

3.1.10 Utilities and Service Systems

This section of the Environmental Impact Report (EIR) discusses potential impacts to utilities and service systems resulting from the implementation of the project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical studies prepared for the project in accordance with the *County of San Diego Guidelines for Determining Significance – Hydrology and Water Quality* (County of San Diego 2021a), *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023a), and *County of San Diego Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2023b):

- *Preliminary Drainage Study, Starlight Solar* (Michael Baker International 2024b; Appendix G.1 of this EIR)
- *Groundwater Monitoring and Mitigation Plan for the Starlight Solar Project* (INTERA Incorporated [INTERA] 2025c; Appendix G.2 of this EIR)
- County of San Diego Stormwater Quality Management Plan (SWQMP) For Standard Projects (Standard SWQMP), prepared for the Starlight Solar Project, March 15, 2024 (Appendix G.3 of this EIR)
- *Revised Construction Water, Operations and Maintenance and Decommissioning Water Demand Estimate – Starlight Solar* (INTERA 2025a; Appendix G.4 of this EIR)
- *Updated Draft Groundwater Resources Investigation Report – Flat Creek Watershed Analysis* (INTERA 2025b; Appendix G.5 of this EIR)

Comments received in response to the Notice of Preparation (NOP) include concerns regarding the project's water demand. These concerns are addressed in this section of the EIR where applicable. Copies of the NOP and comment letters received in response to the NOP are included in Appendix A, NOP, Initial Study, and Public Comments, of this EIR.

3.1.10.1 Existing Conditions

The project site consists of approximately 588 acres in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the U.S.–Mexico border. The community of Boulevard is approximately 65 square miles and includes the communities of Manzanita, Tierra del Sol, and Live Oak Springs. Boulevard is a census-designated place with a population of approximately 410 people (U.S. Census Bureau 2023). The community of Boulevard is located in the Mountain Empire Subregion of southeastern San Diego 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 and solid waste disposal.

Water

The project site lies outside of the service areas of the Metropolitan Water District, San Diego County Water Authority (SDCWA), and SDCWA Member Water Districts. Approximately 65% of the unincorporated areas under the County of San Diego's (County's) jurisdiction is dependent on groundwater resources, which provide the only source of water for over 41,000 residents (County of San Diego 2011a). Water service in the project vicinity and on the project site consists exclusively of groundwater wells—either private, tribal, state, federal, or part of small community water districts.

The project proposes to use groundwater imported from the Jacumba Community Services District (JCSD). The JCSD is one of 14 groundwater-dependent water districts that serve the unincorporated areas of San Diego County without the ability to receive imported water directly from SDCWA. These districts rely on groundwater as the only source for their water supply. The JCSD provides water service to the small, rural community of Jacumba, located between Interstate 8 and the U.S.–Mexico international border. JCSD distributes groundwater to 239 residential and commercial connections over a service area of 435 acres (see Appendix G.5). One hundred percent of the JCSD water supply comes from groundwater from the Jacumba Valley Groundwater Basin (California Department of Water Resources [DWR] Basin No. 7-47). Table 3.1.10-1 shows the groundwater sources and total water demand within the Jacumba Valley Groundwater Basin.

Table 3.1.10-1. Groundwater Sources and Total Water Demand in the Jacumba Valley Groundwater Basin

Groundwater Extraction Source	Well Name	Total Water Demand (af/yr)
Jacumba Valley Ranch Water Company	Well Km	5 ^a
Jacumba Community Services District (JCSD) (potable)	Well 4	0 ^b
JCSD (nonpotable)	Highland Center Well, Park Well	53.6 ^c
Potential domestic wells	Private domestic wells	3 ^d
Total Water Demand		61.6

Source: INTERA (2025b) (see Appendix G.5)

Notes:

af/yr = acre-feet per year

^a Jacumba Valley Ranch Water Company has up to seven connections: three ranch homes, two gas stations, and two fire hydrants. No water demand was assigned to the fire hydrants. Water demand is estimated at approximately 1 acre-foot (af) per connection.

^b Beginning in spring 2019, potable groundwater production from Well 4 ceased. Potable groundwater production for JCSD is sourced from Wells 7 and 8, which are located in the fractured rock aquifer.

^c Maximum demand based on meter reads from February 2017 to February 2018.

^d Not all domestic wells are currently active or known; however, a consumptive water demand of 0.5 af/yr has been assigned to up to six potential domestic wells.

The JCSD operates two active groundwater wells, one pump, 7 miles of pipeline, and two reservoirs (total capacity 202,000 gallons) (County of San Diego 2011a). Residential land use accounts for 90% of JCSD water service, and the remaining 10% is provided to commercial land uses.

JCSD also supplies nonpotable water for commercial sale. Beginning in 2016, JCSD began supplying nonpotable water from the Highland Center Well and the Park Well, both located in the Jacumba Valley alluvial aquifer. Nonpotable water supply from JCSD varied based on customer demand. From February 2017 to February 2018, JCSD supplied 50.1 acre-feet (af) from the Highland Center Well and 3.5 af from the Park Well. From February 2018 to January 2019, JCSD supplied 4 af from the Highland Center Well and no water from the Park Well. Maximum annual groundwater extraction from the Jacumba Valley alluvial aquifer by JCSD for nonpotable water use is 53.6 af per year (af/yr) (INTERA 2025b; see Appendix G.5).

