3.1.8 Utilities and Service Systems

This section discusses potential impacts to utilities and service systems, including water, wastewater, and solid waste hauling and disposal, resulting from the implementation of the Proposed Project. Electrical and natural gas systems are not included in this analysis because the Proposed Project would not require extension of natural gas services. The Proposed Project would construct electrical generation and transmission facilities as a part of the Proposed Project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines.

Comments received in response to the Notice of Preparation (NOP) included concerns regarding the availability of water and the estimation of demand for water. These concerns are addressed in this section. A copy of the NOP and comment letters received in response to the NOP is included in Appendix 1-1 of this EIR.

3.1.8.1 Existing Conditions

The Proposed Project would be located in the Mountain Empire Subregion of southeastern San Diego County (County), an approximately 285,000-acre, largely rural, low-density population area that generally lacks substantial utility infrastructure, such as water and wastewater distribution and collection systems. The closest water service provider is the Jacumba Community Services District (JCSD). JCSD currently has limited water infrastructure that include several wells in the surrounding area. Potable water service is not available on site, and the closest service is approximately 2.5 miles away.

Baseline utilities and service systems information was obtained through a review of other recent development review documents including the *Draft Environmental Impact Report (EIR) for the Soitec Solar Development Project* (County of San Diego 2014), as well as of several websites as cited below.

Regional Overview

Water

The Mountain Empire Subregion relies on groundwater to supply local water (County of San Diego 2011a). The availability of groundwater varies from location to location. Intensity of development is limited because the area is totally dependent on groundwater resources for potable water (County of San Diego 2011b).

Wastewater

Wastewater services in the Mountain Empire Subregion are provided by small-scale waste treatment facilities or by private septic systems. There is no formal sanitation district in the Project area; wastewater is treated in private septic systems (CPUC and BLM 2011).

Solid Waste

Residential solid waste disposal in unincorporated San Diego County was historically facilitated through the use of rural bin sites. Essentially, rural bin sites function as transfer stations at which residents dispose of residential waste, and licensed haulers transport the waste to an area landfill. However, as of May 1, 2009, all rural bin sites in unincorporated San Diego County were closed by Allied Waste Industries (County of San Diego 2012). Commercial waste hauling in the area is currently provided by eight companies (County of San Diego 2012). There are five permitted active landfills located within the County with remaining capacity. The landfills nearest the Project area in San Diego County are the Sycamore Landfill in Santee (approximately 60 miles northwest of the site) and the Otay Landfill in Chula Vista (approximately 55 miles west of the site) (County of San Diego 2005). The Sycamore Landfill has a permitted disposal rate/throughput of 3,965 tons per day, and a remaining capacity of 47,388,428 cubic yards (as of September 30, 2006) (CalRecycle 2012a). The Otay Landfill has a permitted disposal rate/throughput of 5,830 tons per day, and a remaining capacity of 24,514,904 cubic yards (as of March 31, 2012) (CalRecycle 2012b).

3.1.8.2 Regulatory Setting

Federal Regulations

There are no federal regulations, plans, or standards related to utilities and service systems that are relevant to the Proposed Project.

State Regulations

The following state regulations pertaining to utilities and service systems would apply to the Proposed Project.

California Integrated Waste Management Board Solid Waste Policies

Assembly Bill (AB) 939, the Integrated Waste Management Act, established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (now the California Department of Resources Recycling and Recovery, or CalRecycle) and local agencies in the implementation of programs geared at (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. AB 939 also included waste

diversion mandates that require all cities and counties to divert 50% of all solid waste through source reduction, recycling, and composting activities. The Integrated Waste Management Act also requires that each county provide capacity for solid waste generated within its jurisdiction which cannot be reduced or recycled for a 15-year period (CalRecycle 2012c).

