

2.6 Hazards and Hazardous Materials

This section discusses potential impacts relating to hazards and hazardous materials resulting from implementation of the JVR Energy Park Project (Proposed Project). The analysis is based on the review of existing resources; technical data; applicable laws, regulations, and guidelines; and the following technical reports prepared for the Proposed Project in conformance with the County of San Diego's Guidelines for Determining Significance (County of San Diego 2007a, 2007b, 2010a) and other applicable standards:

- Phase I Environmental Site Assessments for JVR Energy Park (Appendix G)
- Asbestos Building Inspection and Lead-Based Paint Testing For JVR Energy Park (Appendix H)
- Visual Resources Report for the JVR Energy Park (Appendix B)
- Fire Protection Plan for the JVR Energy Park (Appendix N)
- Construction Fire Protection Plan for the JVR Energy Park (Appendix A to Appendix N)

Comments received in response to the Notice of Preparation (NOP) included concerns regarding glint and glare impacts to motorists on Interstate (I) 8, consistency with the Airport Land Use Consistency Plan for Jacumba Airport, impacts to emergency response and evacuation plans, potential fire hazards, and the potential rise in temperature in the area due to the proposed solar facility. These concerns are addressed in this section of this Environmental Impact Report (EIR) and in Section 2.11, Wildfire. A copy of the NOP and comment letters received in response to the NOP is included in Appendix A 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 discussion of airports examines existing airport facilities and potential operational hazards within San Diego County, and specifically within the Project area. The discussion of emergency response and evacuation plans identifies operations and plans that exist to protect lives and property in the event of a disaster within San Diego County. 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 2.11, Wildfire. The Proposed Project's impacts on fire protection services is also covered under Section 3.1.7, Public Services.

2.6.1 Existing Conditions

Regional Overview

The Project site, as defined in Chapter 1, Project Description, totals approximately 1,356 acres in unincorporated southeastern San Diego County. The Project site is located to the south of I-8 and immediately north of the U.S./Mexico international border, which previously included dairy and agricultural operations. The Proposed Project would be located entirely on private land consisting of 24 parcels. The proposed solar facility would cover approximately 643 acres of the 1,356-acre Project site (shown in Figure 1-1, Project Location, in Chapter 1 of this EIR). The topography of the site varies, containing gentle slopes and steeper hillslopes along the western and eastern sides. The elevation range within the study area is from 2,720 feet to 3,360 feet above mean sea level.

Regional access to the Project site is provided by I-8, located to the north, and by Old Highway 80 which traverses the southern portion of the Project site. Both I-8 and Old Highway 80 are designated as County of San Diego (County) Scenic Highways within this area. Adjacent and nearby land uses to the Project site include the community of Jacumba Hot Springs, an airport, and undeveloped land. The Jacumba Airport is located immediately to the east of the southern portion of the Project site. The southern boundary of the Project site is located along the U.S./Mexico border. The San Diego Arizona and Eastern Railroad transects the western section of the Project site. Public land in the surrounding area includes Anza-Borrego Desert State Park and federal Bureau of Land Management's lands. The Project site is located within the Jacumba Subregional Group Area of the County's Mountain Empire Subregional Plan Area. The unincorporated community of Jacumba Hot Springs, located immediately west of the Project site, lies between Old Highway 80 and the San Diego Arizona and Eastern Railroad bed. The Jacumba Hot Springs 2010 Census population was 561. The community includes residential and commercial uses, including a hot springs resort. Jacumba Hot Springs and the surrounding area are totally dependent on groundwater for water supply. The Jacumba Community Services District provides groundwater to the Jacumba Hot Springs area.

Hazardous Materials

Hazardous materials may be encountered during construction activities. 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.

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. Phase I Environmental Site Assessments (ESAs) have been prepared for the Project site (Appendix G). In January 2018, Dudek prepared a Phase I ESA which included the majority of the Project site. Subsequently in August 2018, Dudek prepared a Phase I ESA for additional parcels (Landman property) within the Project site. Both of these Phase I ESAs are included in Appendix G. The Phase I ESAs include a history of the site 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.

Based on the review of available sources, portions of the Project site were used as agricultural land from at least 1953 to before 1980, then again from at least 2002 through at least 2012. Between these periods, the agricultural land appeared fallow and unused based on a review of historic aerial photographs. A dairy complex located at 45346 Old Highway 80 (Assessor's Parcel Number [APN] 661-060-12) also operated on the Project site from 1927 to the early 1960s (see Appendix D, Historic Resources Report, of Appendix E, Cultural Resources Report). A sand mine or gravel pit operated in the northern portion of the Project site from at least 1959 to approximately 2014. A second gravel pit operated in the northeastern portion of the Project site from at least 1975 until at least 1997. A large wood-dumping area was present south of the dry wash from at least 2002 until at least December 2017.

Historic Uses of Hazardous Concern

Agricultural Uses: Portions of the Project site were historically used for agricultural purposes. The use of pesticides and herbicides, either recently or historically, is not entirely known. There is record of organophosphate insecticide use on a portion of the Project site between April 2011 and October 2011. Based on the long history of agricultural use and the documented period of insecticide use, it is assumed that other pesticides and herbicides were used. As with many agricultural properties, there is a potential for pesticide residues, including chlorinated compounds and metals, to remain in the soil. As pesticides break down over time, it is likely that concentrations of residual compounds, if present, are below risk-based criteria for the proposed solar energy facility use of the property.

Off-Site Sources: Based on the review of regulatory agency records and environmental conditions of the Project site, it is unlikely that off-site sources would impact the Proposed Project. Two nearby gasoline stations, located less than 0.25 miles away were listed in the Leaking Underground Storage Tank (LUST) database (see Table 2.6-1); however, these cases have been closed since the 1990s. Reportedly, groundwater contamination remains beneath the gasoline station site above regulatory cleanup guidelines, but the soil types in the area have allowed vertical downward migration with little lateral migration of the contaminated groundwater. The regulatory agency closed the file based on no impacts observed in nearby groundwater wells, and the assumption of natural attenuation of the contamination over the next several decades (County of San Diego 2012). As the gasoline station is adjacent to the Project site, there is a possibility that contaminated groundwater may migrate beneath the Project site. Given that the local depth to water is at least 40 feet below ground surface (bgs) on the northern portion of the Project site, it is not expected that this contaminated groundwater would be encountered during construction or operation of the Proposed Project. It is also not expected that, due to the depth to groundwater, vapor intrusion due to potential impacts to groundwater would become an issue if contaminants migrated onto the Project site.

Residential Use: The area specifically used as the former Mountain Meadow Dairy and Sunshine Ranch (45346 Old Highway 80) contains 20 existent buildings and structures constructed more than 45 years ago and in various states of disrepair. Four of the structures have been identified as dwellings (Historical Resources Technical Report, Appendix D to Appendix E). The Project site is not currently being used as a residence. Residential structures built prior to 1980 have a high potential to contain lead-based paint and/or asbestos-containing materials (ACM). An Asbestos Building Inspection and Lead-Based Paint Testing report was completed on the former ranch by Aurora Industrial Hygiene in November 2018 (Appendix H). Multiple compounds were found to contain greater than 1% asbestos in multiple structures, and in some of the debris piles located on the Project site. Numerous surfaces were found to contain greater than 1.0 milligram per square centimeter lead in multiple structures on the ranch.

Debris: Various debris piles have been documented on the Project site. The documented debris consists of wood, scrap metal, concrete, PVC, crushed asphalt, I-beams, steel drums, farming equipment, buried trash, tires, cement, and a metal watering trough (Appendix G; Appendix H). As discussed above, some of the debris was found to contain asbestos (Appendix H).

Existing Uses

The central portion of the Project site is relatively flat and primarily fallow agricultural land. The northwestern portion of the Project site is undeveloped, featuring hills and extending onto the east portion of Round Mountain. The northeastern portion of the Project site is undeveloped land, bordered by two gas stations. The former dairy complex and ranch is located in the southeastern portion of the Project site. Thirteen wells were documented on the Project site, two of which are

production wells (Appendix J, Groundwater Investigation Report). Three power transmission lines run east–west through the central portion of the Project site. The San Diego Arizona and Eastern Railroad extends along the western portion of the Project site. The railroad turns west toward the community of Jacumba Hot Springs approximately 0.5 miles north of Old Highway 80. There are multiple abandoned buildings on the southeastern portion of the Project site associated with the former dairy complex and ranch. Chemical storage and aboveground storage tanks (ASTs) were documented on the ranch portion of the Project site, including small containers (55 gallons or less) of oil, aerosol cans, wood stain, and fungicide, a propane tank, and a large oval-shaped metal AST, the contents of which are not known (Appendix G).

Environmental Database Records

A Phase I ESA was prepared for most of the Project site in January 2018. Subsequently, a Phase I ESA was prepared for a 58-acre portion known as the Landman property in August 2018. Both Phase I ESAs are included in Appendix G. As part of these Phase I ESA site investigations, regulatory database searches were conducted per ASTM Standard E1527-13, which includes Cortese List databases per Government Code 65962.5. The Project site was listed in one federal regulatory database searched, the Facility Index System/Facility Registry Service (FINDS/FRS). Five additional FINDS/FRS sites were found within approximately 0.02 miles of the Project site, including gas stations, a substation, and an auto repair shop. The Project site was listed in the State regulatory databases HAZNET and SANDIEGO HAZ. These databases are used for regulatory compliance and permitting purposes, and do not directly indicate a release of hazardous substances to the environment. The listings relate to a heavy equipment maintenance company, Bornt & Sons Inc., and a listing called 2 Heavy Equipment, that previously operated on the Project site at 45346 Old Highway 80. The site managed and stored hazardous wastes and materials associated with operations, but no violations or releases were noted.

Online Databases: Available online databases that provide environmental information on facilities and sites in the State of California were consulted. Table 2.6-1 provides a summary of the databases that were searched on March 22, 2019.

The California Environmental Protection Agency (CalEPA) database listed three sites in addition to those identified in the Phase I ESA reports (Appendix G). Listings for the Jacumba Solar Energy Project and San Diego Gas & Electric Pole Replacements Project were identified in the database¹ approximately 0.17 miles west and 0.15 miles north, respectively, of the Project site. The sites are listed as a Wetlands Fill and Dredge project, which does not indicate a release of hazardous materials to the environment. The Oak Glen Disposal site was also identified within a 1-mile radius

¹ The georeferenced location on the database does not appear to be the exact project location for the Jacumba Solar Energy Project. Rather, it is a general location for Jacumba Hot Springs, California, as no address was provided in the database listing.

of the Project site. However, based on the address and further online georeferencing, the site is actually located greater than 10 miles north of the Project site.

The Regional Water Quality Control Board (RWQCB) database listed the “Jacumba I & II” burn dump sites, located at 1000 Old Highway 80, on the Project site. Further mapping of the associated APNs (661-030-03 and 661-070-08) confirmed the dump site is not on the Project site, but rather located approximately 0.40 miles east of the Project site.

No additional sites were identified in the online databases within a 1-mile radius of the Project site beyond those identified in the Phase I ESA reports (Appendix G). No pipelines or associated features were identified on the National Pipeline Mapping System (NPMS) database within a 1-mile radius of the Project site.

Cortese List: Government Code Section 65962.5(a) requires CalEPA to compile a list of hazardous waste and substances sites (Cortese List). While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database (Health and Safety Codes 25220, 25242, 25356, and 116395).
2. List of Open, Active LUST Sites by County and Fiscal Year from the RWQCB GeoTracker database (Health and Safety Code 25295).
3. List of solid waste disposal sites identified by the RWQCB with waste constituents above hazardous waste levels outside the waste management unit (Water Code Section 13273 subdivision [e] and California Code of Regulations Title 14 Section 18051).
4. List of “active” Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the Water Board (Water Code Sections 13301 and 13304).
5. List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

Sites identified in the EnviroStor and GeoTracker databases are discussed above; none are located on or are expected to impact the Proposed Project. Other Cortese list sites were not identified on or within 1 mile of the Project site.

Public and Private Airport Hazards

The nearest registered airport is the Jacumba Airport, which is located adjacent to the Project site to the southeast. The Project site is located within the Airport Influence Area (AIA) of the Jacumba Airport Land Use Compatibility Plan (ALUCP) (San Diego County 2011a). The Jacumba Airport is unattended and unlighted and is mainly used as a glider facility by single-engine aircraft and

sailplanes, with activity predominately occurring during weekends in non-summer months (County of San Diego 2019). The AIA (noise, safety, airspace protection, and overflight) overlap the Project site. There are no active private airstrips within the vicinity of the Project site.