The water source for the project would be groundwater from the Highland Center Well, with a potential backup supply provided by the Park Well. These wells produce groundwater from the alluvial aquifer within the Jacumba Valley Groundwater Basin, as discussed in the groundwater resources investigation report (see Appendix G.5). The main sources of recharge to the basin are stream recharge, rainfall recharge, and applied water return flows. JCSD relies solely on groundwater as a source of water supply and is responsible for the community of Jacumba's domestic water system, which currently provides service to approximately

239 homes and commercial properties. At present, JCSD's potable water system has two existing domestic water supply wells in use: Well 7 and Well 8. Based on the number of connections and an estimated 0.5 af/yr per connection, JCSD potable water demand is estimated to be 119.5 af/yr (see Appendix G.5). This estimate roughly coincides with average historical water demand from 1991 to 1995 (average 119 af/yr).

The current maximum pumping rates for the Highland Center Well and the Park Well are 174 gallons per minute (gpm) and 80 gpm, respectively. The Highland Center Well is capable of supplying JCSD future maximum nonpotable water demand of 249 af of groundwater at a constant pumping rate of 154 gpm.

Wastewater

The project site lies outside the service area of the San Diego County Sanitation District and other wastewater districts (County of San Diego 2022a). There is no formal sanitation district in the project vicinity; wastewater service relies on individual septic systems that are the responsibility of the individual owners (County of San Diego 2011a).

Solid Waste

The project site is currently vacant and, therefore, is not provided with solid waste disposal services. However, solid waste disposal in southeastern unincorporated San Diego County is provided through subscription to a three-stream collection service (trash, recycling, and green waste) with a non-exclusive franchise hauler or contract with a Certified Recyclable Materials Collector for certain materials (County of San Diego 2021b). Within the incorporated and unincorporated areas of San Diego County, there are six permitted active landfills with remaining capacity that serve residents, businesses, and military operations: West Miramar Sanitary Landfill, Otay Landfill, Borrego Landfill, Las Pulgas Landfill, San Onofre Landfill, and Sycamore Landfill (Regional Water Quality Control Board [RWQCB] 2023). Las Pulgas and San Onofre Landfills are owned and operated by the U.S. Marine Corps and are not available for public disposal (California Department of Resources Recycling and Recovery [CalRecycle] 2025a, 2025b). The Sycamore, Otay, and Borrego Landfills are owned and operated by Republic Services, and the West Miramar Sanitary Landfill is owned by the U.S. Department of the Navy and operated by the City of San Diego (CalRecycle 2025c, 2025d, 2025e, 2025f).

Based on aerial surveys and calculations conducted between 2019 and 2021, the total San Diego landfill system capacity in 2021 is approximately 134,072,931 cubic yards or 107,005,301 tons using current landfill compaction rates (County of San Diego 2022b). The landfills nearest the project site in San Diego County are the Sycamore Landfill in Santee (approximately 45 miles northwest of the project site) and the Otay Landfill in Chula Vista (approximately 43 miles west of the project site). The Sycamore Landfill has a maximum permitted capacity of 147,908,000 cubic yards, permitted disposal rate of 5,000 tons per day and a remaining capacity of 105,064,991 cubic yards (CalRecycle 2025c). The current permit (37-AA-0023) anticipates that Sycamore Landfill would be in operation until 2042 based on current waste generation rates. The Otay Landfill has a maximum permitted capacity of 61,154,000, a permitted disposal rate/throughput of 6,700 tons per day, and a remaining capacity of 21,194,008 cubic yards (CalRecycle 2025d). The current permit (37-AA-0010) anticipates that Otay Landfill would be in operation until 2030 based on current waste generation rates (County of San Diego 2022b).

Electric Power and Other Utilities

Boulevard contains the San Diego Gas and Electric (SDG&E) Boulevard substation, an SDG&E 69-kilovolt (kV) overhead transmission line, numerous distribution circuits, and the SDG&E 500-kV Southwest Powerlink and Sunrise transmission lines. Two more SDG&E substations exist on the Campo Reservation which serve the 50-megawatt (MW) Kumeyaay Wind Facility approximately 5 miles northwest of the

project site (County of San Diego 2013). Canyon Wireless is the primary internet provider for the community of Boulevard (Canyon Wireless 2017).

3.1.10.2 Regulatory Setting

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) was created with the goal to restore and preserve the chemical, physical, and biological integrity of the nation's waterways by preventing pollution from entering waterways, including wetlands, and assisting publicly owned wastewater treatment facilities to improve wastewater treatment. The CWA regulates the water quality of all discharges into waters of the United States including wetlands and perennial and intermittent stream channels.

