3.1.4 Hazards and Hazardous Materials

This section discusses potential impacts relating to hazards and hazardous materials resulting from the implementation of the Proposed Project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical reports prepared for the Proposed Project, in conformance with the County Report Requirements or other applicable standards:.

- *Phase I Environmental Site Assessment for Tierra del Sol, Limited Phase II Environmental Site Assessment, Tierra del Sol Solar Farm Project, and Phase I Environmental Site Assessment for the Tierra del Sol Gen-tie* (Appendix 3.1.4-1)
- *Phase I Environmental Site Assessment of Approximately 765 Acres (Rugged Solar Farm site)* (Appendix 3.1.4-2)
- *Phase I Environmental Site Assessment of Approximately 225 Acres (LanEast Solar Farm site)* (Appendix 3.1.4-3)
- *Phase I Environmental Site Assessment of Approximately 60 Acres (LanWest Solar Farm site),* (Appendix 3.1.4-4)
- *Draft Fire Protection Plan, Tierra del Sol Solar Farm Project* (Appendix 3.1.4-5)
- *Fire Protection Plan Rugged Solar* (Appendix 3.1.4-6)
- *Construction Fire Prevention/Protection Plan Outline* (Appendix 3.1.4-7)
- *Soitec Solar Portfolio Project, Emergency Service Capabilities Assessment and Cumulative Impact Mitigation Report* (Appendix 3.1.7-1).

For a discussion on the Proposed Project's impacts on public services, such as fire and emergency response capabilities, refer to Section 3.1.7 Public Services.

This section is divided into an analysis of potential hazards to public safety and the environment related to hazardous materials, airports, emergency response and evacuation plans, and wildland fire. The discussion of hazards and hazardous materials describes sites with known hazardous materials contamination, sites with potential hazardous materials contamination, hazardous materials transportation, hazardous materials disposal, and hazardous materials release threats. The discussion of airports examines existing airport facilities and potential operational hazards within the County of San Diego (County), and specifically within the Proposed 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 the County. The wildland fires analysis examines fire threat hazards, the potential for wild fires in the Proposed Project area, and wildland–urban

interface (WUI) areas. Additionally, information contained in the previously listed technical reports was used in the preparation of the analysis below.

Recognizing there is a great deal of public interest and concern regarding potential health effects and hazards from exposure to electric and magnetic fields (EMFs), this section also provides information regarding these potential issues. However, this section does not consider EMFs in the context of the California Environmental Quality Act (CEQA) for determination of environmental impact because there is no agreement among scientists that EMFs create a health risk and because there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information is presented for the benefit of the public and decision makers.

3.1.4.1 Existing Conditions

This section describes the existing setting in the Proposed Project area and also identifies the resources that could be affected by the Proposed Project.

3.1.4.1.1 Regional Overview

The Proposed Project is located in a rural area with a history of agriculture, burning of refuse, and dumping, and with a high potential for wildland fire risk (CalFire 2012). Other potential hazards include exposure to hazardous materials through transportation and disposal of these materials, and air traffic hazards, and hazards associated with interference with emergency response. The conditions, as described below, pose the risk of exposure to hazardous materials or hazardous conditions on the site, or to/from adjacent sites.

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, Section 25501, defines a hazardous material as:

> Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material 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 Materials Associated with Historic Land Uses

A variety of historical land uses and conditions in the Proposed Project area or nearby sites could potentially result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historic land uses in rural areas that have the potential to result in current site contamination include:

- *Burn Dump Sites* – Burn ash refers to the debris, refuse, ash, and ash-contaminated soil that result from the open burning of municipal solid waste. Burn dump sites refer to locations where the open burning of solid waste occurred. Burn ash can be commingled with other solid wastes, including incompletely burned refuse. Burn ash may contain concentrations of heavy metals, such as lead, that may be a potential risk to human health and, if excavated, may need to be disposed as either a California or Resource Conservation and Recovery Act (RCRA) hazardous waste.
- *Landfills* – Active, abandoned, and closed landfills present potential issues related to the exposure of humans to hazards, such as landfill gas migration, when a project is proposed on or near a landfill site.
- *Historic Agriculture* – Agricultural activities include the application of fertilizers, herbicides, and pesticides that have the potential to contaminate soil and groundwater. Soils contaminated by past agricultural activities are a growing concern, generally because of land use changes involving proposed housing developments on former agricultural lands.
- *Petroleum* – Petroleum hydrocarbons are the most commonly used group of chemicals in society today. Petroleum hydrocarbons encompass a wide range of compounds, including but not limited to fuels, oils, paints, dry cleaning solvents, and non-chlorinated solvents. These compounds are used in all facets of modern life and can cause soil and groundwater contamination if not properly handled. Underground storage tanks (USTs) and aboveground storage tanks (ASTs) that store petroleum are common sources of contamination into soils and groundwater in the County. (County of San Diego 2011a)

Hazardous Waste Transportation

In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). The DTSC maintains a list of active registered hazardous waste transporters throughout the state. The process of transporting hazardous waste often involves transfer facilities. A transfer facility is any facility that is not an on-site facility that is related to the transportation of waste. These facilities include but are not limited to, loading docks, parking areas, storage areas, and other similar areas. Although not all transfer facilities hold hazardous waste, any operator of a facility that accepts hazardous waste for storage, repackaging, or

bulking must obtain formal authorization for those activities through the hazardous waste permit process. Hazardous waste transporters are exempt from storage facility permit requirements so long as they observe the limits on storage time and handling.

Hazardous Materials Disposal

Through the RCRA, Congress directed the Environmental Protection Agency (EPA) to create regulations that manage hazardous waste from "the cradle to the grave." Under this mandate, the EPA has developed strict requirements for all aspects of hazardous waste management, including the recycling, treatment, storage, and disposal of hazardous waste. Facilities that provide recycling, treatment, storage, and disposal of hazardous waste are referred to as treatment, storage, and disposal facilities (TSDFs). Regulations pertaining to TSDFs are designed to prevent the release of hazardous materials into the environment and are more stringent than those that apply to generators or transporters. Within the unincorporated County, multiple TSDF sites exist, such as those owned and operated by the U.S. military and the San Diego Gas and Electric (SDG&E) Company.

Airport Hazards

Airport Land Use Compatibility Plans (ALUCPs) are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. Airport safety zones are established for all public airports 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 over-flight safety, airspace protection, flight patterns, and land-use compatibility. Hazards associated with airports can have serious human safety and quality of life impacts. Aviation facilities provide a variety of aviation services to local residents, including civil aviation, government use, business flights, charter flights, flight schools, and helicopter operations.

The nearest registered airport is the Jacumba Airport located approximately 8.5 miles east of the Tierra del Sol site, approximately 7 miles southeast of the Rugged site, and approximately 5.5 miles southeast of the LanEast and LanWest sites. . 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. In 2011, 800 operations occurred at the Jacumba Airport. No aircraft are based at the Jacumba Airport (County of San Diego 2012a).

A private, nonregistered airstrip is located at Empire Ranch, at 1758 Jewel Valley Road, Boulevard approximately 3 miles northeast of the Tierra del Sol site, approximately 2.6 miles south of the Rugged site, and approximately 1.8 miles southwest of the LanEast and LanWest

sites,. The County has no permit history for the airstrip; therefore, it is considered an illegal use, and the land is under active code enforcement (CPUC and BLM 2011). The airstrip is no longer in use and will no longer be capable of being used. No further information or analysis is provided related to this airstrip.

Wildfire Hazards

A vast amount of the County's undeveloped lands support natural habitats such as grasslands, sage scrub, chaparral, and some coniferous forest. In the context of fire ecology, these areas are known as wildlands. Fire ecology research has shown that the natural fire regime for the shrublands and forests in the County was one of frequent small fires and occasional large fires. Modern society has interrupted and fractured the natural fire process by initiating fire suppression policies, introducing invasive plant species that burn readily such as eucalyptus trees, and building houses within or adjacent to wildland areas (WUI areas) such as the County's backcountry. Although fires can occur anywhere in the County, fires that begin in wildland areas pose a serious threat to personal safety and structures due to rapid spread and the extreme heat that these fires often generate. Past wildfires have taken lives, destroyed homes, and devastated hundreds of thousands of acres of the County's natural resources.

The Proposed Project is located in an area classified as Very High Fire Hazard Severity Zone by the California Department of Forestry and Fire Protection (CalFire) (Appendix 2.8-5). Fire hazard designations are based on topography, vegetation, and weather, amongst other factors that indicate the likelihood of wildfire occurrence. The Proposed Project sites are located in areas dominated by chaparral vegetation, which is a vegetation community that experiences occasional wildfire and can burn in an extreme manner under windy, dry conditions. The terrain on, and within the vicinity of the Proposed Project sites, is predominantly flat to gently rolling. The Proposed Project area, like all of inland San Diego County, is subject to seasonal weather conditions that can heighten the likelihood of fire ignition and spread. Santa Ana winds are winds originating from the Great Basin that create extreme fire weather conditions characterized by low humidity, sustained high speeds, and extremely strong gusts. These conditions can lead to extremely intense and fast moving fires that cannot be contained until winds shift or wane.

The County has a long history of wildland fires. As identified in an annual report produced by CalFire called "Wildfire Activity Statistics," the County is consistently listed among the top five counties in the state for both number of acres burned and dollar value of fire damage. In the County, fire season is typically defined from May through November, depending on variations in weather conditions. However, the threat of a wildland fire is always present and is influenced by weather conditions throughout the year. In 2011 there were 196 fires in San Diego County that burned a combined 17,439 acres, the largest amount of acres burned per County in California in 2011 (CalFire 2012).

The fire environment in southeastern San Diego County is considered one of several areas that are classified as "wildfire corridors." The wildfire corridor includes a consistent and continuous fuel bed that extends from extreme east County to the urban areas of Alpine, El Cajon, and Chula Vista to the west. Although the area is subject to occasional wildfire ignitions, including the September 2012 Shockey Fire in the direct vicinity of the Proposed Project, a large portion of the fuel bed has not burned in 40 or more years. This situation is considered to result in the potential for catastrophic wildfire under extreme weather conditions (Appendix 2.8-5).

Based on the region's fuels, fire history, and expected fire behavior, a high-intensity fire can be expected to occur in the Proposed Project area at some point in the future, whether it is started by natural or man-made causes. Fire behavior in the Proposed Project area can be extreme with intense heat, above average flame lengths, fast spread, and spotting, thus causing a hazard both on and off the Proposed Project sites. For information on fire protection services in the Proposed Project area, see Section 3.1.7 Public Services.

Hazards Associated with Interference with Emergency Responses

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

The County of San Diego Department of Environmental Health, Hazardous Incident Response Team (DEH-HIRT) is the local agency that is responsible for responding to chemically related emergencies or complaints. DEH-HIRT consists of 10 California State Certified Hazardous Materials Specialists. The team was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement. This team services all unincorporated San Diego County areas, 18 municipalities, 2 military bases, and 5 Indian reservations. There are over 400 responses a year in the DEH-HIRT operational area. DEH-HIRT responds jointly with the San Diego Fire-Rescue Department Hazardous Incident Response Team to investigate and mitigate chemically related emergencies or complaints. Emergency response activities include mitigation, containment, control actions, hazard identification, and threat evaluation to the local population and the environment. DEH-HIRT is also responsible for handling all after normal business hours complaints for the DEH (County of San Diego 2012b).

Emergency/Evacuation Plans

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural. Local governments have the primary responsibility for preparedness and response activities. In San Diego County, there is a

comprehensive emergency plan known as the Operational Area Emergency Plan as well as numerous stand-alone emergency plans, including the Multi-Jurisdictional Hazard Mitigation Plan. Potential hazards or events that may trigger an emergency response action in the County include earthquakes, tsunamis, floods, wildland fires, landslides, droughts, hurricanes, tropical storms and freezes. Emergency response actions could also be triggered from a hazardous material incident, water or air pollution, a major transportation accident, water, gas, or energy shortage, an epidemic, a nuclear accident, or terrorism.