Local Regulations

County of San Diego Construction and Demolition Materials Ordinance

The County of San Diego Construction and Demolition Materials Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) is intended to increase diversion of construction and demolition materials from landfills in order to conserve landfill capacity and extend the useful life of local landfills. The ordinance requires that projects totaling over 40,000 square feet of construction, prepare a debris management plan that specifies the type of project, total square footage of construction, and (among other items) the estimated volume and weight of construction and demolition debris that would be disposed of at a landfill. Applicants of applicable projects are required to submit a performance guarantee (payment) to the County to ensure that the project complies with the diversion standards (i.e., projects shall recycle 90% inert construction and demolition debris and 70% of all other construction and demolition debris) of the Construction and Demolition Materials Ordinance. As the Proposed Project would involve more than 40,000 square feet of construction, it is considered an applicable project under the Construction and Demolition Materials Ordinance.

County of San Diego General Plan

The County of San Diego General Plan, Land Use Element, Community Services and Infrastructure section contains policies and objectives that were determined to be applicable to Proposed Project components. Refer to Section 3.1.5 of this EIR for policies and objectives of the County of San Diego General Plan that are applicable to the Proposed Project.

Coordination among Facility Planning, Financing Programs and Land Use Planning

- **Policy LU-12.1: Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing.
- **Policy LU-12.3: Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

Water Supply

- **Policy LU-13.1: Adequacy of Water Supply.** Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand. **Policy LU-13.2: Commitment of Water Supply.** Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

The following policies identified in the General Plan, Conservation and Open Space Element would be applicable to Proposed Project components:

- **Policy COS-17.1: Reduction of Solid Waste Materials.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.
- **Policy COS-17.2: Construction and Demolition Waste.** Require recycling, reduction and reuse of construction and demolition debris.
- **Policy COS-17.6: Recycling Containers.** Require that all new land development projects include space for recycling containers.
- **Policy COS-19.1: Sustainable Development Practices.** Require land development, building design, landscaping, and operational practices that minimize water consumption.
- **Policy COS-19.2: Recycled Water in New Development.** Require the use of recycled water in development wherever feasible. Restrict the use of recycled water when it increases salt loading in reservoirs.

Mountain Empire Subregional Plan

The Mountain Empire Subregional Plan (a supplement to the County General Plan) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance which together compose the Mountain Empire Subregion of southeastern San Diego County. The goals and policies of the Subregional Plan are intended to be more specific than those of the County General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

Policies in the Mountain Empire Subregional Plan that relate to the Proposed Project are presented in Table 3.1.5-4 of this EIR.

Public Facilities and Services

- Uses proposed for property adjacent to substations or transmission line right-of-ways should be reviewed for possible impacts to the power facilities and vice versa.

3.1.8.3 Analysis of Project Effects and Determination as to Significance

The Proposed Project consists of a renewable energy solar facility in southeastern San Diego County. The applicant is seeking project-level approvals for the Jacumba Solar Energy Project, analyzed at a project-level of detail in this Draft EIR.

3.1.8.3.1 Water

Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance do not include significance thresholds or guidance for determining significance for impacts to utilities and service systems. Therefore, for the purpose of this EIR, Appendix G of the California Environmental Quality Act (CEQA) Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would result if the project would:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The Project would be an unmanned facility that would be monitored remotely. For these reasons, the Proposed Project would not require or result in the construction of new water or wastewater treatment facilities which could cause significant environmental effects.

The following analysis focuses on whether there are sufficient water resources within the southeast County area necessary to serve the Proposed Project. Additionally, the following analysis briefly discusses stormwater and drainage facilities, which are more fully discussed in Section 3.1.4.3.1.

Analysis

Water

Per California Water Code Section 10912(a)(5)(B), a "proposed photovoltaic or wind energy generation facility approved on or after the effective date of the amendments made to this section at the 2011-12 Regular Session is not a project if the facility would demand no more than 75 acre-feet of water annually." This analysis assumes that to calculate the project's total annual water demand two factors are used: (1) the total water used during construction amortized over a 30-year period, or total construction water used divided by 20; and (2) the total amount of water to be used annually during operations. This approach is consistent with standard Water Supply Assessment preparation practices and the intent of the statute, which is to identify water shortages over a period of time, not in any particular year.