Safe Drinking Water Act

The purpose of the Safe Drinking Water Act (SDWA) is to protect public health by regulating the nation's public drinking water supply. The SDWA authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants that may be found in drinking water. Potential contaminants include improperly disposed chemicals, animal wastes, pesticides, human threats, waste injected underground, and naturally occurring substances. In addition, water that is not properly treated may pose a threat to drinking water. The SDWA applies to all public water systems across the nation. The EPA, individual states, and water systems work in coordination to ensure that these standards are met. The EPA identifies potential contaminants, determines an allowable maximum contaminant level, and enforces the set standards.

State Regulations

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) consists of three bills (Assembly Bill (AB) 1739, Senate Bill (SB) 1168, and SB 1319) that provide local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, and priorities and timelines to achieve sustainable groundwater management. Central to the SGMA are the identification of critically over-drafted basins and the prioritization of groundwater basins, establishment of groundwater sustainability agencies, and preparation and implementation of groundwater sustainability plans (GSP) for medium-priority, high-priority, and critically over-drafted basins. GSP objectives require that future groundwater use does not cause undesirable results, which include the following: declining water levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. One requirement of a GSP is to establish a monitoring network to track water level changes and groundwater storage, and to monitor pre-determined water level thresholds within each basin. Water level data for these basins are made available to the public through online portals. A basin may be managed by a single GSP or multiple coordinated GSPs.

At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the State Water Resources Control Board (SWRCB) stepping in should a local agency be found to not be managing groundwater sustainably.

In San Diego County, three groundwater basins are designated as medium- or high-priority and subject to SGMA: Borrego Valley (Borrego Springs Subbasin), San Luis Rey Valley (Upper San Luis Rey Valley Subbasin), and San Pasqual Valley (County of San Diego 2022c). As discussed in Section 3.1.10.1, Existing Conditions, the proposed project is within the region of the Jacumba Valley Groundwater Basin, a very low-priority groundwater basin, and thus does not require a GSP.

Urban Water Management Planning Act

As a part of the California Water Code, the California Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 connections or distributing more than 3,000 af/yr to complete an urban water management plan (UWMP) every 5 years ending in “5” and “0”. Each plan must include a description of the service area, existing and planned sources of water available to the supplier, how much water the agency has on a reliable basis, how much it needs for the foreseeable future, the agency’s strategy for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency’s plan. In addition, every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its UWMP that includes, but is not limited to, an analysis of water supply reliability over a 20-year planning timeframe, the procedures used in conducting an annual water supply and demand assessment, a definition of standard water shortage levels corresponding to progressive ranges of up to 50% shortages and greater than 50% shortages, and shortage response actions that align with the defined shortage levels.

The JCSD pumps local groundwater from four district-owned wells to 230 connections. The system includes two treated-water reservoirs with an aggregate capacity of 638,000 gallons (San Diego County Local Agency Formation Commission [SDLAFCO] 2013). As the JCSD serves less than 3,000 connections, it is not required to prepare a UWMP.

California Senate Bill 610

SB 610 took effect on January 1, 2002. SB 610, codified in the California Water Code beginning with Section 10910, requires the preparation of a water supply assessment for projects above a certain size and scale. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a water supply assessment to evaluate water supplies that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project. SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects. The proposed project meets the requirements as defined in California Water Code Section 10912 [a] and is therefore not subject to SB 610.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) was originally enacted to require cities and counties in California to divert 25% of their waste streams by the year 1995 and 50% by the year 2000. Later legislation mandates the 50% diversion requirement to be achieved each year. Specifically, the act requires counties and cities to adopt a Source Reduction and Recycling Element of their Waste Management Plans to describe actions to be implemented to achieve waste reduction goals (Public Resources Code [PRC] Section 41750). CalRecycle oversees and provides assistance to local governments as they develop and implement plans to meet the mandates of the Integrated Waste Management Act and subsequent legislation.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, institutional building, marina, or

residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The sizes of these storage areas are to be determined by the appropriate jurisdictions' ordinance. If no such ordinance exists with the jurisdiction, the CalRecycle model ordinance shall take effect.

Mandatory Commercial Recycling Program

The Mandatory Commercial Recycling Program (AB 341) authorizes CalRecycle to develop and adopt regulations for mandatory commercial recycling. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, all multi-family homes with more than five units are also required to have a recycling program in place.

California Senate Bill 1374

SB 1374 was implemented to assist jurisdictions with diverting construction and demolition waste material. Per SB 1374, PRC Section 41821 requires public agencies to include a summary of the progress made in diverting construction and demolition waste according to diversion goals included in AB 939. Per SB 1374, PRC Section 41850 authorizes CalRecycle to fine jurisdictions that do not meet the required goals. Additionally, per SB 1734, PRC Section 42912 requires that CalRecycle adopt a model ordinance for diverting 50% to 75% of all construction and demolition waste from landfills.