3.1.4.1.2 Tierra del Sol

Hazardous Materials

As part of the Phase I and Limited Phase II Environmental Site Assessments prepared for Tierra del Sol solar farm and the Phase I Environmental Site Assessment for the Proposed Generator Tie Transmission Line (Appendix 3.1.4-1), a history of the Tierra del Sol site and gen-tie line alignment was compiled based on the review of historical aerial photographs and topographic maps, agency records, County Directory listings, building permit reports, and a site owner/representative interview. The research revealed that a residence has been present on the west central portion of the Tierra del Sol solar farm site since 1923. Household refuse was burned in the vicinity of the residence between 1930 and 1962. Orchards and gardens were present on the Tierra del Sol solar farm site from 1930 to 1956. Since it is possible that pesticides associated with the past agricultural use and heavy metals associated with the burned refuse on the site may persist in the on-site soils, sampling was conducted on the site in July 2012 by Dudek staff (Appendix 3.1.4-1). The sampling results indicate that the on-site soils do not have concentrations of heavy metals (including arsenic and lead), dioxins, or furans that would pose a hazard and require remediation. The sampling locations are shown on Figure 3.1.4-1, Tierra del Sol Solar Farm Site. Additionally, the records search conducted as part of the Phase I did not indicate that off-site sources of hazardous materials exist that would impact the Tierra del Sol solar farm site (Appendix 3.1.4-1).

The gen-tie route is approximately 6 miles in length and crosses a portion of 18 assessor's parcel numbers (APNs). The gen-tie route site consists of paved and unpaved roads as well as animal grazing areas and vacant land. Several of the APNs associated with the gen-tie route are/have been used for residential purposes and include groundwater wells and septic tanks in areas not proposed for the gen-tie alignment. No portion of the gen-tie route includes a groundwater well, septic system, chemical or petroleum storage, or an impacted fuel spill site (Appendix 3.1.4-1). Miscellaneous debris was observed on parcels associated with the gen-tie route. Surface soils within the San Diego and Arizona Railroad right-of-way (ROW) that is located on portions of the gen-tie route site may contain metals, polynuclear aromatic hydrocarbons (PAHs), petroleum products, pesticides, coal ash, or creosote (APN 658-051-08-00). Burn ash was observed on one

of the parcels, the Contasti property, due to a house that burned during a wildfire on the site (APN 658-051-07-00) (for APNs along the gen-tie route see Figure 3.1.4-2, Tierra del Sol Gen-Tie Line Alignment).

Airport Hazards

As stated above, the nearest registered airport is the Jacumba Airport located approximately 8.5 miles east of the Tierra Del Sol site..

Wildfire Hazards

As discussed above, the Tierra del Sol site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire (Appendix 3.1.4-5). Vegetation on the site and adjacent sites is dominated by chaparral species, which represent fuels that would spread wildfire on and off the site. Based on the region's fuels, fire history, and expected fire behavior, a high-intensity fire can be expected to occur in the area that would be considered a hazard to the site and surrounding properties (Appendix 3.1.7-1).

Hazards Associated with Interference with Emergency Responses

The site is primarily undeveloped with several uninhabited single story structures. Current development of the site does not interfere with implementation of emergency responses in the area.

3.1.4.1.3 Rugged

Hazardous Materials

A Phase I Environmental Site Assessment was conducted of the Rugged solar farm site (refer to Appendix 3.1.4-2). As part of the Phase I Environmental Site Assessment a site visit, regulatory research, historical records review, and environmental database search was conducted for the Rugged solar farm site. The Rugged site is currently being used by cattle and horses as grazing land, and has been used for agricultural grazing since at least 1953. The Rugged site also includes a stock pond, two pump houses with operable water wells, and a man-made reservoir in the central and northwestern portions of the site, and two non-operable water wells east of McCain Valley Road. A portion of the Rugged Solar Farm site located in the northeast portion of the property west of McCain Valley Road has been used as an SDG&E construction laydown area associated with construction of the overhead power lines. The locations of these on-site uses are shown on Figure 3.4.1-3, Rugged Solar Farm Site. During the site visit, no hazardous materials or petroleum products, monitoring wells, discolored soils, or unusual vegetative conditions were observed on the site. Additionally, no trash cans, dumpsters, or disposal areas were observed on the site. The records search did not reveal any recognized environmental conditions at the Rugged solar farm site or on adjacent sites (Appendix 3.1.4-2)

Airport Hazards

As stated above, the nearest registered airport is the Jacumba Airport located approximately 7 miles southeast of the Rugged site.

Wildfire Hazards

As discussed above, the Rugged site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire (Appendix 3.1.4-6). The Rugged site is mostly disturbed from on-site grazing, and includes areas of native and non-native vegetation. Based on the fuels on the site and on adjacent sites, the area's fire history, and expected fire behavior, a notable wildland fire threat exists for the site that would be considered a hazard to the site and surrounding properties (Appendix 3.1.7-1).

Hazards Associated with Interference with Emergency Responses

The site is currently used by cattle and horses as grazing land. Current use of the site does not interfere with implementation of emergency responses in the area.

3.1.4.1.4 LanEast

Hazardous Materials

A Phase I Environmental Site Assessment was conducted of the LanEast solar farm site (refer to Appendix 3.1.4-3). As part of the Phase I Environmental Site Assessment, a site visit, regulatory research, historical records review, and environmental database search were conducted for the LanEast site. The site is currently being used by cattle and horses as grazing land, and has been used for agricultural grazing since at least the early 1950s. There is a residence on the northern portion of the property, and a leased cabin/office in the central portion of the LanEast site. There are three water wells on the site, one associated with the residence, one associated with the cabin/office, and one in the central portion of the site that is currently being used to provide water to the grazing livestock on the site. During the site visit no hazardous materials or petroleum products, monitoring wells, discolored soils, odors or unusual vegetative conditions were observed on the site. A portion of the LanEast site, located to the east of McCain Valley Road and south of the unpaved access road that traverses the center of the site, was previously used to dump corrugated metal parts and other municipal debris (As shown on Figure 3.1.4-4, LanEast and LanWest Solar Farm Sites). In 2009 the trash was removed and transported to a local landfill, and the site was graded and compacted. The records search did not reveal any recognized environmental conditions at the LanEast site or on adjacent sites (Appendix 3.1.4-3).

Airport Hazards

As stated above, the nearest registered airport is the Jacumba Airport located approximately 5.5 miles southeast of the LanEast site..

Wildfire Hazards

The LanEast solar farm site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire. Similar to the other solar farm sites, the LanEast site includes areas of native and non-native vegetation as well as disturbed areas from on-site grazing. Based on the fuels on the site and on adjacent sites, the area's fire history, and expected fire behavior, a notable wildland fire threat exists for the site that would be considered a hazard to the site and surrounding properties (Appendix 3.1.7-1).

Hazards Associated with Interference with Emergency Responses

The site is currently developed with a residence and a cabin/office and is used for agricultural grazing. Current use of the site does not interfere with implementation of emergency responses in the area.

3.1.4.1.5 LanWest

Hazardous Materials

A Phase I Environmental Site Assessment was conducted on the LanWest solar farm site (refer to Appendix 3.1.4-4). As part of the Phase I Environmental Site Assessment, a site visit, regulatory research, historical records review, and environmental database search was conducted for the LanWest site. The site is currently being used by cattle and horses as grazing land, and has been used for agricultural grazing since at least 1953. There is evidence of a former residence (a chimney and a stormwater catch basin) on the central portion of the property, and a leased cabin/office in the central portion of the site. During the site visit, no hazardous materials or petroleum products, monitoring wells, discolored soils, or unusual vegetative conditions were observed on the site. The records search did not reveal any recognized environmental conditions at the solar farm site or on adjacent sites (Appendix 3.1.4-4).

Airport Hazards

As stated above, the nearest registered airport is the Jacumba Airport located approximately 5.5 miles southeast of the LanWest site.

Wildfire Hazards

The LanWest solar farm site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire. The LanWest site is mostly disturbed from on-site grazing, and includes areas of native and non-native vegetation. Based on the fuels on the site and on adjacent sites, the area's fire history, and expected fire behavior, a notable wildland fire threat exists for the site that would be considered a hazard to the site and surrounding properties (Appendix 3.1.7-1).

Hazards Associated with Interference with Emergency Responses

The site is currently used for agricultural grazing. Current use of the site does not interfere with implementation of emergency responses in the area.

3.1.4.2 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

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

Federal hazardous waste laws are generally promulgated under RCRA. RCRA establishes a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous wastes. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 (HSWA) 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, encouraged greater citizen participation in making decisions on how sites should be cleaned up, and increased the size of the trust fund to $8.5 billion.

Chemical Accident Prevention Provisions

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

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted in October 1986. EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. These concerns were triggered by the disaster in Bhopal, India, in which more than 2,000 people suffered death or serious injury from the accidental release of methyl isocyanate. To reduce the likelihood of such a disaster in the United States, Congress imposed requirements on both state and federally regulated facilities. EPCRA establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR 355 Appendix A). The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and

releases into the environment. In California, SARA Title III is implemented through the California Accidental Release Prevention (CalARP) program.

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. These agencies also govern permitting for hazardous materials transportation.

EPA Region 9, Preliminary Remediation Goals

Region 9 is the Pacific Southwest Division of the EPA, which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and over 140 Tribal Nations. Preliminary Remediation Goals (PRGs) are tools for evaluating and cleaning up contaminated sites. PRGs for the Superfund/RCRA programs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered to be protective for humans (including sensitive groups) over a lifetime. However, PRGs are not always applicable to a particular site and do not address non-human health issues such as ecological impacts. Region 9's PRGs are viewed as agency guidelines, not legally enforceable standards.

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 2010). 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 photovoltaics (PV), 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 airport.

- 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 (NEPA).
- 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.

As of June 26, 2012, the FAA is reviewing Section 3.1.2, Reflectivity, of the FAA Solar Guide, based on new information and field experience. The FAA cautions users against relying solely on this section at this time as it may be subject to change (FAA 2010).

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.

State Regulations

Hazardous Materials

Government Code Section 65962.5 (a), Cortese List

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the state, local agencies, and developers to comply with the CEQA requirements in providing information

about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Materials Business Plans

Per Article 1 of Chapter 6.95 of the California Health and Safety Code (Sections 25500–25520) requires that any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a Hazardous Materials Business Plan (HMBP). HMBPs are intended to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs. An HMBP includes three sections: (1) an inventory of hazardous materials, including a site map, which details their location; (2) an emergency response plan; and (3) an employee-training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility.

HMBPs are submitted to the Department of Environmental Health (DEH) Hazardous Materials Division (HMD). The plans must be resubmitted, reviewed, revised, or amended as necessary every 3 years. The HMBP must also be amended within 30 days whenever there are changes in the amount or location of stored hazardous chemicals on a site. The HMD conducts routine inspections at businesses required to submit business plans. The purpose of these inspections is to (1) ensure compliance with existing laws and regulations concerning HMBP requirements, (2) identify existing safety hazards that could cause or contribute to an accidental spill or release, and (3) suggest 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

Article 2 of Chapter 6.95 of the California Health and Safety Code (Sections 25531–25543.3) requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a Risk Management Plan (RMP). 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 California Accidental Release Prevention (CalARP) program. CalARP requires that an RMP include a hazard assessment program, an accidental release prevention program, and an

emergency response plan. The RMP must be revised every 5 years or as necessary. The majority of facilities or businesses in the County that have prepared RMPs are ammonia refrigeration facilities and water treatment and wastewater treatment plants that handle chlorine gas.

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

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

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

The UST monitoring and response program is required under Chapter 6.7 of the California Health and Safety Code and Title 23 of the California Code of Regulations (CCR). The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning USTs. The County DEH is the local administering agency for this program.

Title 27 of the CCR, Solid Waste

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

California Human Health Screening Levels

The California Human Health Screening Levels—CHHSLs or "Chisels"—are concentrations of 54 hazardous chemicals in soil or soil gas that CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be

assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

Senate Bill 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program

Senate Bill (SB) 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" that, 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 (Cal EMA) and includes response to hazardous materials incidents. Cal EMA coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife (formerly California Department of Fish and Game), Regional Water Quality Control Board, San Diego Air Pollution Control District, the City of San Diego Fire Department, and DEH-HIRT.

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.