Schools

The Project site is not located within 0.25 miles of an existing or proposed school. The nearest school is Jacumba Elementary School, located approximately 0.36 miles west of the Project site. This school is permanently closed.

Emergency Response

The Project site is located within the County's responsibility area. Emergency response for the Proposed Project would be provided, initially, by the County and/or the California Department of Forestry and Fire Protection (CAL FIRE) from the County's Fire Station 43 in Jacumba Hot Springs. Fire Station 43 is located at 1255 Jacumba Street and is staffed with two CAL FIRE firefighters (one firefighter and one company officer) on a Type 1 fire engine under a Cooperative Fire Protection Agreement with CAL FIRE. Fire Station 43 is approximately 3.6 miles from the most remote areas of the Project site with a calculated travel time of approximately 6.8 minutes. In addition to this responding fire station, the County and/or CAL FIRE co-located Station 47 would respond with additional resources. Station 47 is located at 40080 Ribbonwood Road in the unincorporated community of Boulevard and is staffed with three CAL FIRE firefighters on a Type 2 fire engine that is designed to deal with wildland fire suppression. Station 47 is approximately 10.6 miles to the most remote portion of the JVR Energy Park site, with a calculated travel time of approximately 18.7 minutes. In addition to these responding stations, there are additional resources available through automatic or mutual aid agreements. For more information on fire protection services in the Project area, see Section 3.1.6, Public Services, and Section 2.12, Wildfire, of this EIR.

Law Enforcement

The Project site is within the jurisdiction of the San Diego County Sheriff's Department, Boulevard/Jacumba Office (39919 Highway 94, Boulevard, California). The Boulevard Office, located approximately 8 miles from the Project site, is a satellite office of the Pine Valley Substation, and serves over 200 square miles, including the communities of Boulevard and Jacumba.

Other law enforcement services include California Highway Patrol (CHP) and U.S. Customs and Border Protection (CBP). CHP separates the state into eight patrol divisions or areas, and its jurisdiction is over state highways, the closest of which are I-8 and Old Highway 80 adjacent to the Project site. CHP can also act as state police. The closest CHP offices to the Project site are located in the cities of El Cajon and El Centro (CHP 2019), approximately 50 and 37 miles away, respectively.

CBP also maintains a strong presence in southeastern San Diego County. The Boulevard CBP Station is located at 2463 Ribbonwood Road in the unincorporated community of Boulevard (CBP 2014a) approximately 8.4 miles away from the Project site. The Boulevard station is responsible for a patrol area of 417.8 square miles and two traffic checkpoints (CBP 2014b). CBP officers at the Boulevard CBP Station patrol east of Jewel Valley Road to the County border with Imperial County.

2.6.2 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 Proposed Project and the topics of hazardous substances, site contamination, and potential emergencies on the site.

Federal Regulations

National Emission Standards for Hazardous Air Pollutants

The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) requires that a thorough asbestos survey be performed prior to demolition or renovation activities that may disturb ACM. 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 Resource Conservation and Recovery Act (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 U.S. Environmental Protection Agency (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

Refer to EIR Section 2.7, Hydrology and Water Quality, for an overview of the Clean Water Act and associated Stormwater Pollution Prevent 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.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act, also known as SARA Title III, was enacted in October 1986. The act 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. SARA Title III 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. The act 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). 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.

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 the California Department of Transportation (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 is, to the highest extent possible, a scientific process. In general terms, risk depends on 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.

The EPA developed Regional Screening Levels (RSLs), which provide a unified set of screening level/preliminary remediation goals for all regions of the EPA for screening chemical contaminants at superfund sites. These tables, which include 813 listed chemicals, are intended to promote national consistency. The RSLs are calculated using the latest toxicity values, default exposure assumptions and physical and chemical properties. An online calculator is also available where default parameters can be changed to reflect site-specific risks. The RSL Generic Tables are considered ready for use, and contain both the screening level calculation and the toxicity values used to create the generic RSL. The RSLs are considered by the EPA to be protective for humans

(including sensitive groups) over a lifetime. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding RSLs can be assumed to not pose a significant health risk to people who may live (residential RSLs) or work (commercial/industrial RSLs) at the site. The EPA RSL tables were most recently updated in November 2018.

The California DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. The HERO review of the EPA RSLs determined that the revised RSLs (which replaced the EPA Preliminary Remediation Goals [PRGs] in 2008) included some levels that were substantially higher, and therefore less protective, than the previous PRGs. HERO therefore created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels (DTSC-SLs) based on review of the EPA RSLs. HERO reference tables 1, 2, and 3 provide recommended screening levels for compounds in soil, tap water, and air, respectively. The DTSC-SL should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities. DTSC-SLs for soil and tap water are identified in the tables when the value is at least three-fold more stringent than the corresponding EPA RSL, and an air DTSC-SL is identified when it is more stringent than the corresponding EPA RSL by any degree. DTSC also accepts use of the EPA online screening calculator to calculate site-specific screening levels that are more protective of CalEPA and EPA toxicity values and applied assumptions are consistent with HERO recommendations. HERO Note 3 was most recently updated in June 2018.

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 FAA Solar Guide includes the following content:

- Chapter 1 provides an introduction to solar electricity and how it is delivered to customers. It includes a description of solar photovoltaic (PV) technology, which is one of the more practical applications for airports, other types of solar energy systems, how systems connect and operate with the electric grid, and the specific electricity supply and demand issues associated with solar projects at airports.

- Chapter 2 reviews airport site planning issues including the life cycle of a typical solar PV project, project participants, and airport planning considerations for locating solar facilities at airports (e.g., Airport Layout Plan consistency).
- Chapter 3 examines the regulatory issues that FAA must consider, including Title 14 of the CFR Part 77 (Airspace Review) and obligations under the National Environmental Policy Act. Objects that exceed the Part 77 height limits constitute airspace obstructions.
 - Part 77 Subsection C describes the standards used for determining obstructions to air navigation. These standards apply to the following:

An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

- 1 A height of 499 feet above ground level (AGL) at the site of the object.
 - 2 A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.
 - 3 A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.
 - 4 A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.
 - 5 The surface of a takeoff and landing area of an airport or any imaginary surface established under Section 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.
- Chapter 4 describes the financial landscape for solar projects including the government incentives available to fund projects and how the different ownership models (e.g., public versus private) can maximize project cost-effectiveness.
 - Chapter 5 reviews the federal government's role in solar development and includes recommendations for future research and procedural efficiency.

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.

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

Hazardous Materials

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 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.

Cal/OSHA Asbestos and Carcinogen Unit

Cal/OSHA Asbestos and Carcinogen Unit enforces asbestos standards in construction, shipyards, and general industry. This includes identification and removal requirements of asbestos in buildings, as well as health and safety requirements of employees performing work under the Asbestos-In-Construction regulations 8 CCR 1529. Only a Cal/OSHA-Certified Asbestos Consultant can provide asbestos consulting (as defined by the Business and Professions Code, 7180–7189.7, and triggered by the same size and concentration triggers as for registered contractors). These services include building inspection, abatement project design, contract administration, supervision of site surveillance technicians, sample collection, preparation of asbestos management plans, and clearance air monitoring.

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 CalEPA to develop at least annually an updated Cortese List. The Department of Toxic Substances Control 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.

California Health and Safety Code and Code of Regulations

Article 1 of H&SC Chapter 6.95, Article 1 (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). This regulation requires that no final certificate of

occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the Health and Safety Code, Division 20, Chapter 6.95, Article 2, Sections 25500–25520. The HMBP is required to contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of on site. The plan also contains an emergency response plan which describes the procedures for mitigating a hazardous materials release, procedures and equipment for minimizing the potential damage of a hazardous materials release, and provisions for immediate notification of the Hazardous Materials Division, the Office of Emergency Services, and other emergency response personnel such as the local Fire Agency having jurisdiction. 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 Hazardous Materials Division 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 preventative 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.

Risk Management Plans

H&SC Chapter 6.95, Article 2 (Sections 25531–25543.3) requires the owner or operator of a stationary source (non-transportation) 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, water treatment and wastewater treatment plants that handle chlorine gas and facilities that store flammable chemicals such as methane and propane.

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

The Department of Toxic Substances Control 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 San Diego County Department of Environmental Health (DEH).

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 California Code of Regulations. 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 DEH is the local administering agency for this program.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the California Code of Regulations 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.

Senate Bill 1889, 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 and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, RWQCB, San Diego Air Pollution Control District, CAL FIRE, the County DEH Hazardous Incident Response Team, and the County of San Diego Office of Emergency Services.

California Fire Code

The California Fire Code (CFC) is Chapter 9 of Title 24 of the California Code of Regulations. It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and

enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

Title 14 Division 1.5 of the California Code of Regulations

Title 14 of the California Code of Regulations, Division 1.5, establishes the regulations for CAL FIRE and is applicable in all State Responsibility Areas—areas where CAL FIRE is responsible for wildfire protection. Most of the unincorporated area of the County is a State Responsibility Area, and any development in State Responsibility Areas must comply with these regulations. Among other things, Title 14, Section 1270 et seq. establishes minimum standards for emergency access, fuel modification, setback to property line, signage, and water supply.

State Fire Regulations

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The state fire marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

Emergency Response

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) California Emergency Management Agency 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

San Diego County, Site Assessment and Mitigation Program

The County DEH maintains the Site Assessment and Mitigation list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. The County Site Assessment and Mitigation Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within the County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code and California Code of Regulations. The Site Assessment and Mitigation's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects, including properties contaminated with hazardous substances.

San Diego County, Air Pollution Control District

The San Diego County Air Pollution Control District is the local agency responsible for enforcing the rules and regulations for asbestos removal and demolition operations. Rule 1206 – Asbestos Removal, Renovation, and Demolition, adopted on November 15, 2017, applies to owners and operators of any renovation or demolition operation.

Jacumba Airport Land Use Compatibility Plan

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. Airport safety zones are established as part of the ALUCP, and land use restrictions within safety zones are established to protect people and property on the ground and in the air. Main areas of concern related to airport hazards include overflight safety, airspace protection, flight patterns, and land use compatibility. Hazards associated with airports can have serious human safety and quality of life impacts. An ALUCP identifies an area around the airport as the AIA, which is established by factors including airport size, operations, and configuration, as well as the safety, airspace protection, noise, and overflight impacts on the land surrounding an airport.

The County adopted the ALUCP for the Jacumba Airport in December 2006 and amended the plan in 2011 (County of San Diego 2011a). As established by the San Diego County Airport Land Use Commission (ALUC), the geographic scope of the Jacumba ALUCP encompasses an AIA. Most of the Project site is located within the Jacumba AIA.

As established in Chapter 3 of the Jacumba ALUCP, the Jacumba AIA is divided into two subareas, Review Area 1 and Review Area 2. Review Area 1 encompasses six designated safety zones and the 50 decibels (dB) community noise equivalent level (CNEL) noise contour. Within Review Area 1, all types of land use actions are to be submitted to the ALUC for review to the extent review is required by law. Review Area 2 encompasses the airport-related overflight areas and the airspace protection area not encompassed within Review Area 1. Limits on the heights of structures, particularly in areas of high terrain, are the only restrictions on land uses within Review Area 2. The additional function of this area is to define where various mechanisms to alert prospective property owners about the nearby airport are appropriate.

The noise contours established for the purpose of evaluating the noise compatibility of land use development in the influence area of Jacumba Airport are depicted in Figure 2.6-1, Project Location in Jacumba Airport Influence Area. As required by state law (Public Utilities Code Section 21675[a]), the noise contours reflect the anticipated growth of the airport during at least the next 20 years.

Chapter 3 of the Jacumba ALUCP also provides policies which identify specific characteristics to be avoided on land uses that may cause visual, electronic, or wildlife hazards, particularly bird strikes to aircraft influence areas. For example, sources of glare or dust are characteristics to be avoided.