Local Regulations

SANDAG Regional Energy Strategy

The San Diego Association of Government's (SANDAG's) *Regional Energy Strategy Update* (SANDAG 2014) serves as the energy policy blueprint for the San Diego region through 2050 and identifies priority early implementation actions, essential to meeting the region's energy goals:

- Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems;
- Create financing programs to pay for projects and improvements that save energy;
- Utilize the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities;
- Support land use and transportation planning strategies that reduce energy use and GHG [greenhouse gas] emissions;
- Support planning of electric charging and alternative fueling infrastructure; and
- Support the use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The *Regional Energy Strategy Update* identifies the main strategy drivers, including the state's preferred loading order for meeting new energy needs and global climate change and its policy implications. The California Public Utilities Commission and California Energy Commission adopted a preferred loading order to meet the goals for satisfying the state's growing demand for electricity, which would place top priority on increasing energy efficiency and demand response (i.e., temporary reduction or shift in energy use during peak hours), generating new energy from renewable and distributed generation resources, and improvements to clean fossil-fueled generation and infrastructure. Environmental changes caused by

climate change are anticipated to have an increasing impact on energy production and peak demand for electricity.

County of San Diego Renewable Energy Plan

The *County of San Diego Renewable Energy Plan* (Brummitt Energy Associates Inc. and Dersch Design & Engineering 2019) outlines measures to research and develop renewable energy options in San Diego County. The planning effort covers the residential, commercial, and industrial sectors of the county, with a particular focus on unincorporated areas, and presents a comprehensive approach to renewable energy and energy efficiency. A goal of the plan is to increase the use of grid-supplied energy sourced from renewable power.

San Diego County Decarbonization Framework

The San Diego Regional Decarbonization Framework is the County's science-based, holistic approach to guide the region's decarbonization efforts in partnership with the University of California, San Diego School of Global Policy and Strategy and the University of San Diego Energy Policy Initiatives Center and Inclusive Economics.

Recognizing the need for a regional approach to addressing climate change, on January 27, 2021, the County Board of Supervisors voted to create a Regional Decarbonization Framework (County of San Diego 2021d). This framework is intended to inform their collective future actions on reducing GHG emissions in the San Diego region. It is intended to supplement climate action planning efforts that are currently underway and chart collaborative pathways to implement their regional goals.

County of San Diego General Plan

The 2011 *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (General Plan) (County of San Diego 2011b) guides future growth in the unincorporated areas of San Diego County and considers projected growth anticipated to occur within various communities. Goals and policies from several General Plan elements, discussed below, were determined to be applicable to the project.

Land Use Element

The Land Use Element provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources (County of San Diego 2011c). Currently, the County is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In accommodating this growth, the land use plan encourages the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods. The Land Use Element provides a description of all land use designations applicable to land within San Diego County and specifies the permitted uses on those land use designations.

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

- **Policy LU-8.2 Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:
 - In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.

- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.
- **Policy LU-8.3 Groundwater-Dependent Habitat.** Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat.
- **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.
- **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.
- **Policy LU-14.2 Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

Conservation and Open Space Element

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in San Diego County with respect to conservation, management, and utilization of natural and cultural resources, protection and preservation of open space, and provision of park and recreation resources (County of San Diego 2011d).

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

- **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-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.

Safety Element

The purpose of the Safety Element is to provide safety considerations that will help minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and human-made hazards within San Diego County (County of San Diego 2021c).

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

- **Policy S-7.1 Water Supply.** Ensure that water supply infrastructure adequately supports existing and future development and provides adequate water flow to combat structural and wildland fires. Water systems shall equal or exceed the California Fire Code, California Code of Regulations, or, where a municipal-type water supply is unavailable, the latest edition of National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting."
- **Policy S-12.7 Resilient Energy Resources.** Increase the resilience of energy resources and protect critical energy infrastructure and systems from the increased risks associated with climate change.
- **Policy S-12.8 Resilient Water Resources.** Protect water resources vulnerable to climate change and ensure a safe and reliable supply of water.

Mountain Empire Subregional Plan

The project site lies within the Mountain Empire Subregion. The *Mountain Empire Subregional Plan, San Diego County General Plan* (Mountain Empire Subregional Plan) (County of San Diego 2016) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance (including the community of Tierra del Sol), which together compose the Mountain Empire Subregion of southeastern San Diego County. The goals and policies of the Mountain Empire Subregional Plan are intended to be more specific than those of the General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

The following policies of the Mountain Empire Subregional Plan are applicable to the proposed project (County of San Diego 2016):

- **Policy and Recommendation 1.** Maintain unobstructed access to and along the path of existing power transmission facilities and lines.
- **Policy and Recommendation 2.** Any proposed grading, improvements, or other encroachments to the substation or transmission rights-of-way must be reviewed by SDG&E.
- **Policy and Recommendation 3.** Any alteration of drainage patterns affecting the substation or transmission line rights-of-way should be reviewed and approved by SDG&E.
- **Policy and Recommendation 4.** Uses proposed for property adjacent to substations or transmission line rights-of-way should be reviewed for possible impacts to the power facilities and vice versa.
- **Policy and Recommendation 7.** Ensure that all development be planned in a manner that provides adequate public facilities prior to or concurrent with need.