Emergency Response

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-made 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 (NDAA) 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 NDAA is activated after the following occurs: (1) a local declaration of emergency; or (2) Cal EMA gives concurrence with the local declaration, or the governor issues a Proclamation of a State Emergency. Once the NDAA is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

Wildfire Protection

Title 14 Division 1.5 of the California Code of Regulations

CCR Title 14 Division 1.5 establishes the regulations for CalFire and is applicable in all State Responsibility Areas (SRA)—areas where CalFire is responsible for wildfire protection. Most of the unincorporated area of the County is an SRA, and any development in SRAs 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. San Diego County's most recent adoption of the Consolidated Fire Code (2011) was certified by the State Board of Forestry, indicating that its code requirements meet or exceed Title 14 Section 1270 et seq. and with that certification, the County Consolidated Fire Code supersedes Title 14 Section 1270 et seq. in the unincorporated areas of the County.

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.

Local Regulations

San Diego County, Site Assessment and Mitigation Program

The County DEH maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. The County SAM 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 CCR. SAM'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.

Jacumba Airport Land Use Compatibility Plan

The County of San Diego adopted the ALUCP for the Jacumba Airport in December 2006 and amended the Plan in 2011 (County of San Diego 2011b). ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. The Jacumba ALUCP defines an area around the airport known as the Airport Influence Area (AIA), which is established by factors including airport size, operations, and configuration, as well as the safety, airspace protection, noise, and over-flight impacts on the land surrounding an airport. The Proposed Project is not located within the AIA for Jacumba Airport. Therefore, the Proposed Project is not subject to the restrictions applicable to the AIA.

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 countywide plan that identifies risks posed by natural and man-made 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 interjurisdictional coordination, and achieving regulatory compliance (County of San Diego 2010a).

Operational Area Emergency Plan

The Office of Emergency Services also implements the Operational Area Emergency Plan. The Operational Area Emergency Plan describes a comprehensive emergency management system which provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates concepts relating to various emergency situations, identifies components of a comprehensive emergency management system and describes the overall responsibilities for protecting life and property and assuming the overall well-being of the population. The plan contains 17 annexes detailing specific emergency operations for different emergency situations; in addition there are 7 stand-alone emergency plans (County of San Diego 2010b).

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 San Diego County Fire Authority (SDCFA), in partnership with CalFire, the Bureau of Land Management, and the U.S. Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from CalFire 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 of San Diego, 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 California Fire Code. 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 2011 Consolidated Fire Code (the most recent adoption), has been certified by the State Board of Forestry, resulting in its superseding Title 14 Section 1270 et seq. of the State Code of Regulations as it would otherwise apply within San Diego County.

County Required Fire Prevention in Project Design Standards

Following the October 2003 wildfires, the County incorporated a number of fire prevention strategies into the discretionary project review process for CEQA projects. One of the more significant changes is the requirement that the majority of discretionary permits (e.g., subdivision and use permits) in WUI areas prepare a Fire Protection Plan (FPP) for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions and fire history of the Proposed Project location. The plan addresses the following in terms of compliance with applicable codes and regulations including but not limited to: water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space and vegetation management.

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 that may occur at the Proposed Project sites are listed below.

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 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-3.3: Minimize Flammable Vegetation**. Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.
- **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-3.6: Fire Protection Measures.** Ensure that development located within fire threat areas implement measures that reduce the risk of structural and human loss due to wildfire.
- **Policy S-3.7: Fire Resistant Construction.** Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire threat areas.
- **Policy S-4.2: Coordination to Minimize Fuel Management Impacts**. Consider comments from CalFire, U.S. Forest Service, local fire districts, and wildlife agencies for recommendations regarding mitigation for impacts to habitat and species into fuel management projects.
- **Policy S-6.1: Water Supply.** Ensure that water supply systems for development are adequate to combat structural and wildland fires.
- **Policy S-6.3: Funding Fire Protection Services**. Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.
- **Policy S-6.4: Fire Protection Services for Development.** Require that development demonstrate that fire services can be provided that meet the minimum travel times identified in Table S-1 (Travel Time Standards) (20 minutes in the RL-40, 80, and 160 land use designations).
- **Policy S-6.5: Concurrency of Fire Protection Services.** Ensure that fire protection staffing, facilities and equipment required to serve development are operating prior to, or in

conjunction with, the development. Allow incremental growth to occur until a new facility can be supported by development.

- **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 a 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 Proposed Project sites are located within the Mountain Empire Subregional Plan and the Boulevard Subregional Planning Area Community Plan planning area boundaries. There are no policies relevant to hazards or hazardous materials in the Mountain Empire Subregional Plan. The policies from the Boulevard Subregional Planning Area Community Plan relevant to emergencies, hazards, and hazardous materials that may occur at the Proposed Project sites are listed below.

- **Policy LU 1.1.6.** Require landscaping in new development to emphasize the use of xeriscape design with native, drought-tolerant, and fire-resistant plants to conserve water resources and help prevent the spread of fire.
- **Policy CM 3.1.1** Require secondary fire access/egress routes to connect to a public road, when feasible.

3.1.4.3 Analysis of Project Effects and Determination as to Significance

The Proposed Project consists of four renewable energy solar farms in southeastern San Diego County. The following impact analysis has been separated into discussions for each of the four solar farms: Tierra del Sol (including the gen-tie route), Rugged, LanEast, and LanWest, as well as a combined discussion of the Proposed Project as a whole. For the purposes of this Program EIR, the Tierra del Sol and Rugged solar farms are analyzed at a project level, whereas the LanEast and LanWest solar farms are analyzed at a programmatic level as sufficient project-level data has not been developed at this time.

3.1.4.3.1 Hazardous Materials

Guidelines for the Determination of Significance

For the purpose of this Program EIR, the County's *Guidelines for Determining Significance: Hazardous Materials and Existing Contamination* (July 30, 2007) 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 Health and Safety Code (H&SC), generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC, and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP 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

Tierra del Sol

As discussed above, the Tierra del Sol solar farm site does not currently include contaminated soils that require remediation, and there are no nearby contaminated sites that would be considered potential sources of on-site contamination (Appendix 3.1.4-1). Grading activities

during construction are not expected to expose contaminated soils that would pose a health risk to those on the Tierra del Sol solar farm site or in the area. Additionally, once construction is complete, the Tierra del Sol solar farm site is not expected to pose a risk of exposure to hazardous materials from existing on- or off-site contamination. As discussed above, the gen-tie route is approximately 6 miles in length and crosses a portion of 18 APNs. Several of the APNs associated with the gen-tie route are or have been used for residential purposes and include groundwater wells and septic tanks in areas not proposed for the gen-tie alignment. No portion of the gen-tie route includes a groundwater well, septic system, chemical or petroleum storage, or an impacted fuel spill site (Appendix 3.1.4-1). Miscellaneous debris was observed on parcels associated with the gen-tie route. Surface soils within the San Diego and Arizona Railroad ROW that intersects portions of the gen-tie route may contain metals, PAHs, petroleum products, pesticides, coal ash, or creosote (APN 658-051-08-00). Burn ash was observed on one of the parcels, the Contasti property, due to a house that burned during a wildfire on the site (APN 658-051-07-00) (see Figure 3.1.4-2). Burn ash may contain elevated concentrations of metals. If the soils near the burn ash site on APN 658-051-07-00 or along the railroad ROW are disturbed during construction of the gen-tie line, workers could be exposed to hazardous materials in the soils. Therefore, the following project design feature (PDF), as listed in Table 1-10 of Section 1.0, Project Description, would be implemented in order to reduce potential risks to human health and the environment:

PDF-HZ-1 If soils within the railroad ROW or on APN 658-051-07-00 where burn ash was observed will be disturbed during construction of the gen-tie, a Phase II Site Assessment shall be prepared for these sites and submitted to the County of San Diego Department of Planning and Development Services. Soil samples from the railroad ROW shall be analyzed for metals, PAHs, petroleum hydrocarbons, pesticides, coal ash, and creosote. Soil samples from APN 658-051-07-00 shall be analyzed for metals and dioxins/furans. If concentrations of hazardous constituents exceed industrial screening levels, these sites shall either be avoided or remediated to California Human Health Screening Levels and/or Regional Screening Levels prior to issuance of building permits for the gen-tie.

During construction, operation and maintenance, and demolition of the Tierra del Sol solar farm, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the site. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such 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 (IFC), Title 22, CCR Title 27, and the County Consolidated Fire Code. The solar farm site would include the use and storage of limited

quantities of lubricants and cleaners that will be used to maintain the on-site equipment and facilities. The solar farm site would also include up to 1,000 gallons of diesel fuel, which is enough supply to operate two emergency generators for approximately 8 hours each (the project does not anticipate using both generators simultaneously, but each generator would likely have its own 400 to 500 gallon diesel fuel tank that would be located directly beneath the generator). Therefore, the Tierra del Sol solar farm would include the storage of over 55 gallons of a liquid hazardous material, and would prepare and submit an HMBP to the DEH Hazardous Materials Division prior to operations of the facility and every 3 years thereafter in compliance with Article of Chapter 6.95 of California Health and Safety Code and San Diego County Code Section 68.1113. With maintenance and implementation of the site-specific HMBP, as required by law, the risk of an accidental release of a hazardous material is substantially reduced, and the use of hazardous materials on the solar farm for their intended purpose is not expected to pose a hazard to the public or environment.

The proposed Tierra del Sol solar farm is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per CCR, Title 19, Division 2, Chapter 4.5). The nearest school is the Clover Flat Elementary School, located at 39639 Old Highway 80, approximately 4.5 miles north of the Tierra del Sol solar farm. As such, the Tierra del Sol solar farm would not expose a school or day care facility to regulated substances that could adversely affect children's health. .

Based on the analysis provided, the Tierra del Sol solar farm would comply with hazardous substance regulations, would not expose persons to hazardous materials (with incorporation of **PDF-HZ-1,** if necessary), and would not produce hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. Therefore, impacts would be **less than significant**.

Rugged

Similar to Tierra del Sol, the Rugged solar farm does not currently include contaminated soils that require remediation, and there are no nearby contaminated sites that would be considered potential sources of on-site contamination (Appendix 3.4.1-2). Grading activities during construction are not expected to expose contaminated soils that would pose a health risk to those on the Rugged solar farm or in the area. Additionally, once construction is complete, the Rugged solar farm is not expected to pose a risk of exposure to hazardous materials from existing on- or off-site contamination.

During construction, operation and maintenance, and demolition of the Rugged solar farm, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the site. Numerous federal, state, and local regulations exist that require strict

adherence to specific guidelines regarding the use, transportation, and disposal of such 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, IFC, Title 22, CCR Title 27, and the County Consolidated Fire Code. The solar farm site would include the use and storage of limited quantities of lubricants and cleaners that will be used to maintain the on-site equipment and facilities. The solar farm site would also include up to 1,000 gallons of diesel fuel, which is enough supply to operate two emergency generators for approximately 8 hours each (the project does not anticipate using both generators simultaneously, but each generator would likely have its own 400- to 500-gallon diesel fuel tank that would be located directly beneath the generator). The Tierra del Sol solar farm project would therefore include the storage of over 55 gallons of a liquid hazardous material, and would prepare and submit an HMBP to the DEH Hazardous Materials Division prior to operations of the facility and every 3 years thereafter in compliance with Article of Chapter 6.95 of California Health and Safety Code and San Diego County Code Section 68.1113. With maintenance and implementation of the site-specific HMBP, as required by law, the risk of an accidental release of a hazardous material is substantially reduced, and the use of hazardous materials on the solar farm site for their intended purpose is not expected to pose a hazard to the public or environment.

The proposed Rugged solar farm is not located within .025 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per CCR, Title 19, Division 2, Chapter 4.5). The nearest school is the Clover Flat Elementary School, located at 39639 Old Highway 80, approximately 1.5 miles southwest of the Rugged solar farm site. As such, the Rugged solar farm would not expose a school or day care to regulated substances that could adversely affect children's health. .

Based on the analysis provided, the Rugged solar farm would comply with all applicable hazardous substance regulations, would not expose persons to hazardous materials, and would not emit hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. Therefore, impacts would be **less than significant**.