The Proposed Project would use 58.6 acre-feet for construction and 3.5 acre-feet per year for operation and maintenance. Amortized over a 30-year period, the Proposed Project would have an annualized water use of 5.45 acre-feet (see Tables 1-4 and 1-5 in Chapter 1, Project Description). Under the approach discussed above, the Proposed Project does not meet the 75 acre-feet of annual water use threshold; and therefore, a formal Water Supply Assessment for the Proposed Project has not been prepared.

The solar facility would use water from water sources that may include the following: Jacumba Community Service District (brackish water not distributed by District) and Padre Dam Municipal Water District (reclaimed water not distributed by District). Because the applicant has identified viable sources of water to supply both construction and operational needs, the Proposed Project's impact on water supplies and systems is **less than significant** (see Section 3.1.4.3.4 of this EIR for an analysis of groundwater resources).

Stormwater

The Proposed Project could increase peak flow rates on site and in areas immediately downstream of the Project. No existing stormwater drainage facilities would serve the Project; as such, the Proposed Project includes the development of a drainage system that would be designed to accommodate the 100-year peak flow events, and would do so in a manner that mimics the natural drainage courses as closely as possible. Because of the minimal amount of impervious surfaces on site and because the on-site drainage has been designed to approximate pre-construction drainage patterns, this increase in peak flows would be minor. The Proposed Project would not require the construction of new stormwater drainage facilities beyond what is described and included within the Project's Minor Stormwater Management Plan (Appendix 3.1.4-2) and analyzed in Section 3.1.4, Hydrology and Water Quality. Therefore, impacts would be **less than significant**.

3.1.8.3.2 Solid Waste

Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance do not include significance thresholds or guidance for determining significance for impacts to utilities and service systems. Therefore, for the purpose of this EIR, Appendix G of the CEQA Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. A significant impact would not result if the project were to:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs
- Comply with federal, state, and local statutes and regulations related to solid waste.

Analysis

Wastes generated by construction of the Proposed Project would primarily consist of concrete, wood, and scrap metal that would be collected for recycling on the site to the extent possible, and would be sent to off-site recycling facilities where feasible. Total construction waste sent to local landfills is not anticipated to be substantial. Construction wastes could be dispersed among the landfills nearest to the Project area, which have sufficient remaining capacity to meet existing solid waste demands in addition to the waste from construction of the Proposed Project. Minimal wastes would be generated during operation of the facility, as the Project would be an unmanned facility that would be monitored remotely.

During decommissioning of the facility, construction wastes would be similar to those generated during construction and would also be recycled to the extent possible. Though exact landfill capacities at the time of decommissioning cannot be known at this time, it is currently anticipated that approximately 80% of the materials that make up the system, (a combination of aluminum, glass, steel, copper, and concrete), would be recyclable (NextEra). The remaining materials would be sent to a landfill during decommissioning. Based on the requirement of the Integrated Waste Management Act that the County provide for sufficient solid waste capacity in its landfills for a 15-year period (to be periodically updated), it is anticipated that the local landfills would have capacity to accept the waste from decommissioning activities. Total waste sent to local landfills during construction, operation, and decommissioning of the Proposed Project is not anticipated to be substantial.

Overall, for the reasons stated above, impacts to local solid waste collection, transfer, and disposal capacities as a result of the Proposed Project would be **less than significant.**

3.1.8.4 Cumulative Impact Analysis

The geographic extent for the analysis of cumulative impacts associated with utilities consists of southeastern San Diego County. This geographic extent is appropriate because utilities are provided by local jurisdictions or districts. Cumulative impact analysis for utilities has been conducted using the projects in Table 1-7 in Chapter 1.

As discussed above, southeastern San Diego consists of several small rural communities lacking municipal water and sewer utility systems that rely on groundwater for water supply and private septic systems for sewer. So while increased development and population growth can lead to additional funds available to provide additional public services to maintain service ratio standards, the lack of water and sewer infrastructure in the Proposed Project area severely limits the potential for utilities to be augmented by incremental increases in funding.