Boulevard Subregional Plan

The project site lies within Boulevard, a subregional planning area within the Mountain Empire Subregion. The Boulevard Subregional Planning Area includes approximately 55,350 acres and contains the

communities of Boulevard, Manzanita, Live Oak Springs, Tierra Del Sol, Crestwood, Jewel Valley, McCain Valley, Miller Valley, and a portion of Bankhead Springs (County of San Diego 2013).

The following policies of the *Boulevard Subregional Planning Area, Mountain Empire Subregional Plan* (Boulevard Subregional Plan) are applicable to the project (County of San Diego 2013):

- **Policy CM 8.6.1** Encourage the use of existing right-of-way when construction of new transmission lines is required, where technically and economically feasible. Additionally, encourage existing right-of-way over new right-of-way alignments for construction of new transmission lines, when existing right-of-way is insufficient.
- **Goal CM 8.7** A safe and healthy environment, for man and nature, free of unhealthy and unsightly litter, unnecessary waste, and improper disposal.
- **Policy CM 8.7.1** Encourage Zero Waste Management goals through increased recycling and reuse.

County of San Diego On-Site Wastewater System Groundwater Policy

On-site wastewater treatment systems discharge pollutants to groundwater and therefore are regulated by the State Water Code. State Water Code Section 13282 allows RWQCBs to authorize a local public agency to issue permits for and to regulate on-site wastewater treatment systems “to ensure that systems are adequately designed, located, sized, spaced, constructed and maintained.” The RWQCB with jurisdiction over San Diego County authorizes the County Department of Environmental Health to issue certain on-site wastewater treatment system permits that ensure compliance with the County’s Onsite Wastewater Treatment Groundwater Policy throughout San Diego County, including within incorporated cities. No city within San Diego County is authorized to issue these permits.

San Diego County Board of Supervisors Policy I-36, Sewer Extensions and Connections in Areas Not Annexed to a Sanitation District

Board of Supervisors Policy I-36 prohibits extension of sewer lines to areas not located within a sanitation district unless annexation has occurred. Where a public health problem has been determined, application to the SDLAFCO for annexation must occur. A temporary connection agreement (subject to SDLAFCO approval) can then be issued prior to completion of annexation proceedings.

County of San Diego Solid Waste Ordinance

The County Board of Supervisors unanimously approved updates to the Solid Waste Ordinance on May 5, 2021 (County of San Diego 2025). This requires all residents and businesses in the -sparsely populated areas of unincorporated San Diego County to comply with new recycling requirements. Sparsely populated areas include census tracts that have a population density of less than 75 people per square mile.

County of San Diego Integrated Waste Management Plan

The County Board of Supervisors adopted the *County of San Diego Integrated Waste Management Plan, Countywide Summary Plan* (County of San Diego 1996) on September 17, 1996. The plan discusses the need for a reduction in solid waste and includes a Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, Countywide Siting Element, and the Countywide Summary Plan. The Countywide Siting Element of the 1996 plan was updated in 2005 (County of San Diego 2005), as required by the Integrated Waste Management Act. It describes the facilities and strategies that will provide adequate capacity for the disposal of solid waste within San Diego County over the next 15 years, including alternatives such as additional waste diversion programs and waste export. The Countywide Siting Element presents a strategy to assist local governments and private industry in planning

for integrated waste management and the siting of solid waste disposal facilities. The goals and policies listed in the Countywide Siting Element are intended to assist all jurisdictions to plan and implement a solid waste management program.

County of San Diego Construction and Demolition Debris Recycling Ordinance

The County of San Diego Construction and Demolition Debris Recycling Ordinance (Sections 68.511 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 Debris Recycling Ordinance.

3.1.10.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The County's guidelines for determining significance do not explicitly address utilities and service systems. Therefore, for the purpose of this EIR, Appendix G (XIX) of the State California Environmental Quality Act (CEQA) Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. The project would be considered to have a significant effect on utilities and service systems if the effects exceed the significance criteria described below:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

The project would be unoccupied and would be operated remotely. As discussed in Section 3.2, Effects Found Not Significant as Part of the Initial Study, the project would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities (see Appendix A). The project does not propose any use types that would require wastewater treatment and would not interfere with wastewater treatment providers' service capacity. Finally, while construction of the project would temporarily generate solid waste, operation would not result in solid waste. Therefore, the analysis of project effects below does not include detailed discussion of project impacts to wastewater, natural gas, or telecommunications facilities.

Electric Power

Guidelines for the Determination of Significance

A significant impact would result if the project would:

- Require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.

Analysis

The project would include installation of new electric infrastructure and connections to existing infrastructure to improve electrical reliability for the San Diego region. The project would interconnect with the existing SDG&E Boulevard substation. The electric power and telecommunications would be attached to existing distribution lines, telecommunications infrastructure, and the project's substation. There would be no need to relocate any existing electric power or telecommunications structures. Given the proximity of existing facilities to the project site and the lack of employees or other occupants at the site, the project would not require or result in the relocation or construction of electric power facilities during construction, operation, maintenance, and future decommissioning. Impacts would be **less than significant**.