LanEast

As stated above, the Phase I Environmental Site Assessment of the LanEast solar farm prepared by AECOM in December 2011 (Appendix 3.1.4-3) found no existing hazardous materials or contamination on the site or on adjacent properties. With no existing hazardous materials sites identified on or near the LanEast solar farm, it is unlikely that hazardous materials would be encountered during excavation at the site, or during future operations of the solar farm.

During construction, operation and maintenance, and demolition of the proposed solar farm, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the site. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such 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, IFC, Title 22, CCR Title 27, and the County Consolidated Fire Code. The solar farm site would include the use and storage of limited quantities of lubricants and cleaners that will be used to maintain the on-site equipment and facilities. The solar farm site would also include up to 1,000 gallons of diesel fuel, which is enough supply to operate two emergency generators for approximately 8 hours each (the project does not anticipate using both generators simultaneously, but each generator would likely have its own 400- to 500-gallon diesel fuel tank that would be located directly beneath the generator). The Tierra del Sol solar farm project would therefore include the storage of over 55 gallons of a liquid hazardous material, and would prepare and submit a HMBP to the DEH Hazardous Materials Division prior to operations of the facility and every 3 years thereafter in compliance with Article of Chapter 6.95 of California Health and Safety Code and San Diego County Code Section 68.1113. With maintenance and implementation of the site-specific HMBP as required by law the risk of an accidental release of a hazardous material is substantially reduced, and the use of hazardous materials on the solar farm site for their intended purpose is not expected to pose a hazard to the public or environment.

The proposed LanEast solar farm site is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per CCR, Title 19, Division 2, Chapter 4.5). The nearest school is the Clover Flat Elementary School, located at 39639 Old Highway 80, approximately 1.75 miles west of the LanEast solar farm site. As such, the LanEast solar farm would not expose a school or day care to regulated substances that could adversely affect children's health.

Based on the analysis provided, the LanEast solar farm would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not emit hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. Therefore, impacts would be **less than significant**.

LanWest

As stated above, the Phase I Environmental Site Assessment of the LanWest solar farm prepared by AECOM in December 2012 (Appendix 3.1.4.4) found no existing hazardous materials or contamination on the site or on adjacent properties. With no existing hazardous materials sites identified on or near the LanWest solar farm, it is unlikely that hazardous materials would be encountered during excavation at the site, or during future operations of the solar farm.

During construction, operation and maintenance, and demolition of the proposed solar farm, hazardous materials, such as petroleum products and maintenance chemicals, would be brought to and used on the site. Numerous federal, state, and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of such 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, IFC, Title 22, CCR Title 27, and the County Consolidated Fire Code. The solar farm site would include the use and storage of limited quantities of lubricants and cleaners that will be used to maintain the on-site equipment and facilities. The solar farm site would also include up to 1,000 gallons of diesel fuel, which is enough supply to operate two emergency generators for approximately 8 hours each (the project does not anticipate using both generators simultaneously, but each generator would likely have its own 400 to 500 gallon diesel fuel tank that would be located directly beneath the generator). The Tierra del Sol solar farm project would therefore include the storage of over 55 gallons of a liquid hazardous material, and would prepare and submit an HMBP to the DEH Hazardous Materials Division prior to operations of the facility and every 3 years thereafter in compliance with Article of Chapter 6.95 of California Health and Safety Code and San Diego County Code Section 68.1113. With maintenance and implementation of the site specific HMBP as required by law the risk of an accidental release of a hazardous material is substantially reduced, and the use of hazardous materials on the solar farm site for their intended purpose is not expected to pose a hazard to the public or environment.

The proposed LanWest solar farm site is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per CCR, Title 19, Division 2, Chapter 4.5). The nearest school is the Clover Flat Elementary School, located at 39639 Old Highway 80, approximately 1.5 miles west of the LanWest solar farm site. As such, the LanWest solar farm would not expose a school or day care to regulated substances that could adversely affect children's health.

Based on the analysis provided, the LanWest solar farm would comply with hazardous substance regulations, would not expose persons to hazardous materials, and would not emit hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. Therefore, impacts would be **less than significant**.

Proposed Project

As stated above, no existing hazardous materials or contamination are located on the Tierra del Sol, Rugged, LanEast or LanWest solar farms, or on adjacent properties. With no existing hazardous materials sites identified on or near the Proposed Project, it is unlikely that hazardous materials would be encountered during excavation at the sites or during future operations of the

solar farms. Hazardous materials may be present at two locations along the Tierra del Sol gen-tie route, and therefore, **PDF-HZ-1** is provided. With incorporation of **PDF-HZ-1**, the Proposed Project would not create a significant hazard to the public or environment involving the release of hazardous materials due to the site's location on a list of hazardous materials sites.

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. 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, IFC, Title 22, CCR Title 27, and the County Consolidated Fire Code. The Proposed Project would include the use and storage of limited quantities of lubricants and cleaners that will be used to maintain the on-site equipment and facilities. The Proposed Project would also each include up to 1,000 gallons of diesel fuel, which is enough supply to operate two emergency generators for approximately 8 hours each. The Proposed Project would, therefore, include the storage of over 55 gallons of a liquid hazardous material, and would prepare and submit a site specific HMBP to the DEH Hazardous Materials Division prior to operations of the facility and every 3 years thereafter in compliance with Article of Chapter 6.95 of California Health and Safety Code and San Diego County Code Section 68.1113. With maintenance and implementation of the site-specific HMBPs for each solar farm as required by law, the risk of an accidental release of a hazardous material is substantially reduced, and the use of hazardous materials on the Proposed Project for their intended purpose is not expected to pose a hazard to the public or environment.

The Proposed Project is not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per California Code of Regulations, Title 19, Division 2, Chapter 4.5). As such, the Proposed Project would not expose a school or day care to regulated substances that could adversely affect children's health.

Based on the analysis provided, the Proposed Project would not expose persons to hazardous materials, would comply with hazardous substance regulations, and would not emit hazardous emissions within 0.25 mile of an existing or proposed school or day care facility. Therefore, impacts would be **less than significant**.

3.1.4.3.2 Airport Hazards

Guidelines for the Determination of Significance

For the purpose of this Program EIR, the County's *Guidelines for Determining Significance: Airport Hazards* (County of San Diego 2007) applies to the direct and indirect impact analysis, as well as the cumulative impact analysis.

A significant impact would result if:

- Projects near airports not subject to an ALUCP or Comprehensive Land Use Plan (CLUP): The project is located within 2 miles of a public or public use airport or within 1 mile of a private airport, and proposes any of the following:
  - Residential densities inconsistent with the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Maximum Residential Density and as a result, the project may result in a significant airport hazard.
  - Non-residential land uses that exceed the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Maximum Non-Residential Intensity and as a result, the project may result in a significant airport hazard.
  - An incompatible use identified in the California Airport Land Use Planning Handbook's Safety Compatibility Criteria Guidelines for Safety Compatibility Zones – Prohibited Uses and as a result, the project may result in a significant airport hazard.
- 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

Tierra del Sol

As discussed above, the nearest registered airport is the Jacumba Airport located approximately 8.5 miles east of the Tierra del Sol 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. Because the Tierra del Sol solar farm is located over 2 miles from the Jacumba airport and outside of the AIA, the Tierra del Sol solar farm and gen-tie line would not cause a safety hazard associated with air traffic in the area.

Additionally, although not required, the FAA was notified of the Tierra del Sol solar farm through submittal of Form 7460 at the County's request in response to the FAA Solar Guide. 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 to the Tierra del Sol solar farm. However, as previously stated in Section 3.1.4.2, the FAA cautions users against relying on the reflectivity section as the FAA is reviewing it based on new information and field experience (FAA 2010). Additionally, the FAA Solar Guide specifically discusses PV and some other technologies, but does not

include any information regarding CPV technology. The San Diego FAA Flight Standards District Office was contacted to determine if there have been any additions to the FAA Solar Guide regarding CPV technology or new information related to reflectivity. The FAA San Diego office was not aware of the FAA Solar Guide and did not have a copy in their office (McNamara, pers. comm. 2013). There are no known updates to the FAA Solar Guide at this time. 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). The Tierra del Sol solar farm is not located near a landing strip and would not cause a significant impact to aircraft as a result of glare (Pfaff, pers. comm. 2013). Please refer to Section 2.1, Aesthetics, and Appendix 2.1-3 of this Program EIR for a discussion of glare relative to the Tierra del Sol solar farm. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation, dated September 25, 2013, was received from the FAA.

As such, the Tierra del Sol solar farm and gen-tie would have **no impact** on airports or air traffic in the area.

Rugged

As discussed above, the nearest registered airport is the Jacumba Airport located approximately 7 miles southeast of the Rugged solar farm. 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. Because the Jacumba Airport site is located over two miles from the Rugged solar farm and outside of the AIA, the Rugged solar farm would not cause a safety hazard associated with air traffic in the area.

Additionally, although not required, the FAA was notified of the Rugged solar farm through submittal of Form 7460 at the County's request in response to the FAA Solar Guide. 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 to the Proposed Project. However, as previously stated in Section 3.1.4.2, the FAA cautions users against relying on the reflectivity section as the FAA is reviewing it based on new information and field experience (FAA 2010). Additionally, the FAA Solar Guide specifically discusses PV and some other technologies, but does not include any information regarding CPV technology. The San Diego FAA Flight Standards District Office was contacted to determine if there have been any additions to the FAA Solar Guide regarding CPV technology or new information related to reflectivity. The FAA San Diego office was not aware of the FAA Solar Guide and did not have a copy in their office (McNamara, pers. comm. 2013). There are no known updates to the FAA Solar Guide at this time. It should also be noted that pursuant to the CFR, 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). The Rugged solar farm is not located near a landing strip and would not cause a significant impact to aircraft as a result of glare (Pfaff, pers. comm. 2013). Please refer to Section 2.1, Aesthetics, and Appendix 2.1-3 of this Program EIR for a discussion of glare relative to the Rugged solar farm. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation, dated September 25, 2013, was received from the FAA.

As such, the Rugged solar farm would have **no impact** on airports or air traffic in the area.

LanEast

As discussed above, the nearest registered airport is the Jacumba Airport located approximately 5.5 miles southeast of the LanEast solar farm. 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. Because the Jacumba Airport site is located over 2 miles from the LanEast solar farm and outside of the AIA, the LanEast solar farm would not cause a safety hazard associated with air traffic in the area.

Additionally, although not required, the FAA was notified of the LanEast solar farm through submittal of Form 7460 at the County's request in response to the FAA Solar Guide. 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 to the Proposed Project. However, as previously stated in Section 3.1.4.2, the FAA cautions users against relying on the reflectivity section as the FAA is reviewing it based on new information and field experience (FAA 2010). Additionally, the FAA Solar Guide specifically discusses PV and some other technologies, but does not include any information regarding CPV technology. The San Diego FAA Flight Standards District Office was contacted to determine if there have been any additions to the FAA Solar Guide regarding CPV technology or new information related to reflectivity. The FAA San Diego office was not aware of the FAA Solar Guide and did not have a copy in their office (McNamara, pers. comm. 2013). There are no known updates to the FAA Solar Guide at this time. 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). The LanEast solar farm is not located near a landing strip and would not cause a significant impact to aircraft as a result of glare (Pfaff, pers. comm. 2013). Please refer to Section 2.1, Aesthetics, and Appendix 2.1-3 of this Program EIR for a discussion of glare relative to the LanEast solar farm. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation dated September 25, 2013, was received from the FAA.

As such, theLanEast solar farm would have **no impact** on airports or air traffic in the area.

LanWest

As discussed above, the nearest registered airport is the Jacumba Airport located approximately 5.5 miles southeast of the LanWest solar farm. 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. Because the Jacumba Airport site is located over 2 miles from the LanWest solar farm and outside of the AIA, the LanWest solar farm would not cause a safety hazard associated with air traffic in the area.

