3.11 Utilities/Service Systems

This section includes an evaluation of potential impacts for identified Utilities/Service Systems that could result from implementation of the project. Utilities/Service Systems include wastewater treatment facilities, stormwater drainage facilities, water supply and treatment, and solid waste disposal. The impact analysis provides an evaluation of potential impacts to Utilities/Service Systems based on criteria derived from CEQA Guidelines in conjunction with actions proposed in Chapter 2, Project Description. Development Design & Engineering prepared the *Water Supply Assessment* (WSA) for the Wister Solar Development Project. This report is included in Appendix L of this EIR.

The IS/NOP prepared for this EIR determined that impacts with regards to solid waste disposal, storm drainage, and wastewater treatment would be less than significant.

Solid waste generation would be minor for the construction and operation of the project. Solid waste will be disposed of using a locally-licensed waste hauling service, most likely Allied Waste. There are over 20 active solid waste facilities listed in Imperial County in the CalRecycle database. Trash would likely be hauled to the Niland Solid Waste Site (13-AA-0009) located in Niland. The Niland Solid Waste Site has approximately 318,669 cubic yards of remaining capacity and is estimated to remain in operation through 2056 (CalRecycle n.d.). Therefore, there is ample landfill capacity in the County to accommodate the minor amount of solid waste generated by construction and operation of the project.

The project does not require expanded or new stormwater drainage facilities (other than on-site retention areas and earthen drainage channels) because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events. Water from solar panel washing would continue to percolate through the ground, as a majority of the surfaces within the project site would remain pervious.

3.11.1 Environmental Setting

Groundwater

The proposed project is located within the East Salton Sea Basin, which includes the Chocolate Mountains and the northeastern margin of the Imperial Valley. The groundwater storage capacity of the East Salton Sea Basin was estimated at 360,000 acre-feet. Groundwater usage in the East Salton Sea Basin is limited due to generally poor water quality and limited inhabitants. Extraction rates for the East Salton Sea Basin were last estimated in 1952 at 6 acre-feet/year, which is 3 percent of the estimated recharge rate of 200 acre-feet/year. Limited development in the East Salton Sea Basin suggests that current extraction rates are similar. However, a lack of recent data limits the ability update this estimate. Furthermore, surface water from the Colorado River is conveyed into the Imperial Valley through a network of canals, laterals, and reservoirs, which has further reduced the need to develop groundwater resources. Groundwater in the East Salton Sea Basin is present in alluvial aquifers at depths up to several hundred feet, and with generally high transmissivities (Appendix L of this EIR).

At the project site, groundwater may also be present in an alluvial aquifer 40-50 feet below ground surface (bgs). Historically, groundwater recharge was significant in the vicinity of the earthen lined Coachella Canal. The replacement of the canal with a concrete lined channel has greatly reduced recharge to the adjacent alluvial aquifers. Near the project site, the Coachella Canal was concrete lined in the late 2000s. The East Highline Canal remains earthen-lined, which likely leads to recharge into the shallow alluvial aquifers near the project site. Recharge from precipitation is generally limited

due to low precipitation rates and high evaporation potential. Recharge rates may be higher in the Chocolate Mountains due to higher precipitation rates at higher elevations (4-6 inches/year). Recharge events are likely limited to larger storm events, which may generate runoff and seepage along ephemeral channels. Recharge rates from precipitation were estimated at 0.019 inches/year.

3.11.2 Regulatory Setting

This section identifies and summarizes laws, policies, and regulations that are applicable to the project.

State

Senate Bill 610

With the introduction of SB 610, any project under CEQA shall provide a WSA if:

- The project meets the definition of the Water Code Section 10912:

  For the purposes of this part, the following terms have the following meanings:

  (a) ‘‘Project’’ means any of the following:

  (1) A proposed residential development of more than 500 dwelling units.

  (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

  (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

  (4) A proposed hotel or motel, or both, having more than 500 rooms.

  (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

  (6) A mixed-use project that includes one or more of the projects specified in this subdivision.

  (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

  (b) If a public water system has fewer than 5,000 service connections, then ‘‘project’’ means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system’s existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system’s existing service connections.

California Water Code

Water Code Sections 10656 and 10657 restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resources. In addition, Water Code Section 10910 describes the WSA that must be undertaken for projects referred under PRC Section 21151.9, including an analysis of groundwater supplies. Water agencies are given 90 days from the start of

consultation in which to provide a WSA to the CEQA lead agency. Water Code Section 10910 also specifies the circumstances under which a project for which a WSA was once prepared would be required to obtain another assessment. Water Code Section 10631 directs that contents of the urban water management plans include further information on future water supply projects and programs and groundwater supplies.

Water Quality Control Plan for the Colorado River Basin

The Water Quality Control Plan for the Colorado River Basin (or Basin Plan) is designed to preserve and enhance water quality in the Region and to protect the beneficial uses of all regional waters for the benefit of present and future generations. The Basin Plan contains the Region's beneficial uses for ground and surface waters, water quality objectives to protect beneficial uses, and implementation programs to achieve water quality objectives. The Basin Plan fulfills state and federal statutory requirements for water quality planning, thereby preserving and protecting ground and surface waters of the Colorado River Basin Region.