Water/Stormwater

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 State 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 relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Analysis

Utility Infrastructure

The project would be unoccupied and would be operated from an off-site supervisory control and data acquisition (SCADA) system. Canyon Wireless would be the telecommunication provider for the SCADA system, and no improvements would be needed in order to serve the project. For these reasons, the project would not require or result in the relocation or construction of new or expanded water or wastewater treatment, natural gas, or telecommunications facilities which could cause significant environmental effects. Furthermore, the project is a solar energy generation and storage facility that would generate electric power through solar energy and thus would not require or result in the relocation or construction of new or expanded electric power facilities.

Trenching is required for installation of the AC medium-voltage underground electrical collection system, generation-tie (gen-tie) line, and telecommunication lines. Trenches would be approximately 3 to 4 feet deep and 1 to 3 feet wide and would connect all the solar array areas. The trenches would be filled with base materials above and below the conductors and communication lines to ensure adequate thermal conductivity and electrical installation characteristics. The topsoil from trench excavation would be set aside before the trench is backfilled and would ultimately compose the uppermost layer of the trench. Excess material from the foundation and trench excavations would be used for site leveling. Where possible, trenching would be located beneath existing driveways and access roads to minimize disturbance.

Water Supply

Water used during project construction would be supplied by JCSD, located in Jacumba Hot Springs, California. The groundwater resources investigation report for the project prepared an updated estimate of groundwater in storage, including methodology, calculations, and results (see Appendix G.5). The estimate evaluated whether the water demands would maintain at least 50% of groundwater in storage over the 2,061-acre Jacumba Valley alluvial aquifer. Based on foreseeable renewable energy projects, JCSD is proposing to extract 278 af of groundwater over 24 months. The groundwater resources investigation report analyzed a one-time extraction of up to 139 af per year for 2 years from JCSD nonpotable wells which was compared to historical groundwater extraction rates from the Jacumba Valley alluvial aquifer. Groundwater recharge is not included in the methodology to evaluate a worst-case scenario during a drought period with little to no recharge to the Jacumba Valley alluvial aquifer.

Estimated Groundwater Demand by the Proposed Project

In 2023, the Jacumba Valley Groundwater Basin was estimated to have 8,639 af in storage (Appendix G.5). The proposed groundwater extraction amount of 278 af over approximately 2 years from the Highland Center Well with backup provided from the Park Well would be equivalent to 6.7% of the total estimated maximum annual production of 2,066 af/yr from the entire Jacumba Valley alluvial aquifer. Assuming no recharge to the aquifer, this proposed groundwater extraction amount from the Highland Center Well and Park Well would reduce groundwater in storage by 1.5% annually for 2 years.

Construction

During construction activities, the project would primarily use water for dust control during earthwork and grading. Concrete used during construction would be imported from off-site, and no concrete mixing would take place. No pre-wetting of the ground surface prior to grading would take place, and no water demand for noxious weed mitigation is assumed.

Phase I of the project would be constructed over 125 acres with 75,314 cubic yards of grading. The Phase I gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area and daily dust control water would be applied. The Phase I construction water demand estimate is 14.8 af (Table 3.1.10-2). See Appendix G.4 for additional details regarding construction water demand.

Table 3.1.10-2. Estimated Construction Water Demand for Phase I

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	11.2
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	2.5
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	1.05
Total Phase I Construction Water Use		14.8

Source: INTERA (2025a) (see Appendix G.4)

Phase II of the project would be constructed over 436 acres with 274,686 cubic yards of grading. The Phase II gen-tie line construction would disturb an additional 0.2 acres. Water used for hydroseeding would be applied at 2,500 gallons per acre to the disturbed area, and daily dust control water would be applied. The Phase II construction demand estimate is 53.1 af (Table 3.1.10-3). See Appendix G.4 for additional details regarding construction water demand.

Table 3.1.10-3. Estimated Construction Water Demand for Phase II

Activity	Description	Total Water Demand (af)
Mass Grading	Grading of 75,314 cubic yards. Uses an estimated on-site soil moisture content of 2% and optimum soil moisture content of 9% to gain compaction to determine required input of water	40.8
Daily Dust Control	Assumes 3,300 gallons per acre with or without tackifier. Half of the construction area, would not be continuously disturbed, and one application of water with tackifier would be sufficient for dust suppression per day. Water and tackifier would be applied to the remaining area three times per day.	8.8
Other Construction Needs	Water necessary for other construction needs, such as filling tanks for fire protection and hydroseeding	3.4
Total Phase II Construction Water Use		53.1

Source: INTERA (2025a) (see Appendix G.4)

Operation and Maintenance

Project operation would require water for nonpotable use, dust control, panel washing, and fire protection. No landscaping irrigation is proposed for the operation and maintenance (O&M) of the proposed project. During operation, the project would require water for panel washing up to one time per year. Similar solar photovoltaic operations use approximately 0.3 gallons of water per square yard of panel. Based on the planned 20-MW capacity of the proposed project during Phase I, approximately 50,700 panels at approximately 30.8 square feet per panel totaling 1,560,000 square feet (173,333 square yards) may be washed up to one time per year. Annual water demand for Phase I panel washing would be up to approximately 0.16 af. Based on the planned 80-MW capacity of the proposed project during Phase II, approximately 202,744 panels at approximately 30.8 square feet per panel totaling 6,383,440 square feet (709,271 square yards) may be washed up to one time per year. Annual water demand for Phase II panel washing would be approximately 0.65 af. Once both phases are operational, the annual panel washing water demand would be 0.81 af (see Appendix G.4).