Additionally, although not required, the FAA was notified of the LanWest solar farm through submittal of Form 7460 at the County's request in response to the FAA Solar Guide. 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 to the Proposed Project. However, as previously stated in Section 3.1.4.2, the FAA cautions users against relying on the reflectivity section as the FAA is reviewing it based on new information and field experience (FAA 2010). Additionally, the FAA Solar Guide specifically discusses PV and some other technologies, but does not include any information regarding CPV technology. The San Diego FAA Flight Standards District Office was contacted to determine if there have been any additions to the FAA Solar Guide regarding CPV technology or new information related to reflectivity. The FAA San Diego office was not aware of the FAA Solar Guide and did not have a copy in their office (McNamara, pers. comm. 2013). There are no known updates to the FAA Solar Guide at this time. 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). The LanWest solar farm is not located near a landing strip and would not cause a significant impact to aircraft as a result of glare (Pfaff, pers. comm. 2013). Please refer to Section 2.1, Aesthetics, and Appendix 2.1-3 of this Program EIR for a discussion of glare relative to the LanWest solar farm. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation, dated September 25, 2013, was received from the FAA.

As such, the LanWest solar farm would have **no impact** on airports or air traffic in the area.

Proposed Project

The Proposed Project is not located within the AIA of the Jacumba Airport and is not expected to pose a safety hazard to air traffic using this airport. In addition, the Proposed Project would not conflict with FAA rules or regulation, nor would it constitute a hazard. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation, dated September 25,

2013, was received from the FAA. Therefore, the Proposed Project would have **no impact** on airports or air traffic in the area.

3.1.4.3.3 Wildfire Hazards

Guidelines for the Determination of Significance

For the purpose of this Program EIR, the County's *Guidelines for Determining Significance: Wildland Fire and Fire Protection* (County of San Diego 2010c) applies 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 Wildland Fire and Fire Protection as a result of the project, in the absence of evidence to the contrary:

- The project cannot demonstrate compliance with all applicable fire codes.
- A comprehensive Fire Protection Plan has been accepted, and the project is inconsistent with its recommendations.

Analysis

Tierra del Sol

As stated above, the Tierra del Sol solar farm site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire (Appendix 2.8-5). Vegetation on the site and adjacent sites is dominated by chaparral species, which represent fuels that would spread wildfire on and off the site. Based on the region's fuels, fire history, and expected fire behavior, a high-intensity fire can be expected to occur in the area (Appendix 3.1.4-5), which poses a potentially significant hazard to those working on the site and in the surrounding area.

An increase in the risk of wildland fire on the site would occur during construction 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. Similarly, an increase in the risk of wildland fire would occur during decommissioning, when there is increased activity and ignition sources on the site. Potential ignition sources during construction and decommissioning include chain saws, wood chippers, grinders, torches, earth-moving equipment, and other vehicles, that could create sparks, be a source of heat or leak flammable materials, as well as dynamite and blasting materials, compost piles, and other human activities and waste that would increase the possibility of fire. Therefore, the following project design feature (PDF), as listed in Table 1-10 of Section 1.0, Project Description, would be implemented in order to reduce the risk of fire during construction:

PDF-HZ-2 The Proposed Project applicants would prepare a Construction Fire Prevention Plan (CFPP), and have the CFPP reviewed and approved by SDCFA and CalFire a minimum of 45 days prior to issuance of the first construction permit, such as a grading permit. The CFPP will identify potential sources of ignition and fuel during construction and decommissioning, and will detail the specific fire-prevention measures that will be employed during construction and decommissioning. Appendix 3.1.4-7 provides a conceptual outline for preparation of the CFPP.

Additionally, as noted in Section 2.13 of this Program EIR, **PDF-TR-1** through **PDF-TR-3** would ensure safe and efficient traffic flow in the area and on the Tierra del Sol site during construction activities, which would also ensure safe access to the site and surrounding properties by emergency responders.

During operations and maintenance the proposed solar farm and gen-tie line would introduce potential ignition sources that do not currently exist on the site. The equipment on the site that may be ignition sources during operation and maintenance includes: transformers, capacitors, electric transmission lines (including the Tierra del Sol gen-tie line), substations, vehicles, and gas- or electric-powered small hand tools. The site's inverters, solar panels, and trackers represent potential ignition sources that are considered to have low likelihood of causing fires. All of this equipment represents a risk of sparking or igniting nearby off-site flammable vegetation.

Additionally, the Tierra del Sol solar farm represents a potential challenge to fire fighters due to accessibility within the site. The site cannot typically provide code-consistent fire apparatus access for all structures, which results in some structures being farther than 150 feet from fire apparatus access roads. However, the site is accessible via smaller, lighter, and more maneuverable vehicles. Because the rural area fire stations often are staffed with volunteer firefighters, there may be challenges due to lack of appropriate training for effectively and safely responding around new technology solar farms. To reduce the risk of fire on the site and improve the effectiveness of an emergency response should a fire occur on-site, a site-specific Fire Protection Plan (FPP) for Tierra del Sol solar farm (Appendix 3.1.4-5) has been prepared, will be approved, and will be implemented. The FPP clarifies requirements of the San Diego County Consolidated Fire Code. Some of the requirements are as follows; for full list refer to Appendix 3.1.4-5:

1. **Access**

    a. Primary access road into the Operations and Maintenance (O&M)/switch station site and around the perimeter access road inside the fence shall be 20 feet wide.

b. Fire apparatus access must be provided to within 150 feet of any site habitable structures (O&M building).

c. Site driveways (travel ways) will be 12 feet wide occurring at 600 foot intervals. No facility appliance (including trackers, inverters) will be more than 300 feet from one of these fire apparatus driveways.

d. Turnouts (30-foot long pullouts with appropriate taper on each end) will be provided along each site "driveway," spaced about every 400 to 600 feet. Turnouts can be eliminated with permission of the fire marshal if sufficient technical data is provided indicating that the surface adjacent to the "driveway" will support fire apparatus for the life of the project.

e. Service drivable areas are to remain drivable for the life of the project. To maintain drivability, and to ensure surfaces do not become soft/powdery over time, service drivable areas will be treated with a soil binder, or similar substance.

f. Perimeter of projects to include 18 feet of cleared, drivable surface on outside of fence, and 20 feet of driveway/road inside of fence. This area will encompass most of the perimeter fuel modification zone.

g. Provide a hammerhead or similar turnaround outside the front gate.

2. Fencing/Gates/Signs

a. Provide pedestrian/man gates approximately every 750 feet along perimeter fences to enable firing operations.

b. Prefer chain with padlock for all gates except primary access gate where keypad or similar will be installed.

c. Primary access gate – keypad acceptable, but must also provide a Fire Marshal-approved access system.

d. Illuminated sign at primary access gate entry to include a motion sensor that activates light and/or reflective sign so headlights/flashlight will adequately illuminate. Prefer not to have sign illuminated all night.

3. Defensible Space

a. 50 feet of fuel modification around perimeter of Tierra del Sol site to include rock/gravel, no vegetative fuel.

b. Fuel modification throughout the site (whole site will include non-irrigated, low-growing ground cover maintained at roughly 6 inches).

c. Inverters that are not located on a fire access road will include 10 feet in all directions free of vegetation (landscape fabric with gravel over, for example).

d. Each tracker pole to include at base landscape fabric with gravel over similar to fire hydrant clear area of 36 inches in all directions.

4. Adequate Water Supply

a. The capacity of the water tanks at the facility will be based upon the demand for the fire sprinkler system for the O&M building (estimated to be less than 20,000 gallons for a 40-minute supply to a rural non-residence structure per the County Consolidated Fire Code, Table 903.3.2), plus hand lines, plus a reasonable allocation for water supply for fire engines to generate firefighting foam for 15 minutes at an application density of 0.16 gallon per minute per square foot from a hose line using a 3% AFFF concentrate, for use on an oil fire in transformer containment.

b. The width of the road at the water tank locations shall be at least 18 feet (travel width) plus an additional 10-foot width, for a distance of 50 feet, to allow for fire engine to park and connect to the tank, while leaving the road open. Tanks shall be labeled "Fire Water: 10,000 gallons" using reflective paint.

5. Specific Tierra del Sol Gen-Tie Requirements

a. The overhead gen-tie line will consist of non-combustible, steel poles that will be accessed from existing and newly-constructed roads.

b. The gen-tie line will consist of overhead and underground alignments. The 2.5 miles of underground facilities will be installed in a duct bank composed of nine 6-inch polyvinylchloride conduits placed in concrete. The overhead portion of the transmission line will be constructed on steel poles designed for extreme winds that meets or exceeds current California Public Utilities Commission (CPUC) standards.

c. The gen-tie line will have an overhead static wire to improve lightning performance.

d. Vegetation management around steel poles and overhead power lines will reduce fire danger. The vegetation within the gen-tie right-of-way will be cleared around steel poles a minimum of 48 inches up to 10 feet, and access roads will include fuel management along both edges, where not prohibited by environmental constraints.

Therefore, with implementation of **PDF-HZ-1, PDF-TR-1** through **PDF-TR-3,** and the Tierra del Sol FPP (Appendix 3.1.4-5), approved by the SDCFA, the Tierra del Sol solar farm would be in compliance with applicable fire codes; impacts would be **less than significant**.

Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential impacts associated with wildfire hazards.

Rugged

As stated above, the Rugged solar farm is located within an area classified as Very High Fire Hazard Severity Zone by CalFire (Appendix 3.1.7-6). Similar to the Tierra del Sol solar farm, an increase in the risk of wildland fire on the site would occur during construction and decommissioning, when there is increased activity and ignition sources on the site. **PDF-HZ-2** would require preparation of a CFPP; see above under Tierra del Sol for further details. Additionally, as noted in Section 3.1.8, **PDF-TR-1** through **PDF-TR-3** would ensure safe and efficient traffic flow in the area and on the site during construction activities, which would also ensure safe access to the site by emergency responders.

Similar to Tierra del Sol, once construction is complete, the Rugged solar farm would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, and electric transmission lines. To reduce the risk of fire on the site and improve the effectiveness of an emergency response should a fire occur on site, the Rugged FPP (Appendix 3.1.4-6) will be implemented. The FPP clarifies requirements of the San Diego County Consolidated Fire Code and would ensure that the Rugged solar farm would implement the same design measures as listed above for Tierra del Sol, except for Tierra del Sol gen-tie specific requirements.

Therefore, with implementation of **PDF-HZ-2, PDF-TR-1** through **PDF-TR-3**, and the site-specific FPP (Appendix 3.1.4-6), approved by the SDCFA, the Rugged solar farm would be in compliance with applicable fire codes; impacts would be **less than significant**.

Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential impacts associated with wildfire hazards.

LanEast

As stated above, the LanEast solar farm is located within an area classified as Very High Fire Hazard Severity Zone by CalFire. Similar to the Tierra del Sol site, an increase in the risk of wildland fire on the site would occur during construction and decommissioning, when there is increased activity and ignition sources on the site. **PDF-HZ-2** would require preparation of a CFPP; see above under Tierra del Sol for further details. Additionally, as noted in Section

3.1.8, **PDF-TR-1** through **PDF-TR-3** would ensure safe and efficient traffic flow in the area and on the site during construction activities, which would also ensure safe access to the site by emergency responders.

Once construction is complete, the LanEast solar farm would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, and electric transmission lines. In order to ensure adequate fire protection and emergency response is provided, the following PDF, as listed in Table 1-10 of Section 1.0, Project Description, would be implemented:

PDF-HZ-3 Prior to approval of a Major Use Permit, a site-specific fire protection plan shall be prepared and approved by the SDCFA . The plan shall be in compliance with the San Diego County Consolidated Fire Code and shall address Code requirements for access, fencing/gates/signs, defensible space, adequate water supply and emergency response.

With implementation of **PDF-HZ-2**, **PDF-HZ-3**, and **PDF-TR-1** through **PDF-TR-3,** the LanEast solar farm would be in compliance with applicable fire codes; impacts would be **less than significant**.

Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential impacts associated with wildfire hazards.

LanWest

As stated above, the LanWest Farm site is located within an area classified as Very High Fire Hazard Severity Zone by CalFire. Similar to the Tierra del Sol site, an increase in the risk of wildland fire on the site would occur during construction and decommissioning, when there is increased activity and ignition sources on the site. **PDF-HZ-2** would require preparation of a CFPP; see above under Tierra del Sol for further details. Additionally, as noted in Section 3.1.8, **PDF-TR-1** through **PDF-TR-3** would ensure safe and efficient traffic flow in the area and on the site during construction activities, which would also ensure safe access to the site by emergency responders. With implementation of **PDF-HZ-2** and **PDF-TR-1** through **PDF-TR-3** impacts associated with increased risk of wildland fire during construction and decommissioning would be **less than significant.**

Once construction is complete, the LanWest solar farm would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, and electric transmission lines. In order to ensure adequate fire protection and emergency response is provided, **PDF-HZ-3** would be implemented, as discussed previously for the LanEast site. With

implementation of **PDF-HZ-3,** the LanWest solar farm would be in compliance with applicable fire codes; impacts would be **less than significant**.

Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential impacts associated with wildfire hazards.

Proposed Project

As stated above, the Proposed Project is located within an area classified as a Very High Fire Hazard Severity Zone by CalFire. An increase in the risk of wildland fire would occur during construction and decommissioning, when there is increased activity and ignition sources on the sites. As discussed above, **PDF-HZ-2** would require preparation of a CFPP for each solar farm site. Additionally, **PDF-TR-1** through **PDF-TR-3** would ensure safe and efficient traffic flow in the area and on the Proposed Project sites during construction activities, which would also ensure safe access to the sites by emergency responders.

Once construction is complete, the Proposed Project would introduce potential ignition sources that do not currently exist on the site, such as solar panels, trackers, transformers, capacitors, and electric transmission lines. To reduce the risk of fire and improve the effectiveness of an emergency response should a fire occur, the Proposed Project would implement site-specific FPPs. Because adequate information for LanEast and LanWest is not currently available, such as the tracker layout and other design details, the implementation of **PDF-HZ-3** would ensure that a site-specific FPP is prepared for each of these solar farms in the future. FPPs have already been prepared for the Tierra del Sol and Rugged solar farms and would ensure the solar farms comply with the San Diego County Consolidated Fire Code and any other applicable fire codes. With implementation of **PDF-HZ-2, PDF-TR-1** through **PDF-TR-3,** site-specific FPPs for Tierra del Sol and Rugged, and **PDF-HZ-3** for LanEast and LanWest, the Proposed Project would comply with all applicable fire codes; impacts would be **less than significant.**

Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential impacts associated with wildfire hazards.

3.1.4.3.4 Hazards Associated with Interference of Emergency Responses

Guidelines for the Determination of Significance

For the purpose of this Program EIR, the County's *Guidelines for Determining Significance: Wildland Fire and Fire Protection* (County of San Diego 2010c) and for *Airport Hazards* (County

of San Diego 2007) 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 Wildland Fire and Fire Protection as a result of the 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.

Analysis

Tierra del Sol

During construction and decommissioning, access to the Tierra del Sol site and surrounding areas could be temporarily interrupted due to equipment deliveries and other construction-related traffic. However, **PDF-TR-1** through **PDF-TR-3** would ensure that a Traffic Control Plan and construction notification procedures would be implemented for the Tierra del Sol project by the construction contractor prior to construction start. The Traffic Control Plan and construction notification procedures would include provisions for construction times and safe passage for bicyclists, pedestrians, and buses to ensure safe and efficient traffic flow for all traffic in the immediate area and on the site, as well as safe access for emergency responders, during construction and decommissioning activities; refer to Section 3.1.8 of this Program EIR for further details. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. Appendix 3.1.4-7 provides a conceptual outline for preparation of the CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. These project design features would help to ensure that the project would not require the need for additional emergency response services during construction and decommissioning.

Once construction is complete, operation and maintenance activities would be limited to the Tierra del Sol project site and access on the site would be maintained pursuant to the FPP design measures as previously described. Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public

Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area.

The Tierra del Sol solar farm would include structures over 100 feet associated with the Tierra del Sol gen-tie. Structures or towers that are placed along ridgelines where no structures or towers of similar height already exist could present safety concerns for emergency response aircraft and could increase the risks associated with aviation activities for emergency response. The portion of the Tierra del Sol gen-tie alignment that would be overhead (approximately 3.5 miles of the total 6 miles) would consist of approximately 20–25 steel poles with a height of 125 feet to 150 feet. As indicated above, the Tierra del Sol solar farm and gen-tie would not conflict with FAA rules or regulation, nor would it constitute a hazard based on FAA review of Form 7460-1. In response to the submittal of Form 7460, A Determination of No Hazard to Air Navigation dated September 25, 2013, was received from the FAA.

Therefore, the Tierra del Sol solar farm would not result in significant risks associated with aviation activities for emergency response, and with implementation of **PDF-TR-1** through **PDF-TR-3, PDF-HZ-2, and PDF-PS-1**, impacts to emergency response and emergency evacuation plans would be **less than significant.**

Rugged

Similar to Tierra del Sol, during construction and decommissioning, access to the site and surrounding areas could be temporarily interrupted due to equipment deliveries, etc. As discussed above, **PDF-TR-1** through **PDF-TR-3** would ensure that a Traffic Control Plan and construction notification procedures would be implemented for the Rugged solar farm site by the construction contractor prior to construction start. The Traffic Control Plan would ensure safe and efficient traffic flow for all traffic, as well as access for emergency responders, in the immediate area and on the site during construction and decommissioning activities. The Traffic Control Plan would include provisions for construction times, and control plans for allowance of bicyclists, pedestrians, and bus access throughout construction. The Traffic Control Plan would also include provisions to ensure emergency vehicle passage at all times; refer to Section 3.1.8 of this Program EIR for further details. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. Once construction is complete operation and maintenance activities would be limited to the Rugged site and access on the site would be maintained pursuant to the FPP design measures as previously described. Additionally, it should be noted that the Proposed

Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area. No structures or towers over 100 feet are proposed as part of the Rugged solar farm. With implementation of **PDF-TR-1** through **PDF-TR-3, PDF-HZ-2,** and **PDF-PS-1**, impacts to emergency response and emergency evacuation plans would be **less than significant**.

LanEast

Similar to Tierra del Sol, during construction and decommissioning, access to the site and surrounding areas could be temporarily interrupted due to equipment deliveries, etc. As discussed above, **PDF-TR-1** through **PDF-TR-3** would ensure that a Traffic Control Plan and construction notification procedures would be implemented for the LanEast solar farm site by the construction contractor prior to construction start. The Traffic Control Plan would include provisions for construction times and safe passage for bicyclists, pedestrians, and buses to ensure safe and efficient traffic flow for all traffic, as well as access for emergency responders, in the immediate area and on the site during construction and decommissioning activities; refer to Section 3.1.8 of this Program EIR for further details. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. Once construction is complete, operation and maintenance activities would be limited to the LanEast site, and access on the site would be maintained pursuant to the FPP design measures that would be implemented under **PDF-HZ-3**. Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area. No structures or towers over 100 feet are proposed as part of the LanEast solar farm. With implementation of **PDF-TR-1** through **PDF-TR-3 PDF-HZ-1**, **PDF-HZ-3**, and **PDF-PS-1** impacts to emergency response and emergency evacuation plans would be **less than significant.**

LanWest

Similar to Tierra del Sol, during construction and decommissioning, access to the site and surrounding areas could be temporarily interrupted due to equipment deliveries, etc. As

discussed above, **PDF-TR-1** through **PDF-TR-3** would ensure that a Traffic Control Plan and construction notification procedures would be implemented for the LanWest solar farm site by the construction contractor prior to construction start. The Traffic Control Plan would include provisions for construction times and safe passage for bicyclists, pedestrians, and buses to ensure safe and efficient traffic flow for all traffic, as well as access for emergency responders, in the immediate area and on the site during construction and decommissioning activities; refer to Section 3.1.8 of this Program EIR for further details. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. Once construction is complete, operation and maintenance activities would be limited to the LanWest site and access on the site would be maintained pursuant to the FPP design measures that would be implemented under **PDF-HZ-3**. Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area. No structures or towers over 100 feet are proposed as part of the LanWest solar farm. With implementation of **PDF-TR-1** through **PDF-TR-3** and **PDF-HZ-3**, impacts to emergency response and emergency evacuation plans would be **less than significant.**

Proposed Project

During construction and decommissioning, access to the Proposed Project and surrounding areas could be temporarily interrupted due to equipment deliveries, etc. As discussed above, **PDF-TR-1** through **PDF-TR-3** would ensure that Traffic Control Plans and construction notification procedures would be implemented for the Proposed Project by the construction contractors prior to construction start. The Traffic Control Plans would ensure safe and efficient traffic flow for all traffic, as well as access for emergency responders, in the immediate area and on the Proposed Project sites during construction and decommissioning activities; refer to Section 3.1.8 of this Program EIR for further details. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning, and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. Once construction is complete, operation and maintenance activities would be limited to the Proposed Project sites and access on the sites would be maintained pursuant to the FPP design

measures that would be implemented as described above for the Tierra del Sol and Rugged solar farms (see Appendices 3.1.4-5 and 3.1.4-6 for further details), as well as under **PDF-HZ-3** for the LanEast and LanWest solar farms. Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area. As indicated above, structures over 100 feet associated with the Tierra del Sol overhead gen-tie alignment) would not result in significant risks associated with aviation activities for emergency response. With implementation of **PDF-TR-1** through **PDF-TR-3 PDF-HZ-2, PDF-HZ-3**, and **PDF-PS-1**, impacts to emergency response and emergency evacuation plans would be **less than significant.**

3.1.4.4 Cumulative Impact Analysis

The cumulative study area for hazards and hazardous materials would primarily focus on the immediate vicinity of the Proposed Project sites. Similar to other potential impacts, such as those related to geology and soils, risks related to hazards and hazardous materials are typically localized in nature since they tend to be related to on-site existing hazardous conditions and/or hazards caused by the Proposed Project's construction or operation.

3.1.4.4.1 Hazardous Materials

As stated above, the Phase I Environmental Site Assessments for the Tierra del Sol, Rugged, LanEast, and LanWest solar farms, and the Phase II Environmental Site Assessment for the Tierra del Sol solar farm site found no existing hazardous materials or contamination on the site. As discussed above, two parcels along the Tierra del Sol gen-tie route contain areas with potentially contaminated soils. However, with incorporation of **PDF-HZ-1**, impacts related to existing hazardous materials contamination are not anticipated. Other cumulative projects, including those listed on Table 1-12, would similarly be required to survey for potential areas of hazardous contamination, and if such areas were found, would be required to remediate any contaminated areas. Therefore, the Proposed Project, combined with other cumulative projects, **would not result in a cumulatively significant impact**.

Additionally, as stated above, 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 farm site for their intended purpose is not expected to pose a hazard to the public or environment. The cumulative projects, listed in Table 1-12, would also be subject to all applicable laws and regulations governing the use, storage, and disposal 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 Proposed Project sites are not located within 0.25 mile of a school and would not include the use of a regulated substance subject to CalARP RMP requirements (per 19 CCR Division 2, Chapter 4.5). Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact** relative to emission of regulated substance subject to CalARP RMP.

3.1.4.4.2 Airport Hazards

As discussed in Section 3.1.4.3.2, the Proposed Project would have no safety hazard impact associated with air traffic in the area, and therefore **would not contribute to any cumulative impacts associated with airport hazards**.

3.1.4.4.3 Wildfire Hazards

The cumulative study area for wildfire hazards is the Boulevard Fuelbed. The area is considered a fuelbed because fire burning within its boundaries has the potential to burn through the fuels area-wide. The Boulevard Fuelbed is located in the extreme southeastern corner of San Diego County and encompasses the majority of the projects listed in Table 1-12, Cumulative Projects. Nearby communities include Boulevard, Manzanita, and Jacumba, and are all considered communities at risk of wildfire (California Fire Alliance 2010; CalFire 2001). Terrain varies throughout the fuelbed with elevations ranging from below 1,700 feet above mean sea level (amsl) to nearly 4,700 feet amsl. Vegetation throughout the fuelbed varies, but large portions are dominated by sparse, semi-arid vegetation including desert scrub, chaparral, juniper woodland, and oak woodland. Land ownership within the fuelbed includes the State of California, the Bureau of Land Management, the County of San Diego, Native American Reservation, and private holdings. Population density is a sparse 34 people per square mile.