County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

The County Multi-Jurisdictional Hazard Mitigation Plan is implemented by the County of San Diego Office of Emergency Services. The Multi-Jurisdictional Hazard Mitigation Plan is a County-wide plan that identifies risks posed by natural and human-caused disasters and discusses ways to minimize potential damage occurring as a result of these disasters. The comprehensive plan is intended to serve many purposes, including enhancing public understanding and awareness of potential hazardous situations, creating a decision tool for managing hazards, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, providing inter-jurisdictional coordination, and achieving regulatory compliance (County of San Diego 2010b).

Operational Area Emergency Plan

The Operational Area Emergency Plan (County of San Diego 2010c) 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 Operational Area Emergency 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 2010b) 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 the County's unincorporated areas.

County of San Diego Code of Regulatory Ordinances Sections 68.401–68.406, Defensible Space for Fire Protection Ordinance

This ordinance addresses the accumulation of weeds, rubbish, and other materials on a private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. The ordinance constitutes the presence of such weeds, rubbish, and other materials as a public nuisance, which must be abated in accordance with the provisions of this section. This ordinance is enforced in all County Service Areas, and in the unincorporated areas of the County outside of a fire protection district. All fire protection districts have a combustible vegetation abatement program, and many fire protection districts have adopted and enforce the County's ordinance.

County of San Diego Code of Regulatory Ordinances Sections 96.1.005 and 96.1.202, Removal of Fire Hazards

The SDCFA, in partnership with CAL FIRE, the federal Bureau of Land Management, and the U.S. Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from CAL FIRE are responsible for the initial inspection of properties to ensure an adequate defensible space has been created around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a reasonable time frame to complete the task. If the violations still exist upon reinspection, the local fire inspector will forward a complaint to the County for further enforcement action.

County of San Diego Consolidated Fire Code

The County, in collaboration with the local fire protection districts, created the first Consolidated Fire Code in 2001. The Consolidated Fire Code contains the County and fire protection districts' amendments to the CFC. The purpose of consolidation of the County and local fire districts adoptive ordinances is to promote consistency in the interpretation and enforcement of the fire code for the protection of the public health and safety, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. The Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally,

the fire code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases. San Diego County's 2017 Consolidated Fire Code is the most recently adopted version and it contains the County and fire protection districts' amendments to the 2016 CFC.

County of San Diego General Plan

Updated and adopted in August 2011, the County of San Diego General Plan guides future growth in the unincorporated areas of the County and considers projected growth anticipated to occur within various communities. Policies relevant to emergencies, hazards, and hazardous materials are listed below (County of San Diego 2011b, 2011c).

Land Use Element

- ***Policy LU-6.10: Protection from Hazards.*** Require that development be located and designed to protect property and residents from the risks of natural and [hu]man-induced hazards.

Safety

- ***Policy S-3.1: Defensible Development.*** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.
- ***Policy S-3.4: Service Availability.*** Plan for development where fire and emergency services are available or planned.
- ***Policy S-3.5: Access Roads.*** Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.
- ***Policy S-11.1: 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.
- ***Policy S-11.3: 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.
- ***Policy S-11.4: 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.

- ***Policy S-11.5: 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.
- ***Policy S-15.3: 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.

Subregional Plans

The Project site is located within the Mountain Empire Subregional Plan and the Jacumba Subregional Group Area Community Plan planning area boundaries. There are no policies relevant to hazards or hazardous materials in the Mountain Empire Subregional Plan or the Jacumba Subregional Group Area vision statement.

2.6.3 Analysis of Proposed Project Effects and Determination as to Significance

The Proposed Project is a solar energy generation and storage facility, which includes a switchyard that would be transferred to San Diego Gas & Electric (SDG&E) after construction. For the purposes of this analysis, the switchyard (as described in Chapter 1 of this EIR) is a component of the Proposed Project and has been analyzed as part of the whole of the action. However, the EIR highlights the specific analysis of the switchyard under each threshold of significance in the event that responsible agencies have CEQA obligations related to the switchyard.

Direct, indirect, and cumulative impacts pertaining to hazards and hazardous materials are evaluated based on specified thresholds identified in the CEQA Guidelines, Appendix G and in the County of San Diego's Guidelines for Determining Significance, including the following:

- County Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007a)
- County Guidelines for Determining Significance, Airport Hazards (County of San Diego 2007b)
- County Guidelines for Determining Significance and Report Format and Content Requirements, Wildland Fire and Fire Protection (County of San Diego 2010a)
- County Guidelines for Determining Significance, Emergency Response Plans (County of San Diego 2007c)

The County's Guidelines for Determining Significance are generally intended to address the questions posed in Appendix G of the CEQA Guidelines. In 2018, the CEQA Guidelines were updated and several of the questions listed in Appendix G were revised, deleted, or modified. The County's Guidelines for Determining Significance have yet to be updated to address these amendments. Accordingly, this EIR analyzes the impacts from the Proposed Project using the County's Guidelines for Determining Significance and the questions posed in Appendix G of the CEQA Guidelines. Where the questions in Appendix G have not been revised, only the County's Guidelines for Determining Significance are identified and analyzed. Where the questions in Appendix G have been significantly altered or additional questions have been posed, the Proposed Project's impacts are analyzed as against the questions in Appendix G and, to the extent they remain consistent with Appendix G, the County's Guidelines for Determining Significance.

2.6.3.1 Listed Hazardous Sites

For the purposes of this section, the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (Hazardous Materials Guidelines) (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. The County's Guidelines indicate that a project will generally be considered to have a significant effect if:

- 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.

Analysis

The Project site is not included in the State of California Hazardous Waste and Substances site list (Appendix G). Five FINDS/FRS sites were identified within approximately 0.02 miles of the Project site: including gas stations, a substation, and an auto repair shop. Thirty-four sites (at 11 unique addresses) within the specified search areas were identified in the state regulatory databases searched by Environmental Risk Information System. Four of the 11 addresses are listed in databases that do not indicate a release to the subsurface has occurred and thus are not considered

to be of concern to the subject property. The remaining seven addresses include sites listed in databases indicating hazards such as LUSTs, CLEANUP SITES, SANDIEGO HAZ, and others. These sites include Woodward's Shell Service, Jacumba Chevron, Jacumba Airport, a Former Chevron Station, Rodfers Auto Repair, Josephine Noltz Property, and Jacumba Burn Dumps I and II site. Based on the review of regulatory agency records, it is unlikely that these off-site sources have impacted the environmental conditions of the Project site (Appendix G).

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. The Jacumba Airport site is listed in the ENVIROSTOR database as a FUDS and is located less than 0.25 miles east of the Project site. As such, the Project site is located within 1,000 feet of a FUDS (Appendix G). However, there is no indication of a release to the environment; therefore, it is not likely that this FUDS site impacted the environmental conditions at the Project site.

Jacumba Chevron, formerly Jacumba Texaco, is located less than 0.25 miles northeast of the Project site. Concentrations of benzene, toluene, ethylbenzene, and MTBE (a blending component of gasoline) in the groundwater exceed their respective MCLs in monitoring wells located within the former LUST area (Appendix G). Remedial investigations and corrective actions were completed on the Jacumba Chevron site between 2003 and 2010. The most recent available groundwater monitoring report indicates groundwater on the Jacumba Chevron site flows in a north-northeastern direction (away from the Project site) (Appendix G). The County closed the LUST case file in 2012, as it was determined the remaining contamination plume migrated vertically, but little lateral migration was noted, and natural degradation of the plume would be protective of human health and the environment. Monitoring wells on the west and southwest portion of the Jacumba Chevron site, nearest to the Project site, showed no detectable concentrations of contaminants of concern in the most recent monitoring event, and historical monitoring of those wells from 2003 to 2010 showed consistently undetected concentrations of concern (with a few minor outliers) (Appendix G). Furthermore, the Jacumba Chevron site is more than 4,300 feet from the nearest groundwater production well on the Project site. Therefore, given the available monitoring data, and the distance to the nearest groundwater production well, it is not expected that contaminated groundwater would be encountered during construction or operation of the Proposed Project. Therefore, impacts from listed hazardous sites would be **less than significant**.

Switchyard

The proposed switchyard would be located within the boundary of the Proposed Project; therefore, the previous analysis for the Proposed Project applies to the switchyard. Thus, the switchyard Proposed Project component would be in proximity to sites identified in regulatory databases for

hazards sites. However, with compliance with existing applicable regulations impacts would be **less than significant**.

2.6.3.2 Landfill Hazards

Guidelines for the Determination of Significance

For the purposes of this section, the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. A project would generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it would generally not be considered to have a significant effect related to hazardous substances and existing contamination, absent specific evidence of such an effect:

- 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

As discussed in Appendix G, the nearest open, abandoned, or closed landfill is the Jacumba Burn Dumps I and II site, which is located at 1000 Old Highway 80, approximately 0.5 miles east of the Project site. The site is listed in the CLEANUP SITES database. The site was a former burn dump. Approximately 8,500 cubic yards of burn debris were taken off the burn dump site in 2010 for disposal at a landfill in Yuma, Arizona. The case was clean closed in 2010. Due to the case status (closed), the complete removal of burn debris from the burn dump site, and distance from the Project site, it is not likely that burn dump impacted the environmental conditions at the Project site. The Project site is not within 1,000 feet of an open, abandoned, or closed landfill; therefore, no impact would occur. The Jacumba Burn Dumps I and II site is also the nearest parcel having the potential of containing burn ash. Therefore, the Proposed Project would not be within 250 feet of a parcel containing burn ash; **no impact** would occur.

Switchyard

The proposed switchyard would be located within the boundary of the Proposed Project; therefore, the previous analysis for the Proposed Project applies to the switchyard. Thus, the switchyard Proposed Project component would not be within 1,000 feet of an open, abandoned, or closed

landfill, nor would it be within 250 feet of a parcel containing burn ash. Therefore, **no impact** would occur.

2.6.3.3 Hazardous Materials

Guidelines for the Determination of Significance

For the purposes of this section, the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. A project would generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it would generally not be considered to have a significant effect related to hazardous substances and existing contamination, absent specific evidence of such an effect:

- 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 Proposed Project, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the Project site. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of hazardous materials. Regulations that would be required of those transporting, using or disposing of hazardous materials are discussed above and include RCRA, CERCLA, the Hazardous Materials Transportation Act, the International Fire Code, Title 22 and Title 27 of the California Code of Regulations, and the County Consolidated Fire Code. The Project site would include the use and storage of limited quantities of lubricants and cleaners potentially covered under Chapter 6.95 of the H&SC, 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. In addition, as required by the State Health & Safety Code Section 25501, the Proposed Project would be conditioned to prepare a HMBP. No underground storage tanks are proposed as a part of the Proposed

Project. The Proposed Project would comply with all applicable regulations governing the use of hazardous substances during construction.

PV panels typically contain stable components such as silicon and metal, which would not pose a hazardous materials concern. The silicon in some panels may be infused with trace amounts of chemicals such as boron or phosphorous. However, the small amounts of these chemicals would not pose a hazard in the unlikely event of panel failure and release.

The Proposed Project would include a step-up transformer that would contain approximately 6,000 gallons of mineral oil, which would necessitate an HMBP in accordance with Chapter 6.95 of the H&SC, Division 20 (AB 2185 and AB 2189). The Proposed Project is designed to comply with the requirement of Chapter 6.95 of the H&SC, including containment provisions for potential spills by containing the materials within boxed components and mounting these on concrete foundations.

A battery energy storage system with a maximum capacity of up to 90 MW, 180 MWh, is proposed to be located throughout the Project site adjacent to the inverter/transformer platforms (up to 3 steel containers at each location for a total of 75 containers on site). Each steel container would hold Lithium-ion nanophosphate battery packs on racks throughout a large percentage of the container. The containers are typically made from the 12- to 14-gauge steel, and measure approximately 55 feet long, 19 feet wide, and 10 feet high. Each container would be separated from neighboring containers by approximately 10 feet, as recommended by manufacturers. As required, the battery system would be included in the HMBP in accordance with Chapter 6.95 of the H&SC, Division 20.

