result in a cumulatively considerable impact**.

The project is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP risk management plan requirements (per 19 CCR Division 2, Chapter 4.5). The nearest school is Clover Flat Elementary School, located approximately 0.75-mile northwest of the project site. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to emissions of regulated substances subject to CalARP risk management plan requirements.

No demolition of hazardous material-containing structures is proposed. The projects in the nearby area have the potential to contain buildings with asbestos that may be demolished. In accordance with Cal/OSHA, California Department of Public Health, and San Diego County Air Pollution Control District, the removal of these materials by a certified abatement contractor is required, reducing potential impacts below levels of significance. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous materials as a result of demolition of on-site structures.

Cumulative, On-Site Contamination

As previously discussed, no existing hazardous materials, RECs, or evidence of soil contamination are present on the project site. The project site is not located on a hazardous material site listed under Government Code Section 65962.5 or a FUDS site, and there are no impacts on-site from nearby sites. Therefore, the project would not result in exposure to contaminated soils or groundwater exceeding federal or state screening levels. Cumulative projects would be required to identify any hazardous sites or potentially hazardous existing contamination, which would be handled on a project-by-project basis. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to hazardous sites.

Cumulative, Landfill Hazards

The project would not develop structures for human occupancy within 1,000 feet of an open, abandoned, or closed landfill or within 250 feet of the boundary of a parcel identified as containing burn ash. No evidence suggests that the project site has been used for historic waste disposal or burning of trash. Cumulative projects would be required to identify any landfill hazards and comply with any applicable laws. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** related to landfill hazards.

Cumulative, Airport Hazards

Cumulative projects would be required to ensure that airport and aircraft safety is provided, with FAA notifications as necessary. Where potential hazards are identified, projects would be modified or required to include markings and/or lighting. While several of the cumulative projects are located within the Jacumba AIA, the proposed project is located outside the Jacumba AIA, approximately 7 miles west of the Jacumba Airport. With compliance with FAA regulations through Form 7460-1, the cumulative projects would not result in any safety hazard impact associated with air traffic in the area and would not result in excessive noise for people working in the area. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** associated with airport hazards.

Cumulative, Emergency Response Plans

Cumulative projects in the area would have the potential to impair existing emergency and evacuation plans during construction, operation, and decommissioning. This could occur from any of the following: (1) an increase in population that is induced from cumulative projects which are unaccounted for in emergency plans; (2) an increase in population that emergency response teams are unable to service

adequately in the event of a disaster; or (3) evacuation route impairment if multiple development projects concurrently block multiple evacuation or access roads, such as during construction, resulting in impaired emergency response times. For emergency response, the cumulative study area would be the SDCFA and CAL FIRE jurisdictional boundaries. Other projects would be evaluated to ensure project implementation does not block evacuation or access roads during construction, operation, or decommissioning. Thus, the project in combination with cumulative projects, **would not result in a cumulatively considerable impact** regarding interference with emergency responses.

3.1.5.5 Conclusion

The project would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not handle regulated substances within 0.25 mile of an existing or proposed school or daycare facility. No demolition of hazardous material-containing structures is proposed. The project would comply with all applicable regulations, including CalARP and Chapter 6.5 of the H&SC. All other elements of the project would also comply with all applicable federal, state, and local laws and regulations regarding hazards and hazardous materials. Impacts related to hazards and hazardous materials would be **less than significant**.