As discussed above, the Proposed Project would temporarily increase the risk of wildland fires during construction and decommissioning activities. As indicated in Appendix 3.1.7-2, three of the renewable energy cumulative projects, namely the Tule Wind project, ECO Substation project and Energia Sierra Juarez U.S. Transmission Line project, are anticipated to overlap with the Proposed Project during certain construction phases. As required in the Final EIR/EIS for the Tule Wind project, ECO Substation project, and ESJ U.S.

Transmission Line project, each of these projects would implement a CFPP similar to that of the Proposed Project (CPUC and BLM 2011) (as described in **PDF-HZ-2**), as well as other mitigation and design measures such as hot works restrictions, Red Flag Warning protocols, contractor fire suppression equipment mandates, vegetation clearing and management, amongst others, that have been analyzed and determined to reduce the probability of a wildfire during construction to a level less than significant. With implementation of **PDF-HZ-2** (requiring a CFPP) and **PDF-TR-1** (requiring a Traffic Control Plan) the Proposed Project, when combined with short-term potential overlap with other cumulative projects, **would not contribute to a significant cumulative impact** associated with wildland fires during construction and decomissioning.

Once construction is complete the Proposed Project would introduce potential ignition sources that do not currently exist on the site. The equipment on the site that may be ignition sources during operation and maintenance includes: transformers, capacitors, electric transmission lines (including the Tierra del Sol gen-tie line), substations, vehicles, and gas or electric powered small hand tools. The inverters, solar panels, and trackers represent potential ignition sources that are considered to have low likelihood of causing fires. All of this equipment represents a risk of sparking or igniting nearby fuels, particularly with off-site flammable vegetation and during high wind conditions. To reduce the risk of fire on the site and improve the effectiveness of an emergency response should a fire occur on-site, a site-specific FPP (see Appendix 3.1.4-5, Appendix 3.1.4-6, and **PDF-HZ-3**) would be implemented. The FPP would ensure that the Proposed Project would implement a number of design measures to ensure compliance with the San Diego County Consolidated Fire Code. Cumulative projects would undergo similar review for adequate fire protection and would be required to implement design measures or mitigation measures, as necessary. Such projects include the Tule Wind project, ECO Substation project and ESJ U.S. Transmission Line project, all of which would implement a project-specific FPP. In addition, these cumulative projects include mitigation that requires funding to assist the San Diego Rural Fire Protection District and SDCFA in improving the response and firefighting effectiveness near the project sites. Local Fire Authorities Having Jurisdiction were involved in the determination of the high priority issues facing potential impacts on fire and emergency medical response with multiple renewable energy projects occurring in southeast San Diego County. As needs were identified, they were vetted and ranked. Many of the identified needs were found to be low priority and were not included on the final list. The highest priority needs were included on a list that will be a key component for acquisitions of apparatus, staffing, specialized training, and equipment needed to respond to emergencies originating at or from a renewable energy site. The Proposed Project would contribute equipment and funding towards high priority local fire and emergency response capabilities (see Section 3.1.7 for further details). The implementation of the FPPs and additional measures to improve firefighting effectiveness in

the area would reduce the proportionate share of fire impacts on a cumulative level. Therefore, the Proposed Project in combination with cumulative projects, would be in compliance with applicable fire codes and **would not result in a cumulatively considerable impact** associated with wildland fires during construction and operation.

3.1.4.4.4 Hazards Associated with Interference of Emergency Responses

As discussed above, during construction and decommissioning, access to the sites and surrounding areas could be temporarily interrupted due to equipment deliveries, etc. Additionally, once operational, access to and on the sites could be limited for emergency response vehicles and personnel.

Cumulative projects in the nearby areawould have the potential to impair existing emergency and evacuation plans. 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; (3) evacuation route impairment if multiple development projects concurrently block multiple evacuation or access roads. However, cumulative projects would be required to comply with applicable emergency response and evacuation policies outlined in regulations above, such as the Federal Response Plan, the California Emergency Services Act, and local fire codes. Additionally, cumulative projects including the Tule Wind project, ECO Substation project and ESJ U.S. Transmission Line project, would each implement a Traffic Control Plan and a CFPP that would reduce the risk of fire and ensure emergency access throughout construction (CPUC and BLM 2011).

As previously discussed, **PDF-TR-1** through **PDF-TR-3**would ensure safe and efficient traffic flow, as well as access for emergency responders, in the Proposed Project area during construction and decommissioning activities. As described above, the project would implement **PDF-HZ-2**, which specifies that the project would prepare and implement a CFPP. The CFPP would identify potential sources of ignition and fuel during construction and decommissioning, and would detail the specific fire-prevention measures and work restrictions that would be employed during construction and decommissioning. Once construction is complete, operation and maintenance activities would be limited to the Proposed Project sites and access on the site would be maintained pursuant to the FPP design measures that would be implemented as described above for Tierra del Sol and Rugged solar farms (see Appendices 3.1.4-5 and 3.1.4-6 for further details), as well as under **PDF-HZ-3** for the LanEast and LanWest solar farms. Additionally, it should be noted that the Proposed Project would contribute equipment and funds towards local fire and emergency response capabilities (**PDF-PS-1**). This is further analyzed and discussed in Section 3.1.7, Public Services. **PDF-PS-1** would improve firefighting effectiveness in the

area and would further reduce potential increases in emergency response services (direct and indirect) associated with an increase in activity/population in the area. With implementation of **PDF-TR-1** through **PDF-TR-3, PDF-HZ-2,PDF-HZ-3**, and **PDF-PS-1**, and because cumulative projects would be required to comply with applicable emergency response and evacuation policies, the Proposed Project would **not contribute to a cumulatively significant impact** relative to emergency response and emergency evacuation plans in the area.

3.1.4.5 Other Field-Related Public Concerns or Hazards

Recognizing there is a great deal of public interest and concern regarding potential health effects and hazards from exposure to EMFs and associated harmonic components, the following discussion provides information regarding EMFs and associated harmonic components as they relate to public health and safety. This discussion does not consider EMFs in the context of CEQA for determination of environmental impact because there is no agreement among scientists that EMFs create a health risk and because there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information is provided below for the benefit of the public and decision makers.

Solar farms create varying amounts of EMFs and related harmonic components from the associated power facilities and transmission lines. EMF attenuates rapidly with distance from the source. Given the proximity to sensitive receptors and setbacks that are required, the Proposed Project is not anticipated to result in measurable levels of EMF at nearby residences that would result in adverse effects to public health or safety. There is inadequate or no evidence of health effects at low exposure levels. The CPUC implemented a decision in 1993 that, in part, implemented a number of EMF measurement, research, and education programs, and provided the direction that led to the preparation of the California Department of Health Services comprehensive review of existing studies related to EMFs from power lines and associated potential health risks. The CPUC stated that, “at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences … As stated in the rulemaking initiating this proceeding, at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences” (CPUC 2006). As the public agency charged with serving the public interest by ensuring the provision of safe and reliable utility services, such a position is reasonable given the current science and available data. Furthermore, the California Department of Public Health, Environmental Health Investigations Branch, ceased its inquiry into EMF in the mid-2000s (California EMF Program 2006).

Stray voltage could occur if electrical equipment is not maintained properly. Induced current or stray voltage has the potential for adverse health effects if not properly grounded. As part of the regular operations and maintenance measures of the project, electrical equipment would be examined to confirm that they are properly grounded and that there are no stray voltage issues through the life of the Proposed Project. Therefore, no health effects would be anticipated to occur from stray voltage.

3.1.4.6 Conclusion

This section provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures, if any, are implemented. The Proposed Project would not require mitigation measures because there were no identified significant impacts relative to hazards and hazardous materials.

Hazardous Materials

Due to compliance with all applicable laws and regulations, and implementation of **PDF-HZ-1**, the Proposed Project would result in **less-than-significant** impacts related to hazardous materials contamination, including the routine transport, use, and disposal of hazardous substances.

Airport Hazards

The Proposed Project would **not result in significant impacts** to an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip that would result in a safety hazard for people residing or working in the Proposed Project area.

Wildland Fires

With implementation of **PDF-HZ-2, PDF-HZ-3** (for LanEast and LanWest only) and **PDF-TR-1** through **PDF-TR-3**, the Proposed Project would not increase the risk of wildland fires during construction or decommissioning at each of the sites, and impacts would be **less than significant**.

Hazards Associated with Interference with Emergency Responses

With implementation of **PDF-TR-1** through **PDF-TR-3, PDF-HZ-2 PDF-HZ-3** (for LanEast and LanWest only), and **PDF-PS-1**, access would be maintained during construction, operations, and decommissioning, and the Proposed Project would not interfere with emergency response capabilities in the area. Impacts would, therefore, be **less than significant**.

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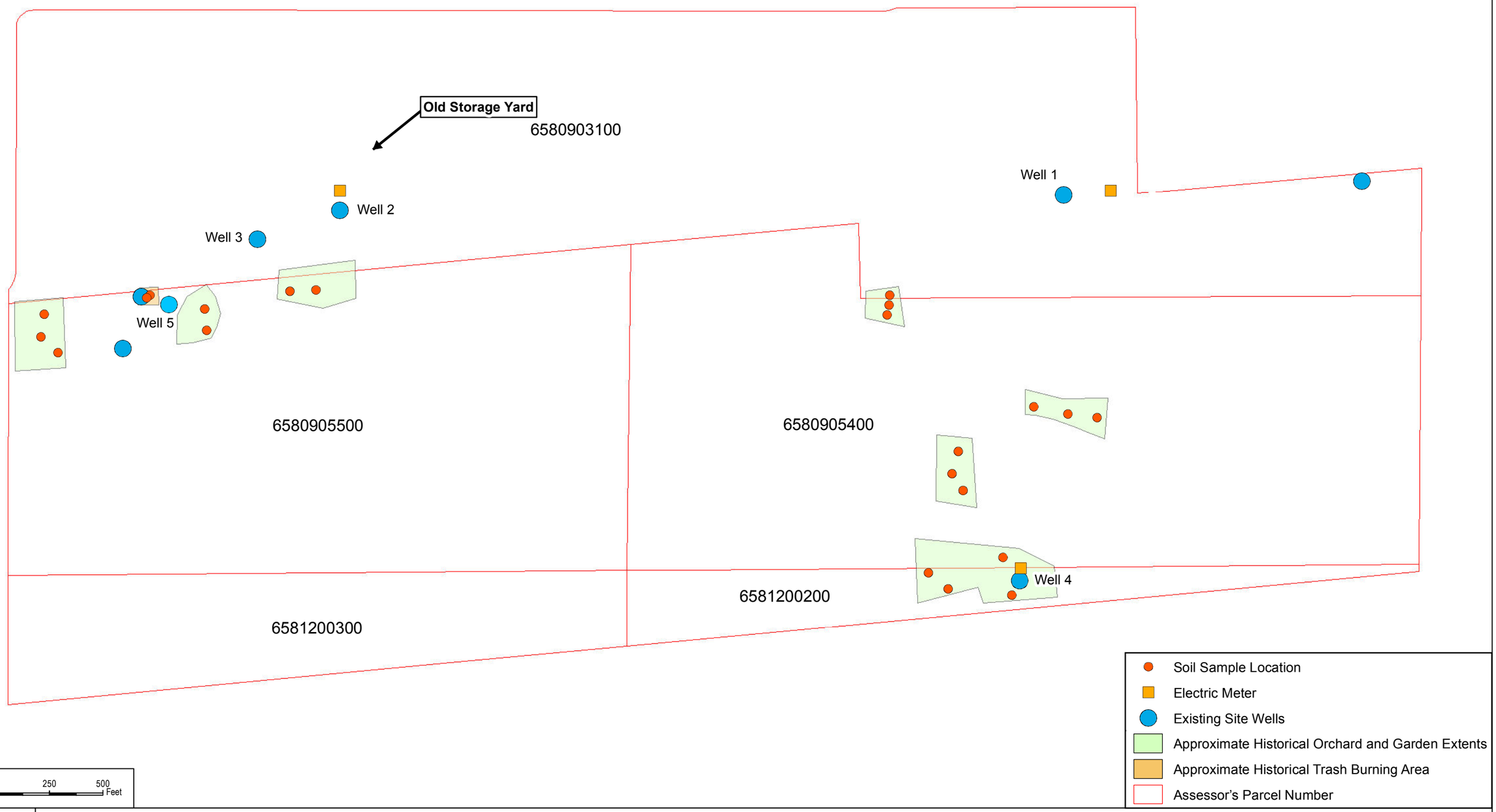