The primary hazards associated with Lithium-ion nanophosphate 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 release of the lithium in the Proposed Project's battery packs is unlikely due to the rigorous construction of the packs and regulations such as UL1642, lithium cell safety standards. Lithium-ion nanophosphate batteries include a stable cathode chemistry that substantially reduces the possibility of thermal runaway, and provides for a reduced reaction from any sort of abuse such as short-circuiting, overcharging, introduction of nails, or being crushed. In addition, the proposed battery storage system would include the following monitoring and safety components:

- Modular battery racks designed for monitoring and safety
- Integrated heat and fire detection and suppression system
- Explosive gas monitoring
- Exhaust/ventilation systems
- Integrated air conditioning system

- Integrated battery management system

The heat and fire detection system would be linked to an automatic inert gas suppression system within each container. The containers would also have a basic interior sprinkler system with several sprinkler heads for coverage and an external dry standpipe for fire fighters to connect and pump water.

Critical information from the battery system, equipment data from the DC:DC converters and inverters would be monitored by the battery monitoring system inside the containers, at the metering at the inverter cabinets and at the SCADA control system. The battery management system within each container would track the performance, voltage and current, and state of charge of the batteries. The system would proactively search for changes in performance that could indicate impending battery cell failure, and power down and isolate those battery strings in order to avoid potential failures. The battery energy storage system would be purchased from vendors who are on track to have their equipment meet the following Underwriters Laboratories (UL) listings: UL 9540, 1741, 1973, 1642, and any other UL standards at the time of the application of the building permit. In addition, the Proposed Project would comply with the National Fire Protection Association's new Standards for the Installation of Energy Storage Systems (NFPA 855) and all applicable standards in place at the time the building permit is issued. These standards provide the requirements for minimizing the hazards associated with the construction, installation, commissioning, operation, and maintenance of battery energy storage systems.

Decommissioning of the solar facility would entail disassembly of the facility components. Most of components could be recycled or reclaimed. Generally, if the panels can no longer be used in a solar array, the aluminum can be resold, and the glass can be recycled. Any hazardous components of the PV panels would be removed and properly disposed of off site prior to recycling. Remaining materials that cannot be recycled or reclaimed would be limited and would be contained and disposed of offsite, consistent with the County of San Diego Construction Demolition and Debris Management Plan (County Ordinance 68.508–68.518). Impacts associated with closure, decommissioning and recycling of the Project site would be temporary.

The Proposed 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. All storage, handling, transport, emission, and disposal of hazardous substances shall be in full compliance with federal, state, and local regulations. California Government Code Section 65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the H&SC, Division 20, Chapter 6.95, Article 2, Sections 25500–25520. The Proposed Project would comply

with applicable hazardous substance regulations; therefore, impacts related to operational on-site storage, use, or transport of hazardous materials would be **less than significant**.

Multiple existing structures on the Project site contain potentially hazardous levels of asbestos and/or lead-based paint, as discussed in the asbestos and lead-based paint survey (Appendix H). These structures are proposed to be demolished as part of the Proposed Project. These structures are located within the portion of the Project site previously used for dairy and agricultural operations. Asbestos was also identified in debris piles located on the Project site. The Proposed Project would comply with applicable hazardous substance regulations with respect to the asbestos. 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. As such, with the implementation of the existing regulations, impacts regarding hazardous levels of asbestos and/or lead based paint would be less than significant.

Considering the Proposed Project is not located within 0.25 miles of a school or preschool, and would not include the use of a regulated substance subject to CalARP risk management plan requirements (19 CCR, Division 2, Chapter 4.5), the Proposed Project would not exceed the threshold of exposing a school or daycare facility to regulated substances that could adversely affect children's health. Based on the analysis provided, the Proposed Project would comply with applicable hazardous substance regulations and would not adversely affect children's health due to the presence of a school or day care within 0.25 miles of the facility. Therefore, impacts regarding release of hazardous substances within 0.25 miles of a school or preschool would be **less than significant**.

Switchyard

As discussed above, the switchyard component of the Proposed Project would comply with hazardous substance regulations and would not expose persons to hazardous materials. Further, the switchyard site is not located within 0.25 miles of a school or preschool. Impacts relative to hazardous materials as they pertain to the switchyard would be **less than significant**.

2.6.3.4 Airport Hazards

Guidelines for the Determination of Significance

Pursuant with Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would:

- Result in a safety hazard or excessive noise for people residing or working in the project area, 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.

Additionally, as stated in the County's Guidelines for Determining Significance – Airport Hazards (County of San Diego 2007b) applies to the direct and indirect impact analysis, as well as the cumulative impact analysis.

A significant impact would result if:

- The project is located within an established AIA for a public airport 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.
- Conflicts with FAA Regulations: The proposed project is determined by the FAA to constitute a hazard to aviation based on FAA review of Form 7460-1, is inconsistent with current FAA Heliport Design Criteria for Heliports not subject to an ALUCP or CLUP, or conflicts with FAA rules or regulations related to airport hazards and as a result, the project may result in a significant airport hazard.

Analysis

As discussed above, the Jacumba Airport is located immediately to the east of the southern portion of the Project site. The airport is unattended and unlighted and is mainly used as a glider facility by single-engine aircraft and sailplanes, with activity predominately occurring during weekends in non-summer months. Most of the Project site is located within Jacumba AIA. According to the Jacumba ALUCP, a portion of the Project site is located within Review Area 1, which consists of locations subject to noise and safety concerns. More specifically, the southern portion of the site, located to the west of the Jacumba Airport, is located within noise CNEL zones 50 dBA and 55 dBA, and safety Zones 2, 4, and 5 (County of San Diego 2011a). A portion of the Project site is also located within Review Area 2, which is not located within the noise and safety concerns zones. The remainder of the Project site, which includes the northeastern portion of the site adjacent to I-8, is outside the review areas.

Review Area 1 encompasses six designated safety zones and the 50 dB CNEL noise contour. Specifically, Review Area 1 contains both the 50 dB CNEL noise contours and all of the safety zones. Within Review Area 1, all types of land use actions are to be submitted to the ALUC for review to the extent review is required by law.

All development in Safety Zones 2 and 4 must adhere to maximum lot coverage requirements in Table JAC-2, with all structures counted toward coverage. Table JAC-2 compares the land use to the Safety Zone to determine if the use is incompatible, conditional, or compatible with the airport use. If a use is conditional or compatible, it is allowed with a maximum 50% lot coverage in Zone 2 and 70% lot coverage in Zone 4. Solar panel energy production is not specifically addressed in Table JAC-2, but it

is most similar to the utility use “cell phone tower, wind turbines,” which is marked compatible in Table JAC-2 and allowed with 50% and 70% lot coverage in Zones 2 and 4, respectively.

Lot coverage is not defined in the ALUCP or in the California Airport Land Use Planning Handbook. The County’s Zoning Ordinance defines lot coverage as “the percentage of net site area covered by the vertical projection of any structure excluding any structure not extending above grade.” Under this definitions, the area between each solar panel is not included as lot coverage because the ground is openly exposed to the sky and there is no vertical projection above grade.

The Project site is 1240 acres, with 33.81 acres in Zone 2 and 87.95 acres in Zone 4.

Of the 33.81 acres in Zone 2, the County believes 8.45 to 15.21 acres are covered, which is 25% to 45%. If the County measured the general area in which solar panels are grouped together, including the uncovered area between the individual panels, the lot coverage would be approximately 30 acres, or 88%. But as described above, the County determined lot coverage by measuring the actual coverage from each individual solar panel at its widest part and excluding the uncovered area between them from the coverage total. Using that methodology, the lot coverage is between 8.45 to 15.21 acres, or 25% to 45%.

Of the 87.95 acres in Zone 4, approximately 22 acres to 39.58 are covered, which is 25% to 45%. If the County measured the general area in which solar panels are grouped together, including the uncovered area between the individual panels, the lot coverage would be approximately 73 acres, or 83%. But as described above, the County determined lot coverage by measuring the actual coverage from each individual solar panel and excluding the uncovered area between them from the coverage total. Using that methodology, the lot coverage is approximately 22 to 39.58 acres, or 25% to 45%.

Because the lot coverage in Zone 2 is between 25% to 50% (which is less than 50%), and because the lot coverage in Zone 4 is 25% to 45% (which is less than 70%), the Proposed Project’s lot coverage is consistent with the ALUCP.

Project sites 10 acres or greater must provide at least one area of open land (0.5 acres) per 10 acres. Open land is intended to allow light aircraft to have controlled emergency landings, and an area qualifies as “open land” if it meets the following requirements: free of most structures and obstacles such as walls, large trees or poles, and overhead wires; minimum dimensions of 75 x 300 feet; oriented in the typical direction of flights. Roads are acceptable as open land if they meet the above criteria.

As noted above, the Project site impacts 121.95 acres within Safety Zone 2 and 4, and it requires 6.1 acres to satisfy the open land criteria. That total provided is 8.8 acres, which satisfies the requirement for 0.5 acre of open land per 10 acres of the Project site.

Review Area 2 is concerned with height of developments based on the “conical surface,” which is the elevations at which aircraft navigate in proximity to the airport. The Proposed Project structures would be below the conical surface for the Jacumba Airport and would not represent an incompatible use. Within Review Area 2, objects would require review if they exceed 200 feet in height, or exceed an imaginary surface extending outward and upward at a slope of either 100:1 for a horizontal distance of 20,000 feet, 50:1 for a horizontal distance of 10,000 feet, 25:1 for a horizontal distance of 5,000 feet. The Proposed Project would not include any object or structure exceeding 200 feet above ground surface. The Proposed Project would include up to 5 poles 70 feet to 115 feet in height; however these poles are located approximately 0.87 miles from the Jacumba Airport. Incompatible uses are defined in the ALUCP and include those uses creating visual or electrical distractions such as bright lights or those that may look like runway lights or uses that may attract birds or other wildlife hazardous to aircraft.

Federal Aviation Regulations (FAR) Part 77 deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. The Proposed Project would not exceed the height limits established in Part 77 Subsection C, because the PV module arrays’ final elevations from the ground would be determined during the detailed Proposed Project design process; however, for the purpose of the analysis in this EIR, maximum height above the graded ground surface would be 12 feet.

The Proposed Project would have the potential to be considered an Other Flight Hazard, due to the potential for glare and glint from the PV panels and its proximity to the Jacumba Airport. Therefore, the Proposed Project would be required to notify the FAA of certain proposed construction and alteration. A notification is required at least 45 days prior to the start of construction; however, notification provided as early as possible in the planning stage is desired to identify potential conflicts and minimize adverse impacts to aviation safety. Notification to the FAA is typically provided by Form 7460-1, Notice of Proposed Construction or Alteration (County of San Diego 2007b).

While the FAA Solar Guide focuses on the design considerations and application of solar panels at airport sites, there is some guidance pertaining to reflectivity of solar technology that may apply. However, as previously stated in Section 2.6.2, Regulatory Setting, the FAA cautions users against relying on the reflectivity section as the FAA is reviewing it based on new information and field experience (FAA 2018). It should also be noted that pursuant to the Code of Federal Regulations, Section 91.119 of the General Operating and Flight Rules, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure except when necessary for takeoff or landing (14 CFR 91.119).

A Glare Study was prepared by POWER Engineers in 2018 for the Proposed Project (see Appendix A to Appendix B, Visual Resources Report). The Proposed Project may result in brief periods of

glare potential immediately west of the facility shortly after sunrise and immediately east of the facility shortly before sunset at specific times of the year. The solar facility would be directed southward toward the sun and include PV technology that is designed to maximize absorption and avoid reflectivity of solar light to realize the greatest potential conversion to electricity. The proposed solar panels would be uniformly dark in color, non-reflective, and designed to be highly absorptive of all light that strikes their glass surfaces. Potential glare visible from the proposed solar operations would be limited to the Jacumba Airport Runway 7 approach (i.e., west approach) during the afternoon hours of the winter months lasting for less than one hour per day. During the morning hours, the modified wake angle of arrays south of Old Highway 80 would redirect any potential glare up and out of the view of pilots landing on the Runway 7 approach. The exposure of pilot's Proposed-Project-generated glare on the westbound approach to the Jacumba Airport Runway 7 to would be limited throughout the year and would be within the range deemed acceptable by the FAA (i.e., "green" hazard level). Based on the analysis in the Glare Study (Appendix A to Appendix B, Visual Resources Report), the Proposed Project and more specifically, Proposed-Project-generated glare, would not substantially affect the daytime views of pilots on the Jacumba Airport Runway 7 approach. Therefore, Proposed-Project-generated glare impacts would be less than significant.