Decommissioning

Activities associated with decommissioning would not include substantial earthmoving. It is estimated that the amount of water necessary to dismantle the solar facility would be less than that required for construction, because there would be no need to use water to hydrate and compact on-site fills. The activities associated with decommissioning would not include grading. The only water demand during decommissioning would be for dust suppression and would be supplied by two 6,000-gallon water trucks. Phase I would require a water demand of 2.4 af for decommissioning, and Phase II would require 4.2 af for decommissioning, for a total of 6.6 af (see Appendix G.4).

Total Estimated Water Demand for the Proposed Project

The Phase I construction water demand estimate is 14.8 af, and the Phase II construction demand estimate is 53.1 af. The total estimated construction water demand is 67.9 af. Once both phases are operational, the annual panel washing water demand would be 0.81 af per year. Decommissioning of both phases would

require 6.6 af of water. Overall, the project would use approximately 98.8 af of nonpotable water during construction, O&M, and decommissioning, assuming a project lifetime of 30 years.

Estimated Groundwater Demand by All Current Users of the Basin

Historically, groundwater demand from the Jacumba Valley alluvial aquifer has been estimated to be upward of 2,066 af/yr. However, groundwater production has drastically decreased since agriculture irrigation ceased on Jacumba Valley Ranch. The current groundwater demand from the Jacumba Valley alluvial aquifer is estimated to be 15 af/yr. Based on foreseeable renewable energy projects, including the proposed project, JCSD is proposing to extract 278 af of groundwater over 24 months. Totaling the current use of 15 af and the 1-year construction water demand of 139 af, the proposed demand would result in a 1-year extraction amount of 153 af from the Jacumba Valley alluvial aquifer.

The future probable maximum nonpotable groundwater demand for JCSD wells is estimated based on the demand of the proposed project and reasonably foreseeable projects to evaluate potential impacts pursuant to the County's guidelines for significance. The *Updated Draft Groundwater Resources Investigation Report – Flat Creek Watershed Analysis* (see Appendix G.5) provides annual water demand estimates for the proposed project, as well as the reasonably foreseeable projects, including construction, O&M, and decommissioning over the expected life of the project. The total nonpotable JCSD water demand for the proposed project and reasonably foreseeable projects over a 35-year period is 487.6 af.

Stormwater

As discussed in Section 2.4, Hydrology and Water Quality, a range of state and local water quality regulations and ordinances apply to the project that require the Applicant to submit and implement a project-specific stormwater pollution prevention plan (SWPPP) during construction and a standard stormwater quality management plan (SWQMP) for O&M activities (see Appendix G.3).

The preliminary drainage study (Appendix G.1, Preliminary Drainage Study) determined that the project would produce approximately 10.49 acres (0.0163 square mile) of impervious area. The impervious area would include the proposed concrete pads for electrical equipment, solar panel posts, and water tanks. The proposed all weather access road would remain pervious. The drainage study determined that the additional impervious area represents 0.0068% of the watershed that is contributing to the drainage passing through the proposed site. This increase in impervious area constitutes a small enough area that would not change the overall drainage pattern. The water runoff would flow overland across the project site in a similar manner as it does in the pre-developed state. Thus, the additional impervious area would have minimal to no impact on existing watershed hydrology (see Appendix G.1).

Because the project would consist of more than 1 acre, the Applicant would be required to submit a Notice of Intent to the SWRCB to obtain approval to carry out construction activities under the Construction General Permit. This permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction-phase impacts related to stormwater (and some non-stormwater) discharges. Permit requirements would include preparation of a SWPPP, implementation and monitoring of best management practices (BMPs), implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the Colorado River Basin RWQCB. The SWPPP would apply to the project as a whole and would include reference to the major construction areas, temporary materials staging areas, access roads, and work associated with gen-tie line facilities. BMPs to be implemented in accordance with the SWPPP and the standard SWQMP would address alteration of drainage patterns, velocity and peak flow rates, and erosion control.

Conclusion

In addition, to further ensure that water purchased from JCSD would not impact the aquifers accessed by JCSD's nonpotable water production wells, a groundwater monitoring and mitigation plan (GMMP) has been prepared for the proposed project (see Appendix G.2). Incorporation of **PDF-HY-2** would ensure that the project would implement the GMMP (see Section 2.4, Hydrology and Water Quality). The GMMP details groundwater thresholds for off-site well interference and groundwater-dependent habitat, so with the implementation of **PDF-HY-2**, groundwater-level monitoring would be performed in several wells to record groundwater levels during groundwater extraction. Therefore, adequate water sources are available to meet the construction and operational needs of the project, and impacts would be **less than significant**.