3.1.8.4.1 Water

As indicated in Table 1-7, several utility-scale renewable energy projects are proposed for southeast San Diego County, including wind and solar projects, and supporting infrastructure, such as transmission lines and electrical substations as well as some smaller residential and other public facilities projects. With many of these projects expected to undergo construction in the next few years, the southeast County region will experience increasing demands on groundwater resources, associated in particular with the construction phase of these projects. Certain residential, commercial, and/or institutional projects seeking permits and approvals in the area could also contribute to long-term demands on groundwater resources. Because this area of the County is entirely groundwater-dependent, water systems are limited to private wells for domestic and agricultural purposes, and small community water systems that serve a limited number of customers. The Proposed Project would not require or result in the construction of new off-site water or wastewater treatment facilities because the Project would be an unmanned facility that would be monitored remotely and water needs will be met through water trucked from sources described above. The other renewable energy and transmission projects in the area would employ similar methods for water needs as the Proposed Project and would not likely require new or expanded water or wastewater treatment facilities. The JCSD project to develop a new well at the existing monitoring well site know as Park Well, would results in an additional potable water supply in the Jacumba community and an available increase in JCSD capacity. This well would tap into a different groundwater source than the existing wells intended to be used for the construction and operation supply of cumulative projects.

The Proposed Project includes the development of stormwater drainage facilities, as described in the Project's Minor Stormwater Management Plan, which would be adequate to serve the Project's increase in peak runoff and 100-year peak flow events. No other cumulative project would drain

into the proposed drainage facilities developed for the Proposed Project, and each cumulative project would address stormwater flows on a site-by-site basis. The Proposed Project, along with other projects occurring in the area, would be required to comply with applicable federal, state, and local water quality and stormwater drainage regulations (see Section 3.1.4, Hydrology and Water Quality). The Proposed Project would not require or result in the construction of new or additional stormwater drainage facilities beyond what is included as part of development of the Project. As such, the Proposed Project would not cumulatively contribute to a significant cumulative impact regarding the construction of new stormwater drainage facilities.

Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact**.

3.1.8.4.2 Wastewater Treatment

As discussed above, the Proposed Project would not include an on-site private septic system to treat wastewater. The Project would be an unmanned facility that would be monitored remotely. Therefore, the Proposed Project would not contribute to a cumulatively considerable impact relative to wastewater treatment systems.

3.1.8.4.3 Solid Waste

As discussed above, construction of the Proposed Project would generate construction wastes that would be recycled to the extent possible. The waste generated by construction that would be sent to local landfills is not anticipated to overwhelm the remaining capacity of local landfill facilities such that these facilities would not be able to serve existing demand. Area landfills have sufficient capacity to accommodate the minor volume of waste expected to be generated during operation of the Proposed Project. Therefore, the Proposed Project **would not contribute to a cumulatively considerable impact.**

Although exact volumes are unknown, construction of reasonably foreseeable projects in the area would generate wastes which would be transported to a landfill for disposal. Each cumulative project would comply with the County of San Diego's Construction and Demolition Materials Ordinances as applicable. The same landfills used during construction and operation of the Proposed Project would likely be used by waste haulers to dispose of wastes generated in the Project area by reasonably foreseeable cumulative projects. However, due to the temporary nature of construction and due to the remaining capacities of area landfills as discussed above (the Sycamore and Otay Landfills have a combined remaining capacity of over 71 million cubic yards (CalRecycle 2012a, 2012b)), and because construction of all reasonably foreseeable cumulative projects would not necessarily occur concurrently with the construction of the Proposed Project, local and regional landfills and waste haulers are anticipated to have sufficient remaining capacity to serve all reasonably foreseeable cumulative projects. Therefore, the

Proposed Project **would not contribute to a cumulatively considerable impact** relative to solid waste collection, transfer, and disposal capacities during construction.

3.1.8.5 Conclusion

The Proposed Project would not result in impacts to utilities and service systems, including water, wastewater, and solid waste hauling and disposal, and no mitigation measures would be necessary.