The low glare of the proposed solar facility combined with the orientation of the PV panels to the south, away from approaching aviation users, would ensure that the Proposed Project would not cause a significant impact to aircraft as a result of glare. Further, the Proposed Project would comply with FAA regulations, including requiring the Proposed Project to notify the FAA through Form 7460-1. As such, the Proposed Project's impacts on airports or air traffic in the area would be **less than significant**.

As further discussed in the Acoustical Assessment Report (Appendix M) according to the Jacumba ALUCP, the Project site partially lies within the 50–55 dB CNEL and 55–60 dB CNEL calculated noise contours (County of San Diego 2011a). The Jacumba Airport is within 1,000 feet of the southeastern boundary of the Proposed Project; however, the average aircraft operations frequency of 34 flights per week (AirNav.com 2020) among which only 80% are single-engine powered flight (County of San Diego 2011a), suggests that aviation noise is infrequent. The Jacumba ALUCP indicates that aviation noise is less than 50 dBA CNEL east of parcels APN 660-15-005 and APN 660-15-006 that abut Old Highway 80 and are approximately 1,330 feet west-northwest of the airport's western property boundary (County of San Diego 2011a). At this magnitude, which is comparable to multiple daytime samples of outdoor ambient sound levels in the vicinity of the Proposed Project, aviation noise exposure to Proposed Project construction workers would not be considered significant. In addition, the Proposed Project would be operated remotely; therefore, the amount of on-site workers would be limited to maintenance workers who would only visit the Project site periodically. This would limit the potential exposure maintenance workers would have

to airport noise. In addition, during the construction period and when routine maintenance is being performed, the Jacumba Airport is unattended and is mainly used as a glider facility by single-engine aircraft and sailplanes, with activity predominately occurring during weekends in non-summer months; therefore, the Proposed Project would not result excessive noise for people residing or working in the Project area due to the proximity to the Jacumba Airport. Therefore, impacts would be **less than significant**.

Switchyard

The Jacumba Airport is located 0.9 miles south of the switchyard site. At this distance, the magnitude of aviation noise exposure to construction workers would be comparable to multiple daytime samples of outdoor ambient sound levels in the vicinity of the switchyard and would not be considered significant. In addition, the switchyard would be operated remotely; therefore, the amount of on-site workers would be limited to maintenance workers who would only visit the switchyard site periodically. This would limit the potential exposure maintenance workers would have to airport noise. This Proposed Project component would also not exceed the Part 77 height limits, as the tallest structure on site would be within the switchyard and would have maximum height of 115 feet; therefore, the switchyard component would not constitute an airspace obstruction. The switchyard would consist of circuit breakers, overhead electrical bus work, switches and controls, and a control enclosure none of which would produce glare in the proximity of Jacumba Airport; therefore, this component would not have the potential to be considered an Other Flight Hazard. In addition, the switchyard would be an un-staffed facility. As such, the switchyard component of the Proposed Project would have less than significant impacts on airports or air traffic in the area.

2.6.3.5 Hazards Associated with Interference with Emergency Responses

Guidelines for the Determination of Significance

Pursuant to Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Additionally, the County's Guidelines for Determining Significance for Emergency Response Plans (County of San Diego 2007c), Airport Hazards (County of San Diego 2007b), and Guidelines for Determining Significance and Report Format and Content Requirements for Wildland Fire and Fire Protection (County of San Diego 2010a) apply to the direct and indirect impact analysis, as well as the cumulative impact analysis. An affirmative response to, or confirmation of, any one of the following guidelines, will generally be considered a significant impact related to emergency responses as a result of a project, in the absence of evidence to the contrary:

- The project does not meet the emergency response objectives identified in the Safety Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.
- 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.
- The project would substantially impact an adopted emergency response plan or emergency evacuation plan.

Analysis

Adopted Plans

To better establish Mutual Aid capabilities and improve communications between jurisdictions and agencies, as well as assist the County and cities in developing emergency plans and exercising those plans, the San Diego County Operational Area (OA) was formed. The OA Emergency Operations Plan (EOP) is used by the County and all of the cities within the San Diego County to respond to major emergencies and disasters, including wildfire. The OA EOP describes the roles and responsibilities of all departments and the relationship between the County and its departments and the jurisdictions within the County. The OA EOP has been adopted and is complete with 16 functional annexes, including an Evacuation Annex (Annex Q). The OA Evacuation Annex is intended to be used as a template for the development of other jurisdictional evacuation plans and describes how emergencies are managed and how the evacuation of residents and their pets are implemented. The OA Evacuation Annex outlines strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation effort in the OA, as described in the County's Operational Area Emergency Operations Plan (County of San Diego 2018).

In addition, the County has contracted with an independent fire operations consulting firm (Rohde and Associates) which has been preparing regional Wildland Urban Interface emergency response plans for certain areas in the County to encapsulate the County's pre-fire planning for wildfire emergencies. However, a Wildland Urban Interface plan has not been prepared for the Jacumba area. Thus, there is no adopted plan specific to the Project area.

The Proposed Project is an unmanned solar energy generation and storage facility; therefore, the Project would not result in increased population or housing in the Project area. During operations, there would at times be a minimum number of workers (up to five workers) for maintenance activities as needed. Therefore, during operations the Project would not increase the number of people and vehicles needing to evacuate the area during a wildfire emergency.

During construction of the Project there would be up to 500 workers on site. The construction period is anticipated to last up to 13 months. Thus, the construction period would include the highest daily on-site population and potential for additional vehicles. The addition of up to 500 vehicles in the area during construction would increase the number of vehicles evacuating the Jacumba community area during this period. During decommissioning, it is anticipated up to 250 workers would be onsite.

Measures to reduce fire risk during the construction period are included in the Construction Fire Protection Plan (CFPP), which is Appendix A of the Project's FPP (Appendix N of the Draft EIR). Informing on-site workers of their evacuation alternatives and that the route to the east to Carrizo Gorge Road will be the priority and preferred route unless it is compromised. Within the Project site, evacuation routes shall be maintained and free of obstructions. Unavoidable evacuation route blockages within the Project site shall be coordinated such that a secondary route is identified and available.

In addition, emergency response agencies managing wildfire evacuations know that wildfires are fluid events and San Diego County has developed a sophisticated approach to tracking and predicting wildfire spread and behavior with corresponding technology to phase evacuation notifications of down-wind communities. Situation awareness during a wildfire is important and the combined resources available to emergency managers are robust, providing these agencies with appropriate and essential evacuation control, which can evolve and include mid-evacuation changes.

The Proposed Project would not conflict with an adopted emergency response plan or evacuation plan; thus, there would be **no impact** to an adopted plan. Further, the Proposed Project would be an unmanned facility and the increase in up to 500 workers and vehicles on site would be temporary during the construction period.

Emergency Response

An increase in demand for fire protection and emergency services would occur at the Project Site due to increased activity during construction and decommissioning leading to higher amounts of fuel on the site, and a greater number of ignition sources on the site, including equipment and human activities. In addition, during operations and maintenance, the Proposed Project would introduce potential ignition sources that do not currently exist on the Project site.

The County's General Plan requires that fire protection services be provided that meet the minimum travel time standards identified in Table S-1 of the Safety Element (Policy S-6-4). The travel time standards are based on the Regional Category and/or land use designations. The Project site has a Regional Category of Rural Village and the vast majority of the acreage within the proposed development footprint (approximately 627 acres) is designated as Specific Plan.

Based on these land use categories, the travel time standard from the closest fire station is 10 minutes. The Jacumba Fire Station 43 is approximately 3.6 miles from the most remote areas of the proposed development footprint with a calculated travel time of less than 6.8 minutes.² Therefore, the Proposed Project would comply with the County General Plan for the travel time from the closest fire station (Dudek 2019a). In addition, the Proposed Project would also have additional fire protection services from the Boulevard Fire Station that is located approximately 10.6 miles to the most remote portion of the Proposed Project site with a calculated travel time of approximately 18.7 minutes. In addition to these responding fire stations, there are resources available through automatic or mutual aid agreements. Thus, the Project meets the General Plan travel time standards.

Once operational, the Proposed Project would have access driveways, a perimeter drive and interior driveways within the solar facility. Access to the solar facility from Carrizo Gorge Road and Old Highway 80 would be established through construction of six driveways that would be located at the following five locations:

- Access 1 – Full access driveway along Carrizo Gorge Road (east leg), approximately 1,000 feet southeast of the I-8 interchange;
- Access 2 – Full access driveway along Carrizo Gorge Road (west leg), approximately 1,450 feet southeast of the I-8 interchange;
- Access 3 – Full access driveway along Carrizo Gorge Road (east leg), approximately 2,100 feet southeast of the I-8 interchange;
- Access 4 – Full access driveway along Carrizo Gorge Road (west leg), approximately 2,800 feet southeast of the I-8 interchange; and
- Access 5 – Full access driveway along Old Highway 80 (north and south leg), approximately 1,200 feet east of Campo Street.

These access driveways would be paved, would be a minimum of 24 feet in width, and would be fully accessible to emergency services via a Knox Box placed at each access driveway. The Project does not propose any to changes to the design of Carrizo Gorge Road or Old Highway 80.

Within the fenced solar facility, the perimeter access driveway would be constructed to a minimum improved width of approximately 24 feet. The interior access would be constructed to a minimum improved width of 20 feet. All access would be arranged to provide a minimum inner turning

² Travel distances were derived from Google Earth road data and driving on the access roads to fire stations from Proposed Project site while travel times were calculated applying the nationally recognized Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard formula ($T=0.65 + 1.7 D$, where T = time and D = distance). The ISO response travel time formula discounts speed for intersections, vehicle deceleration and acceleration, and does not include turnout time.

radius of 28-feet, would be graded and maintained to support the imposed loads of a fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. Minimum vertical clearance of 13 feet 6 inches from the driving surface shall be maintained for the interior access. Thus, the Project has been designed to allow ease of access for emergency responders both externally and internally.

The Project would also implement a project design feature (**PDF-TR-1**) that would require the preparation of the County-required traffic control plan during Project construction and decommissioning. **PDF-TR-1** would provide safe and efficient traffic flow in the Project area and on-site during construction and decommissioning activities, which would also ensure safe access to the site and surrounding properties by emergency responders.

During the operations phase of the Proposed Project, no full-time personnel would be working on site, but the site may include up to five people at a time as needed for inspections, maintenance, and repair activities. The Proposed Project is estimated to add fewer than 0.2 calls per year to Jacumba Fire Station 43 and the co-located CAL FIRE and County Boulevard Fire Station 47 during operation of the Proposed Project facilities (Appendix N).

During the construction phase, which would occur over approximately 13 months, there would be up to 500 people on the Project site on any given day. The short duration of the construction phase in comparison to the longer-term operational period is considered not significant in terms of its overall increase in annual calls. For example, assuming 500 people are on site every day for 12 months, this on-site population would be expected to result in up to 35 emergency calls, or 0.1 calls per day. Because construction would not occur during the nighttime hours, there would not be workers on site for 12 hours of the day, reducing the potential calls to 0.05 calls per day. Neither of these call volume increases would substantially impact the capabilities of the responding fire stations. The addition of 0.05 calls for a short duration or 0.2 calls per year long term to rural fire stations that currently respond to approximately one call per day is not considered significant and would not require the construction of additional Fire Station facilities based on that increase alone.

During decommissioning, up to 250 workers would be on site during the 10-month decommissioning period. This temporary impact on emergency response would be less than during the construction period.

For the reasons stated above, impacts to the emergency response objectives identified in the Public Facilities Element of the County General Plan as a result of the Proposed Project would be **less than significant**.

Hazards to Emergency Response Aircraft

The tallest structure on the Project site would be a 138-kilovolt (kV) 1,860-foot-long overhead transmission line (gen-tie) on five transmission poles that would have a maximum height of 70 to 115 feet. These poles would be located in the switchyard site, which is located immediately south of the existing east-west transmission corridor that crosses the northern area of the Project site. Existing transmission infrastructure installed within the corridor includes two 500 kV transmission lines (i.e., Southwest Powerlink and Sunrise Powerlink) that are each supported by a number of steel lattice towers that are approximately 150 feet tall. An additional high-voltage transmission line, the East County Substation 138 kV transmission line, is also supported by tall steel poles and parallels the 500 kV transmission lines. The Proposed Project would include five poles that may be 100 feet or greater in height, but they would be located along the existing transmission corridor that already has existing infrastructure that is of similar height (up to 150 feet high). Therefore, the poles would not be located on a peak, ridgeline or other location where no structures or towers of similar height already exist. Thus, the Proposed Project would not result in hazards to emergency response aircraft resulting in interference with the implementation of an emergency response. Impacts would be **less than significant**.