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 State 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:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Analysis

The project includes the construction and operation of an unoccupied renewable energy solar and battery storage facility. As discussed in the Initial Study prepared for the project, the project would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities (see Appendix A). The project would not require employees or other occupants at the site, does not propose any use types that would require wastewater treatment, and would not interfere with wastewater treatment providers service capacity. Impacts related to infrastructure capacity would be less than significant.

The construction of the project would temporarily generate solid waste. During construction, solid waste would be appropriately sorted and recycled, when feasible, in accordance with the California Green Building Standards Code (CALGreen) (11 California Code of Regulations 24) (i.e., a minimum 65% of the nonhazardous construction and demolition waste) and the County Construction Demolition and Debris Recycling Ordinance (County Code Sections 68.511–68.518). Further, construction waste would meet local standards of solid waste and recycling policies as defined in the Conservation and Open Space Element of the County's General Plan and in Sections 68.501 through 68.612 (solid waste management) of the County Code. The project does not propose any new structures or use types that would generate solid waste. Therefore, impacts related to solid waste generation and regulatory compliance would be **less than significant**.

3.1.10.4 Cumulative Impact Analysis

The cumulative analysis for utilities and service system impacts was performed using the projects listed in Table 1-4 in Chapter 1.0, Project Description, Location, and Environmental Setting. Cumulative projects

in the area include several existing and proposed wind and solar renewable energy projects as well as other facilities located within the JCSD service area.

The list of cumulative projects includes several existing and proposed wind and solar renewable energy projects, public facilities improvement projects, and the Rough Acres Ranch Campground (which has its own groundwater supply). These projects would increase demand for JCSD's water supply. The groundwater resources investigation report (see Appendix G.5) evaluates the cumulative impacts of current and future projects with an appreciable water demand within the watershed study area. The groundwater resources analysis incorporated historical climate data, which include historical periods of increased rainfall and periods of extended drought. The results of this analysis concluded that reduction in groundwater storage, well interference impacts, and impacts to groundwater-dependent habitat and water quality would be less than significant. In addition, other renewable energy projects occurring in the area would be required to prepare a GMMP similar to that for the project that would ensure that groundwater-level monitoring would be performed in groundwater wells and that groundwater levels would be recorded during groundwater extraction. Thus, the JCSD would have sufficient water supplies to serve the project and reasonably foreseeable future development in the project area. Therefore, the project, along with other projects occurring in the area, **would not result in a cumulatively considerable impact.**

3.1.10.5 Project Design Features

All utilities and service systems impacts were determined to be less than significant; therefore, no mitigation measures are required. However, as presented in Chapter 2.4, Hydrology and Water Quality, the Applicant has identified and committed to including the following project design feature:

PDF-HY-2 Implementation of GMMP for JCSD. To ensure nonpotable water purchased from the Jacumba Community Services District (JCSD) does not result in impacts to the aquifers accessed by JCSD's nonpotable water production wells (Highland Center Well and Park Well), the Starlight Solar Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plan (GMMP) for the Flat Creek watershed.

A groundwater monitoring report will be completed by a Professional Geologist or Professional Engineer licensed in the state of California and will be submitted to County Planning and Development Services (PDS) annually no later than 28 days following the end of the calendar year. Groundwater monitoring reports should be submitted for 5 years after proposed project construction has commenced. After 5 years, County PDS should determine if continuous reporting is required based on the effects of groundwater extraction from the previous 5 years. The annual reports will include the following information:

- Groundwater-level hydrographs and tabulated groundwater-level data for each accessible well in the groundwater-monitoring network
- Tabulated groundwater production volumes from JCSD nonpotable wells
- Documentation of any changes in well pumping or groundwater well conditions for wells in the groundwater-monitoring network
- Documentation of groundwater-dependent habitat monitoring, if necessary, as described in the GMMP

If the baseline groundwater levels at the wells included in the groundwater monitoring network are exceeded by 5 feet, County PDS will be notified via letter and email within 1 working day of the exceedance, or immediately after the exceedance is recognized. Additionally, if groundwater-level thresholds at the off-site wells are exceeded by their

respective thresholds, pumping of JCSD nonpotable wells for the project will cease and County PDS will be notified via letter and email within 1 working day, or immediately after the exceedance is recognized.

3.1.10.6 Conclusion

The project involves the construction and operation of an unoccupied solar energy generation and battery storage facility. The project would be unoccupied, would not require employees or other occupants at the site, and would not use any natural gas. The project includes the installation of all necessary electric infrastructure and facilities and would also connect to existing infrastructure. No additional electric power facilities other than those included in the project design would be required. As discussed in the groundwater resources investigation report (see Appendix G.5), the JCSD would have sufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the impacts to utilities and service systems would be **less than significant**.