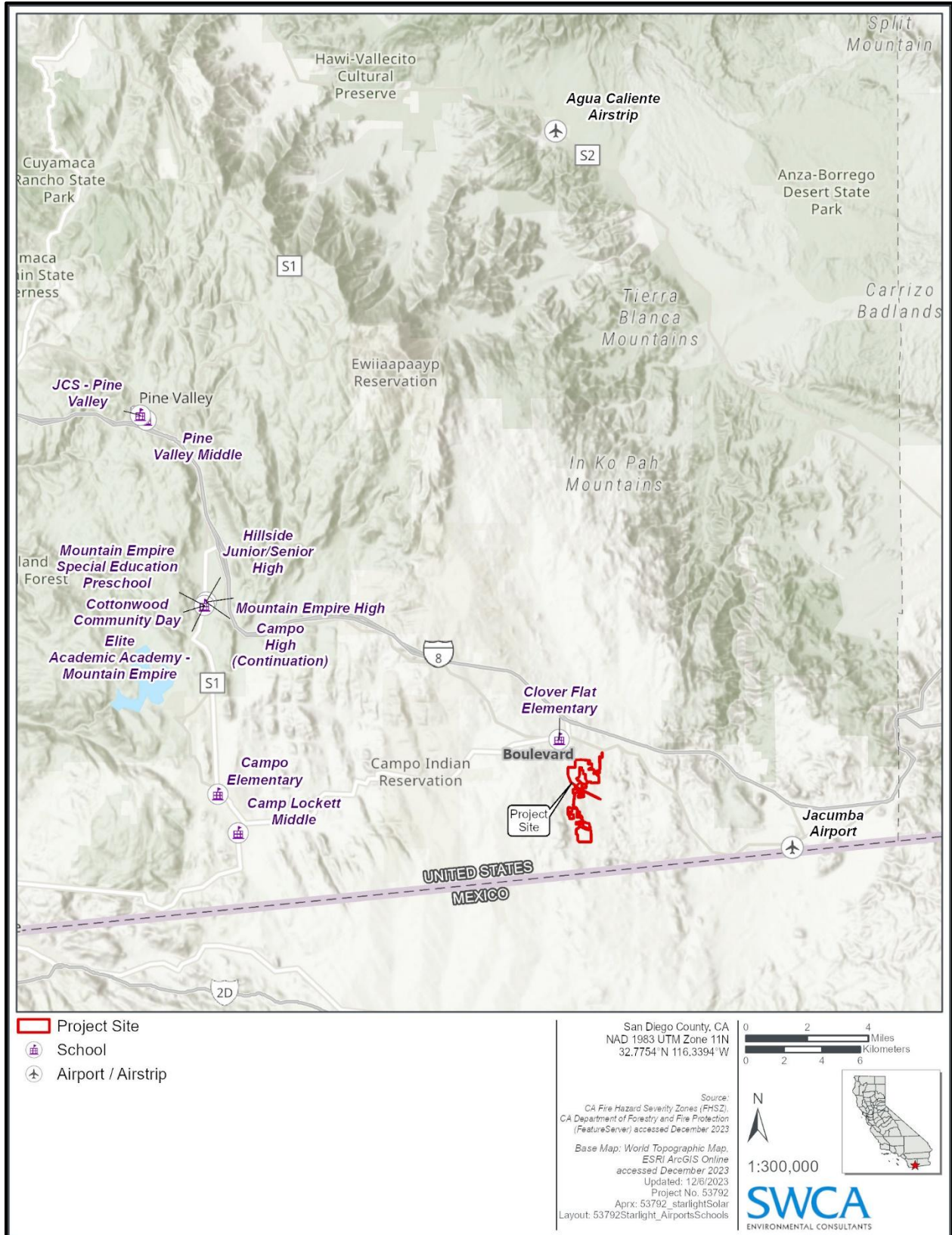


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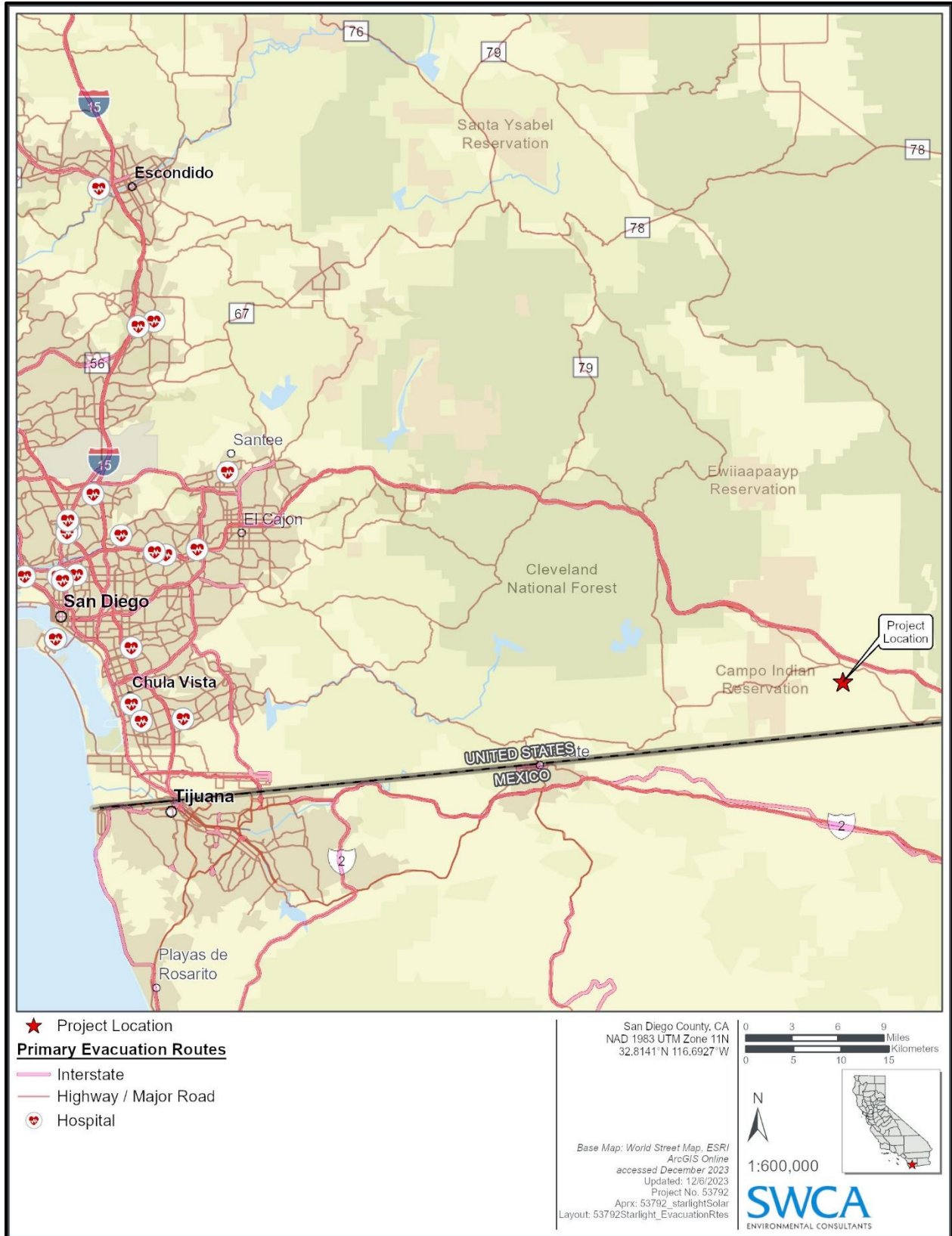


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