Switchyard

The switchyard component of the Proposed Project is located adjacent to the on-site collector substation and would be an un-staffed facility, except in cases of maintenance and repair activities. The switchyard site has a Regional Category of Rural Village and is designated as Specific Plan. Based on these land use categories, the travel time standard from the closest fire station is 10 minutes. The Jacumba Fire Station 43 is approximately 1.5 miles from the switchyard site and would require a travel time of approximately 5 minutes. Therefore, the switchyard would comply with the County General Plan for the travel time from the closest fire station (Dudek 2019a). In addition, the Proposed Project would also have additional fire protection services from the Boulevard Fire Station that is located approximately 8 miles from the switchyard site with a calculated travel time of approximately 16 minutes. In addition to these responding fire stations, there are resources available through automatic or mutual aid agreements.

Construction of the switchyard would be subject to the Traffic Control Plan, and when fully operational, the switchyard would include an approximately 1,450-foot long asphalt paved access driveway from Carrizo Gorge Road to the switchyard. The access driveway would be approximately 30-feet-wide, requiring approximately 1.2 acres of land in new right-of-way and 0.3 acres of land on existing SDG&E right-of-way. The access road would be fully accessible to emergency services via a Knox Box. Thus, the Project has been designed to have ease of access by emergency responders.

During construction of the switchyard, up to 41 people may be on the site at one time, and during the operations and maintenance of the switchyard, no full-time personnel are proposed to be located on

site except for periodic visits from up to four workers at a time during operations inspections, maintenance, and repair activities. Thus, the amount of calls the switchyard would add per year to the Jacumba Fire Station 43 and the co-located CAL FIRE and County Boulevard Fire Station 47 during construction and operation of the switchyard facilities would not be substantial.

Therefore, impacts to the emergency response objectives identified in the Public Facilities Element of the County General Plan would be **less than significant**.

Because there are no officially adopted evacuation plans for the area, impacts to an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

The tallest structure on the switchyard site would be a 138 kV 1,860-foot-long overhead transmission line (gen-tie) on five transmission poles that would have a maximum height of 70 to 115 feet. These poles would be located on the switchyard site immediately south of the existing east-west transmission corridor. Existing transmission infrastructure installed within the corridor includes two 500 kV transmission lines (i.e., Southwest Powerlink and Sunrise Powerlink) that are each supported by a number of high steel lattice towers that are approximately 150 feet tall. An additional high-voltage transmission line, the East County Substation 138 kV transmission line, is also supported by tall steel poles and parallels the 500 kV transmission lines. The switchyard would include five poles that may be 100 feet or greater in height, but they would be located along the existing transmission corridor that already has existing infrastructure that is of similar height (up to 150 feet high). Therefore, the poles would not be located on a peak, ridgeline, or other location where no structures or towers of similar height already exist. Thus, the switchyard would not result in hazards to emergency response aircraft resulting in interference with the implementation of an emergency response plan. Impacts would be **less than significant**.

2.6.3.6 Demolition of Hazardous Material-Containing Structures

Guidelines for the Determination of Significance

For the purposes of this EIR, the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007a) applies to both the direct impact analysis and the cumulative impact analysis. A project would generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it would generally not be considered to have a significant effect related to hazardous substances and existing contamination, absent specific evidence of such an effect:

- 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

The Proposed Project includes demolition of existing structures on the Project site. These structures are associated with prior dairy and agricultural operations. The structures are located within one parcel (APN 661-060-12) within the Project site.

An Asbestos Building Inspection and Lead-Based Paint Testing was prepared by Aurora Industrial Hygiene for the subject parcel (Appendix H). The intent of the report is to provide an understanding of the potential hazards that the property may pose to human health due to ACMs and lead-based paint. Site visits to the property were conducted in 2018. The report documents the findings from asbestos bulk sampling and X-ray fluorescence instrumentation to determine if lead-based paint was present on building components. The report identifies various structures which contained asbestos and/or lead-based paint.

In accordance with CalOSHA, 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. Removal of these materials in accordance with requirements would reduce potential impacts below levels of significance. Therefore, impacts related to hazardous materials as a result of demolition of on-site structures would be **less than significant**.

2.6.3.7 Wildland Fire Hazards

Guidelines for the Determination of Significance

Pursuant with Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The County's Guidelines for Determining Significance and Report Format and Content Requirements, Wildland Fire and Fire Protection are analyzed in Section 2.12 of this EIR.

Analysis

During construction, operation, and decommissioning of the Proposed Project, there would be increased human activity and ignition sources at the Project site, including equipment that could create a spark or be a source of heat.

Operation and Maintenance

During operations and maintenance, the Proposed Project would introduce potential ignition sources that do not currently exist on the Project site. With these additional ignition sources, the risk of wildfire would be increased. The lack of steep terrain within the development footprint is beneficial and results in reduced fire intensity and slower fire spread rates. However, Santa Ana wind events have the potential to increase fire spread rates and these weather periods will be a focused fire prevention period whenever they occur, subject to onsite activity limitations that reduce the potential for accidental ignitions. Potential causes of wildfire associated with operations and maintenance of the Proposed Project include:

- Explosion/Arcs, arc flashing, electrical shorts, sparking, motor or other machinery fire, wiring and harnessing fire, overheated junction boxes, rodents chewing on wires and causing arcing, etc.
- Switchyard
- Employee and maintenance vehicles
- Collapse of supporting structures causing electrical shorts and fire
- Overgrown vegetative fuel under and around the array – the Project would minimize this potential fire hazard by managing its fuels
- Unauthorized equipment and supplies stored under arrays for shading – the Project would restrict storage under arrays
- Fire in an inverter
- Short circuit and fire of components in or on a panel
- Potential for sun reflection from panels igniting vegetation
- Illegal target practice or other vandalism or arson in a rural area
- Switchgear and cable fire

Fire risk associated with Proposed Project operations may result from the addition of new electrical equipment on site. Equipment such as the collector substation, switchyard, battery energy storage system, and other solar facility related infrastructure would be implemented for the Proposed Project. The Proposed Project facilities have been designed to minimize the risk of fire hazard as much as feasible as described below.

Battery Energy Storage System Design

Potential hazards associated with battery energy storage systems are primarily associated with the possibility of thermal runaway (similar to overheating) occurring from a malfunctioning or damaged battery. Newer battery technologies have minimized the occurrence of thermal runaway through a system of protections including internal cell monitoring and partitioning; use of non-flammable chemicals; container design and features; ventilation, and air-conditioning systems; and inert gas fire suppression systems.

The Proposed Project's battery energy storage system would have a maximum capacity of up to 90 MW, 180 MWh and would be located throughout the proposed solar facility. The battery energy system would include a total of up to 75 containers distributed at 25 locations within the solar facility (three containers at each location adjacent to inverter/transformer platforms). Figure 1-2 shows the location of the containers within the proposed solar facility. The battery system would be DC coupled with the PV system, connecting electrically at the DC bus of the inverters. The same inverters, transformers, medium voltage equipment, and AC wiring would all serve both the battery energy storage system and the PV system.

The Project proposes the use of customized steel containers to store banks of Lithium-ion batteries, which will enable on-site storage of solar energy produced by the Project. There are various types of Lithium-ion batteries available for use in this application. The specific battery type proposed for the Project is a Lithium-ion nanophosphate cell. Available data indicates that this particular type of Lithium-ion battery has proven to be less vulnerable to fire occurrences than typical Lithium-ion batteries. Lithium-ion nanophosphate batteries include a stable cathode chemistry that substantially reduces the possibility of thermal runaway and provides for reduced reaction from abuse (Sandia National Laboratories 2012).

The Proposed Project's battery storage would also include multiple levels of protections against overcharge. All battery components would be contained within an enclosed structure, avoiding contact with ignition sources and would not include liquids that could spill. The Project's steel containers would each hold Lithium-ion nanophosphate battery packs on racks throughout a large percentage of the container. Each container would have underground wiring connecting it to a 600 kW skid mounted DC:DC converter, which would bring the voltage from the strings of batteries in the containers up to match the voltage of the PV energy entering into the inverter's DC bus. The containers are typically made from the 12 to 14-gauge steel in shipping containers that measure approximately 55-feet-long, 19-feet-wide, and 10-feet-high. Each container would be separated from neighboring containers by approximately ten feet.

The proposed batteries and containers would also include the following important monitoring and safety components:

- Modular battery racks designed for ease of maintenance
- Integrated heat and fire detection and suppression system
- Integrated air conditioning system
- Integrated battery management system

The heat and fire detection system would be linked to an automatic inert gas suppression system within each container. The containers would also have a basic interior sprinkler system with several sprinkler heads for coverage and an external dry standpipe for fire fighters to connect and pump water.

Critical information from the battery system, equipment data from the DC:DC converters and inverters would be monitored by the battery monitoring system inside the containers, at the LV (1500V) metering at the inverter cabinets and at the power plant controller measured along with the solar plant performance with the Supervisory Control and Data Acquisition control system. The battery management system would track the performance, voltage and current, and state of charge of the batteries, proactively searching for changes in performance that could indicate impending battery cell failure. If an event is identified, the system powers down and isolates those battery strings in order to avoid potential failures and fire risks. If a fire event does occur, the battery energy storage system would activate its fire suppression system. The batteries would be located in a manner to avoid contact with other flammable sources; therefore, the most efficient way to control any fire would be to let it burn in place. Therefore, the battery energy storage system has been designed to minimize the risks of starting a fire.

Site Access

Site access driveways are necessary for the Proposed Project's development, but would also facilitate access by fire agencies. Access to the site has been designed per the County Fire Code. All Project site entrances off Old Highway 80 would be 24 feet wide and paved, and the access road to the switchyard site off Carrizo Gorge Road would be 30 feet wide and paved. The perimeter vehicle access within the fenced area would be constructed as suitable for fire access roads and would be constructed to a minimum width of approximately 24 feet. The interior on-site vehicle access would be constructed to a minimum improved width of 20 feet. All on-site vehicle access would be designed to provide a minimum inner turning radius of 28-feet, would be graded and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. The purpose of the internal access is to allow for two-way access of fire apparatus throughout the solar facility in order to

reach all of the inverter/transformer platforms and battery storage containers. The non-load-bearing surface material of the fire access roads would consist of an all-weather surface capable of supporting 75,000 pounds as required by County Fire Code. An access-controlled gate with a Knox Box would be installed at all access driveways to allow ease of access for fire authorizes.

Defensible Space and Fuel Management

Targeted fire prevention measures would be implemented within the solar facility to reduce the potential for ignitions, and defensible space and fuel management would be provided. For example, the perimeter of the solar facility would be fenced and all vegetation within the fenceline would be managed to reduce fire risk, substantially reducing the fuels available to be ignited within the fenced facility. The Proposed Project would provide defensible space by setting back all PV modules a minimum of 30 feet from the solar facility's perimeter fence. The perimeter Fuel Modification Zone (FMZ) buffer would include at least 30 feet of modified fuels and the perimeter fire access. Fuels throughout the solar facility would be maintained to a six-inch height. Defensible space around all electrical equipment would be provided by an FMZ buffer of 100 feet surrounding the collector substation pad area and 100 feet surrounding the adjacent switchyard.

After construction of the Proposed Project, fires from off-site sources would not have continuous fuels across the solar facility and would therefore be expected to burn around and/or over the site via spotting. Burning vegetation embers may land on Project structures, but are not likely to result in ignition based on ember decay rates and the types of non-combustible and ignition resistant materials that would be used on site. Ignition resistant materials of glass, steel, aluminum and decomposed granite would provide resistance to ignitions from embers. Understory fuels would be maintained at roughly six inches, so ignitions in the ground cover from embers would produce a fast moving, but low intensity fire through the highly compartmentalized fuel modification areas beneath the PV modules. Further, six 10-gallon water storage tanks with fire department connections would be provided on site, with one tank at each entrance and one tank near the substation.