DUDEK

7122-2

SOURCE: Digital Globe 2008, SanGIS 2010

FIGURE 3.1.4-1

Tierra del Sol Solar Farm Site

SOITEC SOLAR DEVELOPMENT PROGRAM EIR

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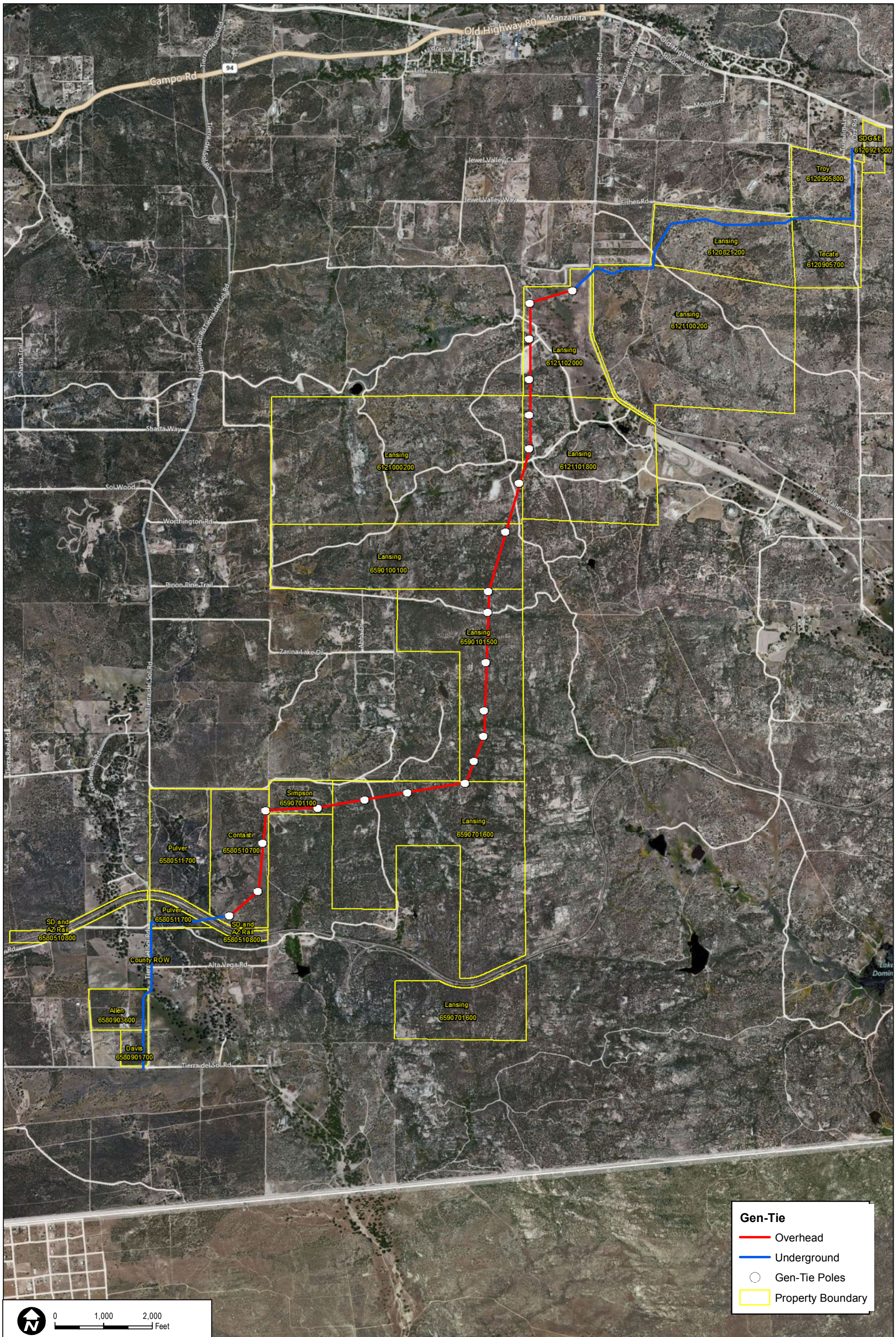

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7122-2

Source: BING 2013

FIGURE 3.1.4-2

Tierra del Sol Gen-Tie Line

Generator Tie Transmission Line

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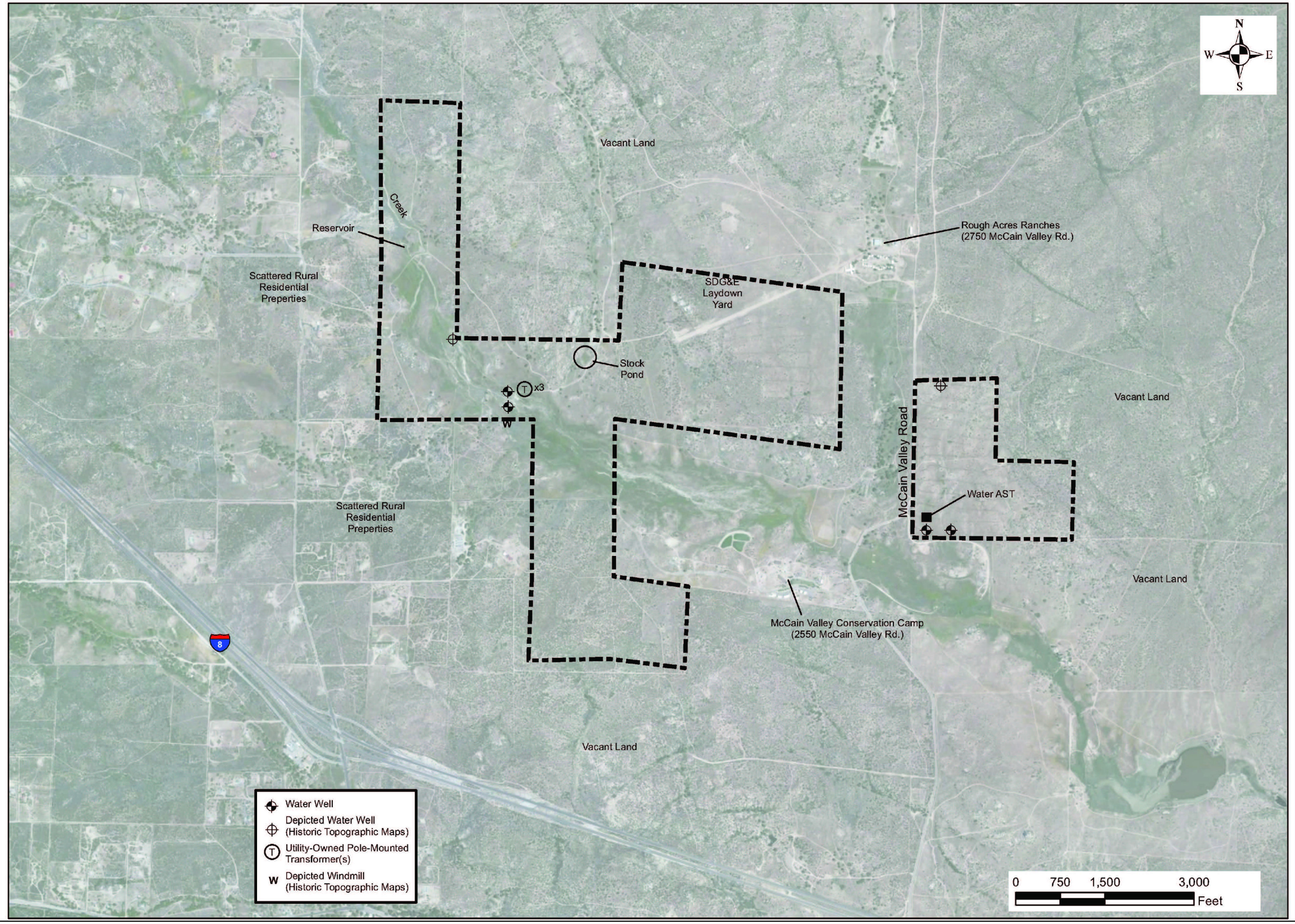

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SOURCE: Aecom 2012

FIGURE 3.1.4-3

Rugged Solar Farm Site

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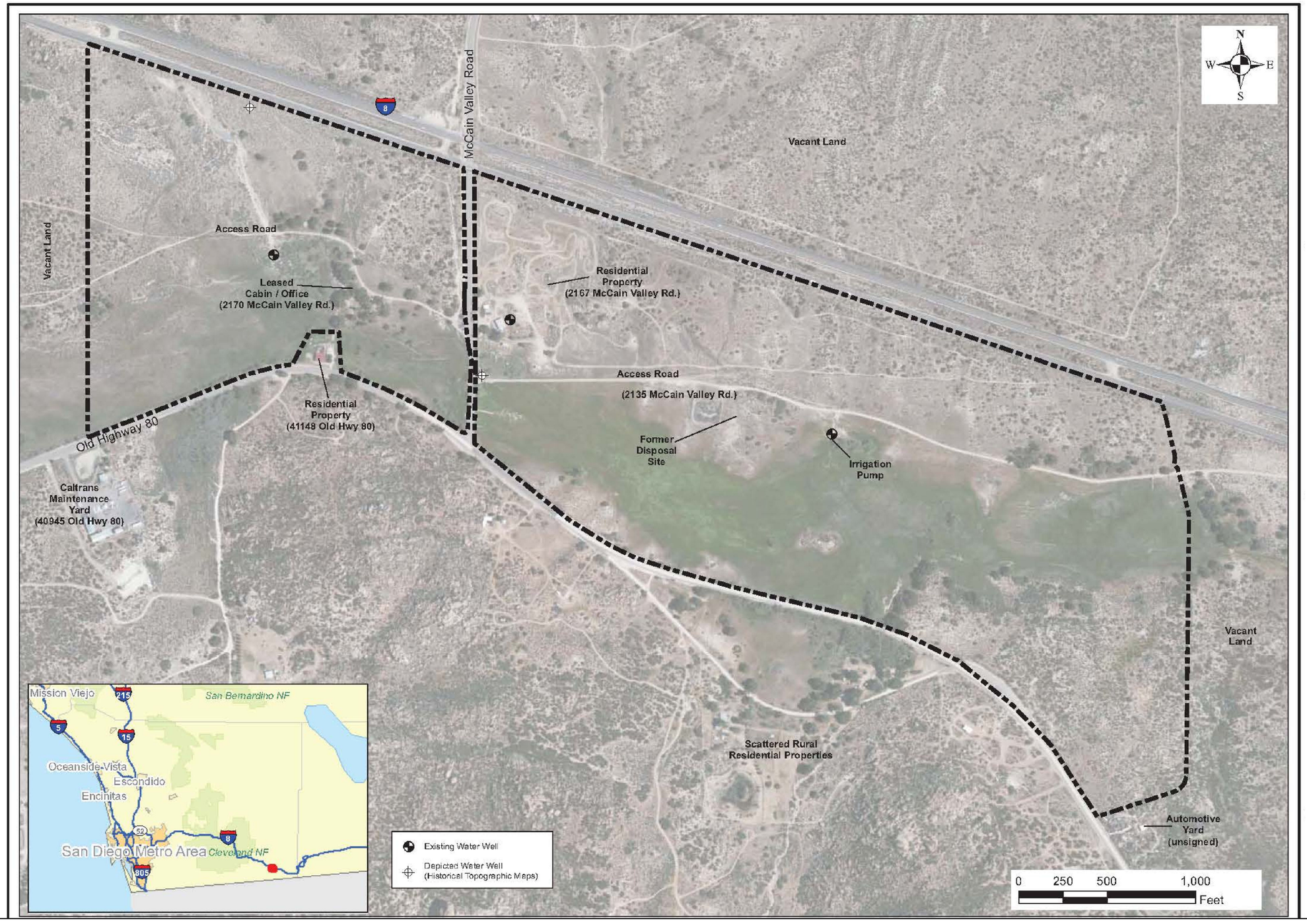

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7122-2

SOURCE: Aecom 2011

FIGURE 3.1.4-4

LanEast and LanWest Sites

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