While the Proposed Project has been designed to minimize the risk of fire hazards to the extent feasible and will have minimal occupation during operation, the Project does propose new electrical equipment that could exacerbate wildfire risks and thereby expose project occupants to a risk of loss, injury or death involving wildland fires. Therefore, the Proposed Project's operational-related impacts are considered **potentially significant (Impact HAZ-1)**.

Construction and Decommissioning

An increase in the risk of wildland fire on the Project site would occur during construction and decommissioning when there is the largest amount of fuel on the site and increased activity

combined with a greater number of ignition sources on the site. Potential ignition sources during construction and decommissioning related activities include the following:

- Earth-moving equipment – create sparks, heat sources, fuel or hydraulic leaks, etc.
- Chainsaws – may result in vegetation ignition from overheating, spark, fuel leak, etc. Chainsaws should be fueled and maintained only in areas away from combustible fuels.
- Vehicles – heated exhausts/catalytic converters in contact with vegetation may result in ignition
- Welders – open heat source may result in metallic spark coming into contact with vegetation
- Wood chippers – include flammable fuels and hydraulic fluid that may overheat and spray onto vegetation with a hose failure
- Compost piles – large piles that are allowed to dry and are left on-site for extended periods may result in combustion and potential for embers landing in adjacent vegetation
- Grinders – sparks from grinding metal components may land on a receptive fuel bed
- Torches – heat source, open flame, and resulting heated metal shards may come in contact with vegetation
- Other human-caused accidental ignitions – ignitions related to discarded cigarettes, matches, temporary electrical connections, inappropriately placed generators, poor maintenance of equipment, and others.

All Project components would be decommissioned except the switchyard and connection to the SDG&E transmission line that would be owned and operated by SDG&E. All decommissioning would occur within the development footprint and disturbance limits of the Proposed Project. The aboveground (detachable) equipment and structures would be disassembled and removed from the site. Detachable elements include all PV 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. Similar to construction of the Proposed Project, during decommissioning of the Project, there would be increased human activity and ignition sources, including equipment that could create spark, be a source of heat, or leak flammable materials on the Project Site.

Thus, impacts exposing project occupants to potential risk of loss, injury or death involving wildland fires during construction and decommissioning of the Proposed Project would be **potentially significant (Impact HAZ-2)**.

Switchyard

The switchyard component of the Proposed Project is located adjacent to the on-site collector substation and would be an un-staffed facility, except in cases of maintenance and repair activities. At the end of the construction phase, the operation and maintenance of the switchyard would be transferred to SDG&E, where the switchyard would be subject to fire prevention measures consistent with SDG&E. In addition, a robust fire prevention program that focuses on minimizing the potential for fire ignitions would be followed.

While the switchyard operation would be designed to minimize the risk of wildfire to the extent feasible, the amount of electrical equipment that would be present of the site would be increased as compared to existing conditions. Therefore, the operational impacts to expose project occupants to risk of loss, injury or death involving wildland fires would be **potentially significant (Impact HAZ-1)** during the switchyard's operation. In addition, during the switchyard's construction, the amount of ignition sources on the switchyard site would be increased and impacts exposing project occupants to risk of loss, injury or death involving wildland fires would be **potentially significant (Impact HAZ-2)**.

2.6.4 Cumulative Impact Analysis

The cumulative study area for potential contamination impacts is limited to the areas immediately surrounding the Project site (approximately a 1,000-foot buffer); however, regarding the transport, storage, and use of hazardous materials, the cumulative study area would be all of rural southern San Diego. For airport hazards the cumulative study area would be the general region and would include any other project that has the potential to impede flight paths, restrict emergency response via aircraft, or interfere with navigable airspace (taller than 200 feet). For emergency response, the cumulative study area would be the SDCFA and/or CAL FIRE jurisdictional boundaries.

2.6.4.1 Listed Hazardous Sites

As discussed in Section 2.6.3.1, Listed Hazardous Sites, the Project site is not located on a hazardous material site listed under Government Code Section 65962.5 or a FUDS site. Additionally, the Project site is not impacted by nearby sites. Therefore, the Proposed 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. Compliance would be required by other nearby cumulative projects with potentially hazardous existing contamination, which would be handled on a project-by-project basis. Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** related to hazardous sites.

2.6.4.2 Landfill Hazards

The Proposed 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. Therefore, the Proposed Project **would not contribute to a cumulatively considerable contribution** related to landfill hazards.

2.6.4.3 Hazardous Materials

Potential hazards identified on or adjacent to the Project site include hazardous building materials (asbestos and lead-based paint), a nearby gasoline station with known groundwater contamination, and storage of large quantities of hazardous materials (during operation of the Proposed Project). Existing environmental conditions (i.e., local depth to groundwater greater than 70 feet bgs), and strict adherence to federal, state, and local regulatory requirements for asbestos and lead-based paint abatement make these potential hazards less than significant.

Other cumulative projects, including each of those listed in Table 1-4, Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects (Chapter 1), would similarly 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. Therefore, the Proposed Project would not have a cumulatively considerable contribution to any potential cumulative impact related to hazardous sites contamination.

Additionally, as stated previously, during construction, operation and maintenance, and demolition of the Proposed 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 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 (Chapter 1) 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 Proposed Project. The Proposed 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 Proposed Project and cumulative projects would not pose a hazard to the public or environment, and **impacts would not be cumulatively considerable**.

The Project site is not located within 0.25 miles 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). Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** relative to emissions of regulated substances subject to CalARP risk management plan requirements.

2.6.4.4 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 adornments. None of the cumulative projects are located within the Jacumba AIA, therefore, they would not cumulatively contribute to airport hazards. In addition, none of the cumulative projects would be considered noise-sensitive land uses that would be exposed to airport noise; therefore, the projects would not result in excessive noise for people residing or working in the Project area. With compliance with FAA regulations through Form 7460-1, the Proposed Project 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; therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** associated with airport hazards.

2.6.4.5 Hazards Associated with Interference with Emergency Responses

Cumulative projects in the nearby area would have the potential to impair existing emergency and evacuation plans during construction. 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. The Project and other and other development in the cumulative study area would increase the ignition sources in the Project area, but would not result in substantial permanent increases in population. The impacts **would not be cumulatively considerable** in regard to interference with emergency responses.

2.6.4.6 Demolition of Hazardous Material-Containing Structures

The Proposed Project includes demolition of existing structures. Asbestos Building Inspection and Lead-Based Paint Testing was conducted for existing structures and determine that some structures contained asbestos and/or lead. State and local regulations require the removal of these materials

by a certified abatement contractor, thus impacts would be less than significant. Similar compliance would be required by other nearby cumulative projects with potentially hazardous existing contamination, which would be handled on a project-by-project basis. Therefore, the impacts **would not be cumulatively considerable**.

2.6.4.7 Wildland Fire Hazards

The wildfire risk in the vicinity of the Project site has been analyzed and it has been determined that wildfires are likely occurrences, as discussed in the Project's FPP (Appendix N). It is also possible that construction schedules for other projects, should they be approved, would overlap with the Proposed Project's construction schedule. As described above, Proposed Project construction and operation introduces potential ignition sources and additional electrical equipment that does not currently exist on the Project site. Equipment on the Project site that may be ignition sources during the Proposed Project's construction, operation, and decommissioning represents a risk of sparking or igniting nearby fuels, particularly with off-site flammable vegetation and during high wind conditions. Therefore, the Proposed Project, in combination with cumulative projects, **would result in a cumulatively considerable impact to wildfire hazards (Impact HAZ-CU-1)**.

2.6.5 Significance of Impacts Prior to Mitigation

Listed Hazardous Sites

This analysis of hazardous materials sites is based on the Phase I ESAs in Appendix G for the Project site. While the Phase I ESAs found that the Project site is adjacent to listed contaminated sites, it is not expected that, due to environmental conditions, groundwater gradient, and characteristics of the off-site contamination, these off-site sources have affected or will affect the Project site. Therefore, the implementation of the Proposed Project would result in **less than significant impacts** associated with hazardous materials.

Landfill Hazards

No impacts would occur related to proximity to open, abandoned, or closed landfill, or trash burn sites; therefore, the impact would be **less than significant**.

Hazardous Materials

The Proposed Project would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not handle regulated substances within 0.25 miles of an existing or proposed school or daycare facility. Previously identified asbestos and lead-based paint would be removed by a certified abatement contractor in accordance with CalOSHA, California Department of

Public Health, and San Diego County Air Pollution Control District. Therefore, these materials would be abated in accordance with federal, state, and local regulations prior to demolition or construction on the Project site. With the exception of mineral oil storage and the battery energy storage system, the Proposed Project would not handle or store hazardous substances in excess of the threshold quantities listed in H&SC Chapter 6.95. Mineral oil reservoirs in the step-up transformer would be 6,000-gallon capacity, and would therefore require an HMBP. Should the battery storage system trigger requirements of H&SC Chapter 6.95, they too would be included in the HMBP. Within inclusion of the HMBP, the Proposed Project would be in compliance with all applicable hazardous substance regulations. The Proposed Project would be in compliance with applicable hazardous substance regulations and would not generate hazardous waste regulated under H&SC Chapter 6.5, and/or store hazardous substances in underground storage tanks regulated under H&SC Chapter 6.7. The Proposed Project would not be located within 0.25 miles of a school or daycare facility. Therefore, impacts would be **less than significant**.

Airport Hazards

As discussed above, the Proposed Project is located adjacent to the Jacumba Airport, and is subject to the ALUCP, FAA regulations. The Proposed Project would comply with FAA regulations through Form 7460-1 and would not conflict with the ALUCP. The Proposed Project may result in brief periods of glare potential immediately west of the facility shortly after sunrise and immediately east of the facility shortly before sunset at specific times of the year. The solar facility would be directed southwards toward the sun and include PV technology that is designed to maximize absorption and avoid reflectivity of solar light to realize the greatest potential conversion to electricity. The proposed solar panels would be uniformly dark in color, non-reflective, and designed to be highly absorptive of all light that strikes their glass surfaces. Potential glare visible from the proposed solar operations would be limited to the Jacumba Airport Runway 7 approach (i.e., west approach) during the afternoon hours of the winter months lasting for less than one hour per day. Based on the analysis in the Glare Study (Appendix A to Appendix B, Visual Resources Report), the Proposed Project and more specifically, Proposed-Project-generated glare, would not substantially affect the daytime views of pilots on the Jacumba Airport Runway 7 approach. Therefore, Proposed-Project-generated glare impacts would be less than significant. In addition, the Proposed Project would not result in excessive noise for people residing or working in the Project area due to proximity to the Jacumba Airport. Therefore, the Proposed Project impact on airport hazards or air traffic in the area would be **less than significant**.

Hazards Associated with Interference with Emergency Responses

The Proposed Project would not conflict with an adopted emergency response plan or evacuation plan; thus, there would be **no impact** to an adopted plan. Further, the Proposed Project would be an unmanned facility and the increase in up to 500 workers and vehicles on site would be

temporary during the construction period. In addition, the Proposed Project would not exceed emergency response objectives identified in the Safety Element of the County General Plan; therefore, the project's impacts to the emergency response objectives identified in the Public Facilities Element of the County General Plan as a result of the Proposed Project would be **less than significant**. Finally, the Proposed Project does include five 70- to 115-foot-high transmission poles; thus there would be a structure 100 feet or greater in height; however, the poles are not located on a peak, ridgeway or other location where no structures or towers of similar height already exist. The poles would be located immediately south of the existing transmission corridor that contains several 150-foot-high-plus transmission towers and poles. Further, the Proposed Project would comply with FAA regulations through notification and Form 7460-I, and as a result, the Proposed Project would not cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response and impacts would be **less than significant**.

Demolition of Hazardous Material-Containing Structures

Existing structures on a parcel within the Project site (APN 661-060-12) were tested for lead paint and asbestos (Appendix H). Per the findings of the Asbestos Building Inspection and Lead-Based Paint report, there are numerous areas within and around the existing structures that tested positive for asbestos and lead-based paint. In accordance with CalOSHA, 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. Therefore, impacts related to hazardous materials as a result of demolition of on-site structures would be **less than significant**.

Wildland Fire Hazards

While the Proposed Project has been designed to minimize the risk of fire hazards to the extent feasible and will have minimal occupation during operation, the Project does propose new electrical equipment that could exacerbate wildfire risks and thereby expose project occupants to a risk of loss, injury or death involving wildland fires. Therefore, the Proposed Project's operational-related impacts are considered **potentially significant (Impact HAZ-1)** and mitigation would be required.

In addition, during construction and decommissioning impacts exposing project occupants to potential risk of loss, injury or death involving wildland fires would be **potentially significant (Impact HAZ-2)** and mitigation would be required.

Cumulative Impacts

Compliance would be required by other nearby cumulative projects with potentially hazardous existing contamination, which would be handled on a project-by-project basis. Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** related to hazardous sites.

The Project site is not located within 0.25 miles of a school and would not include the use of a regulated substance subject to CalARP risk management plan requirements. Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact**

With compliance with FAA regulations through Form 7460-1, the Proposed Project 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; therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** associated with airport hazards.

The Project and other and other development in the cumulative study area would increase ignition sources in the Project area, but would not result in substantial permanent increases in population. The impacts **would not be cumulatively considerable** in regard to interference with emergency responses.

Compliance would be required by other nearby cumulative projects with potentially hazardous existing contamination, which would be handled on a project-by-project basis. Therefore, the impacts **would not be cumulatively considerable**.

The Project, in combination with cumulative projects, would result in a **cumulatively considerable impact to wildfire risk (Impact HAZ-CU-1)**.

2.6.6 Mitigation Measures

Mitigation measures to reduce the significant impacts identified in this Hazards and Hazardous Materials analysis include **M-WF-1** (FPP), **M-WF-2** (CFPP), and **M-WF-3** (Fire Protection and Mitigation Agreement). Please refer to Section 2.12 Wildfire (Section 2.12.6) for the full text of these mitigation measures.

2.6.7 Conclusion

This section provides a synopsis of the conclusion reached in each of the impact analyses, and the level of impact that would occur after mitigation measures are implemented.

Listed Hazardous Sites

The Project site is not included on the Cortese List per Government Code 65962.5. A FUDS site is located within 1,000 feet of the Project site. A former LUST site is located 0.25 miles from the Project site. The LUST case was closed by San Diego County; however, residual contamination in groundwater could potentially impact the Project site if local groundwater flow direction changes. However, given the former LUST site is more than 2,000 feet from the nearest groundwater production well, and that the local depth to water of at least 40 feet bgs, it is not expected that potential migration of impacted groundwater to the Project site would create adverse conditions (e.g., vapor intrusion) for Project site workers/occupants. In addition, compliance with

existing regulations such as implementation of a SWPPP and applicable General Waste Discharge Requirements, would further ensure that impacts remain **less than significant**.

Landfill Hazards

The nearest open, abandoned, or closed landfill is the Jacumba Burn Dumps I and II site. The case was closed in 2010. As such, the Proposed Project would not be within 1,000 feet of an open, abandoned, or closed landfill, and the Proposed Project would not be within 250 feet of a parcel containing burn ash. **No impact** would occur.

Hazardous Materials

Hazardous building materials (asbestos and lead-based paint), currently present on the Project site, could cause a potentially significant impact during the Proposed Project's demolition of on-site structures. However, compliance with state and local regulations would be required. The demolition and removal of hazardous material containing structures would be handled by a certified abatement contractor as required by CalOSHA, the California Department of Public Health, and the San Diego County Air Pollution Control District. Therefore, hazardous building materials as a result of demolition of on-site structures would result in less-than-significant impacts. All other remaining elements of the Proposed Project would also be in compliance with all applicable federal, state, and local laws and regulations, and would be **less than significant**.

Airport Hazards

As described above, the Project site is adjacent to the Jacumba Airport, and is subject to FAA regulations. The Proposed Project would comply with FAA regulations through Form 7460-1 and would not conflict with the ALUCP. In addition, during the construction period and when routine maintenance is being performed, the Proposed Project would not result in excessive noise for people residing or working in the Project area. As such, the Proposed Project would have **less-than-significant impacts** on airports or air traffic in the area.

Hazards Associated with Interference with Emergency Responses

The Proposed Project would not interfere with an adopted emergency response or evacuation plan. The Project would meet the emergency response objectives identified in the Safety Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives. The 70- to 115-foot-tall 138 kV transmission line structure that is part of the Proposed Project would not be located on a ridgeline or peak, and it would be located where there is a number of existing steel transmission towers and poles of similar height. Further, the Proposed Project would not result in significant risks associated with aviation activities for emergency response as proposed towers are adjacent to existing towers of similar height. Impacts would therefore be **less than significant**.

Demolition of Hazardous Material-Containing Structures

Impacts related to hazardous materials as a result of demolition of on-site structures would be **less than significant**.

Wildland Fire Hazards

As presented in Section 2.6.3.7, Wildland Fire Hazards, anticipated impacts to wildfire risk during Project operations (**Impact WF-1**) would be potentially significant. With the implementation of **M-WF-1** (FPP) and **M-WF-3** (Fire Protection and Mitigation Agreement), as discussed further below, potential impacts to operational wildfire risk would be **less than significant**.

The FPP (Appendix N) would ensure compliance with applicable fire codes and wildfire-related regulations and provides fire protection measures to minimize fire risk. Further, a Technical Report for Fire Personnel has been developed and is included as Appendix G of the FPP. This Report provides information about the Proposed Project such that responding fire agency personnel and other first responders have an understanding of potential hazards associated with PV solar facility. The Report provides basic facility information for responding personnel so that they understand the potential site risks and what strategies, tools and equipment, and precautions are required for safely responding to emergencies.

The Project Developer will be required to participate in a Fire Protection and Mitigation Agreement with San Diego County/SDCFA. Fire Protection and Mitigation Agreements ensure funding for firefighting and emergency resources to comply with General Plan Safety Element Policy S-6.3 for new development, which requires development projects to contribute fair-share funding toward fire services. Funding provided by projects result in capital that can be used toward firefighting and emergency response improvements so that the County's firefighting agencies are able to perform their mission into the future at levels consistent with the General Plan.

Anticipated impacts during construction and decommissioning of the Proposed Project would be potentially significant (**Impact WF-2**). Implementation of mitigation measure **M-WF-2** (CFPP) would reduce this impact to **less than significant**. The CFPP is included as Appendix A of the FPP (Appendix N). The specific risk reduction measures and daily fire prevention measures to be implemented are listed in **M-WF-2**.

Cumulative Impacts

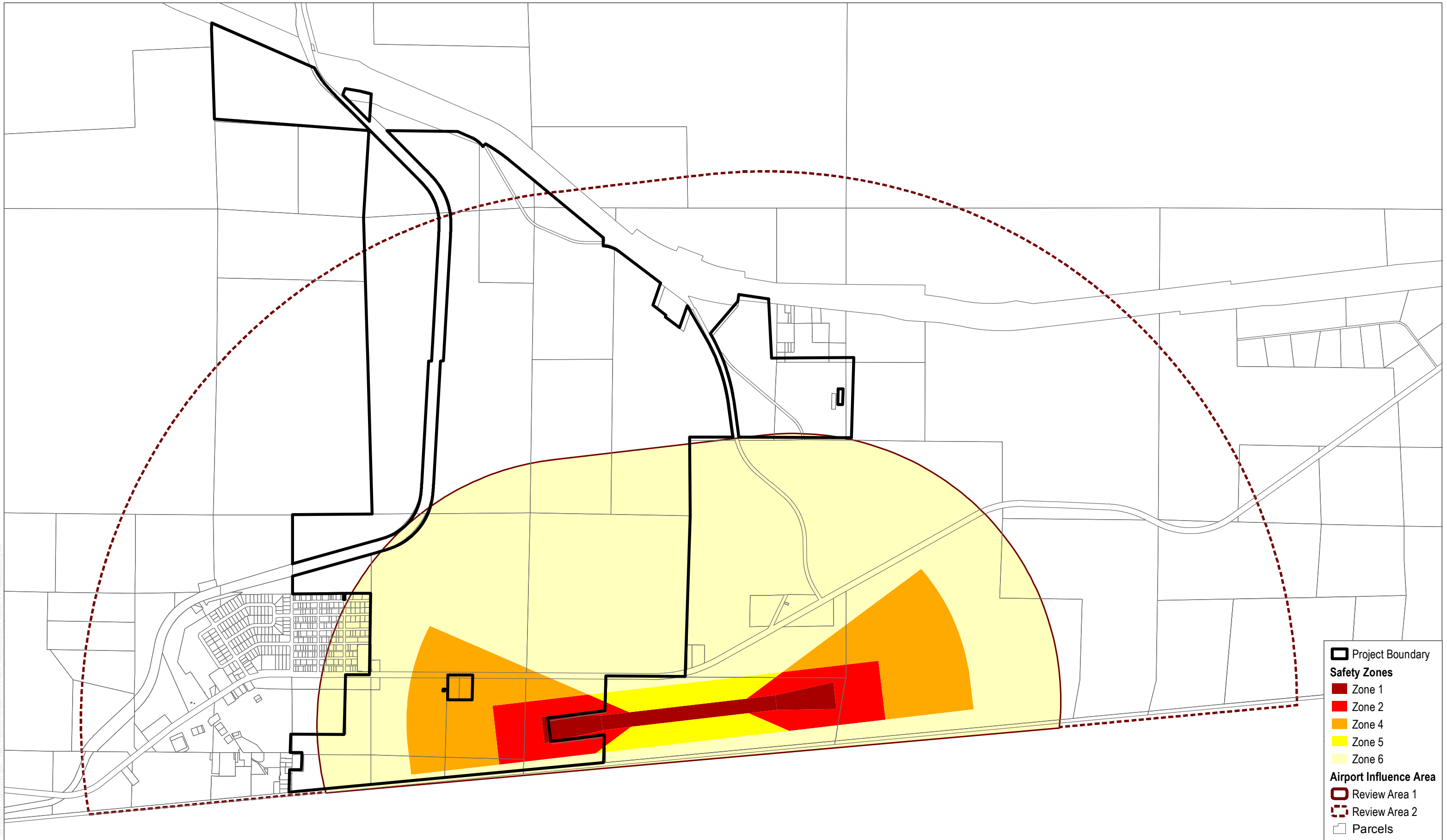
The Proposed Project **would not contribute to a cumulatively considerable impact** related to hazardous sites, landfill hazards, airport hazards, or demolition of hazardous material containing structures.

As presented in Section 2.6.4.7 above, the Project, in combination with cumulative projects, would result in a cumulatively considerable impact to wildfire hazard (**Impact HAZ-CU-1**). With implementation of mitigation measures **M-WF-1** (FPP), **M-WF-2** (CFPP), and **M-WF-3** (Fire Protection and Mitigation Agreement), the Project would result in a **less than significant cumulative impact**.

**Table 2.6-1
Online Database Listings**

Database	Details
California Environmental Protection Agency (CalEPA) Regulated Site Portal https://siteportal.calepa.ca.gov/nsite/	The CalEPA Regulated Site Portal is a website that combines data about environmentally regulated sites and facilities in California into a single, searchable database and interactive map. Data sources include California Environmental Reporting System (CERS), EnviroStor, GeoTracker, California Integrated Water Quality System (CIWQS), and Toxics Release Inventory (TRI).
Department of Toxic Substances Control (DTSC) EnviroStor https://www.envirostor.dtsc.ca.gov/	The DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons for further investigation.
Regional Water Quality Control Board (RWQCB) GeoTracker http://geotracker.waterboards.ca.gov/	The California RWQCB's data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, various unregulated projects, and permitted facilities. Sites include LUST, Department of Defense, Cleanup Program, Irrigated Lands, Oil and Gas Production, Permitted USTs, and Land Disposal Sites.
National Pipeline Mapping System (NPMS) https://www.npms.phmsa.dot.gov/	The NPMS Public Map Viewer is a web-based application designed to assist the general public with displaying and querying data related to gas transmission and hazardous liquid pipelines, liquefied natural gas plants, and breakout tanks under Department of Transportation Pipeline and Hazardous Material Safety Administration jurisdiction.

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- Project Boundary
- Safety Zones**
- Zone 1
- Zone 2
- Zone 4
- Zone 5
- Zone 6
- Airport Influence Area**
- Review Area 1
- Review Area 2
- Parcels

SOURCE: ALUCP 2018; SANGIS 2019



FIGURE 2.6-1

Project Location in Jacumba Airport Influence Area

Jacumba Valley Ranch Solar Energy Park Project EIR

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