Local

County of Imperial General Plan

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. Table 3.11-1 provides a consistency analysis of the applicable Imperial County General Plan goals and objectives from the Conservation and Open Space Element, and Renewable Energy and Transmission Element, as they relate to the proposed project. While the EIR analyzes the project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.11-1. County of Imperial General Plan Consistency Analysis – Water Service

Applicable General Plan Goals and Policies	Consistency Determination	Analysis
Conservation and Open Space Element		
Preservation of Water Resources, Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	Water will be required during construction, operation, and decommissioning/restoration of the project. During construction, operation, and decommissioning of the project, non-potable water would be obtained from an on-site groundwater well.

Table 3.11-1. County of Imperial General Plan Consistency Analysis – Water Service

Applicable General Plan Goals and Policies	Consistency Determination	Analysis
Renewable Energy and Transmission Element		
Objective 1.6: Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.	Consistent	Water will be required during construction, operation, and decommissioning/restoration of the project. During construction, operation, and decommissioning of the project, non-potable water would be obtained from a proposed on-site groundwater well. As described in Chapter 2, Project Description, the construction of a groundwater well requires approval of a Conditional Use Permit (CUP). Approval of the CUP would be contingent upon the availability of groundwater to serve the project and ability to recharge the aquifer so that groundwater supplies are not substantially decreased by the proposed project.

Source: County of Imperial 1993

3.11.3 Impacts and Mitigation Measures

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to utilities/service systems are considered significant if any of the following occur:

Water Supply

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed

As stated previously, it was determined through the preparation of the IS/NOP that impacts with regards to solid waste disposal and policies, storm water, and wastewater treatment would be less than significant. Therefore, these issue areas will not be discussed further. Impacts associated with water quality are discussed in Section 3.8, Hydrology/Water Quality, of this EIR.

Methodology

Project-specific data was used to calculate the project's water consumption during construction and at build-out collectively ("operational").

Impact Analysis – Solar Energy Facility and Gen-Tie Line

Impact 3.11-1 Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Construction

The proposed project is anticipated to take approximately 6-9 months from the commencement of the construction process to complete. Construction water needs would be limited to earthwork, soil conditioning, dust suppression, and compaction efforts. As shown in Table 3.11-2, the proposed project would require approximately 10.22 acre-feet of water during construction. The proposed project may involve the construction of a groundwater well and use of groundwater for construction. As described in Chapter 2, Project Description, the construction of a groundwater well requires approval of a Conditional Use Permit (CUP). Approval of the CUP would be contingent upon the availability of groundwater to serve the project and ability to recharge the aquifer so that groundwater supplies are not substantially decreased by the proposed project.

Table 3.11-2. Construction Water Demand

Construction Phase	Water Demand Per Day (Gallons)	Water Demand (Acre Feet Per Day)
Phase 1	900,000	2.76
Phase 2	2,130,000	6.54
Phase 3	300,000	0.92
Total	3,330,000	10.22

Source: Appendix L of this EIR

Operations and Maintenance

Water would be required for periodic cleaning of the solar PV panels, dust suppression, and for the on-site fire tank. It is anticipated that the solar PV panels will be washed up to four times per year to ensure optimum solar absorption by removing dust particles and other buildup. As shown in Table 3.11-3, the proposed project would require approximately 1.37 acre feet annually (AFY) during operations. During operations, the project would utilize groundwater from a proposed on-site groundwater well.

Table 3.11-3. Operational and Decommissioning Water Demand

	Water Demand (Acre Feet Per Year)	Water Demand (Acre Feet – 30 Year Project Life)
Solar panel washing, dust suppression and fire tank water	1.37	41.1
Decommissioning	5	5

Source: Appendix L of this EIR

Decommissioning

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. As shown in Table 3.11-3, the proposed project would require approximately 5 AFY during decommissioning.

Total Annual Water Demand

According to the WSA prepared by Development Design & Engineering (Appendix L of this EIR), the anticipated water demand for construction, operation, and decommissioning of the project is estimated to be 56.32 AF, for an annualized demand of 1.88 AFY for the 30-year project life (Table 3.11-4).

The groundwater storage capacity of the East Salton Sea Basin was estimated at 360,000 acre-feet. Groundwater usage in the East Salton Sea Basin is limited due to generally poor water quality and limited inhabitants. Extraction rates for the East Salton Sea Basin were last estimated in 1952 at 6 acre-feet/year, which is 3 percent of the estimated recharge rate of 200 acre-feet/year. Based on the amount of groundwater within the basin and the recharge rate of 200 acre-feet/year the project supply is able to meet the project demand of the project (Appendix L of this EIR). Therefore, the proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources, and impacts would be less than significant.

Table 3.11-4. Amortized Water Demand

Phase	Water Demand (Acre Feet Per Year – for 30 Years)
Construction	10.22
Operational	41.1
Decommissioning	5
Total	56.32
Amortized (30 years)	1.88

Source: Appendix L of this EIR

Mitigation Measure(s)

No mitigation measures are required.

Impact Analysis – Fiberoptic Cable

The proposed project includes the installation of approximately two miles of fiber optic cable to connect the proposed substation to the existing Niland Substation. The amount of water required to install the fiberoptic cable is included in the overall water estimates for construction and operations of the solar energy facility. As described above, based on the amount of groundwater within the basin and the recharge rate of 200 acre-feet/year the project supply is able to meet the project demand of the project. This is considered a less than significant impact.

3.11.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

As shown in Table 3.11-3, the proposed project would require approximately 5 AFY during decommissioning. This water need would be less than what is required for construction and operation of the project site. Therefore, a less than significant impact is identified and no mitigation is required.

Residual

The project would not result in significant impacts to the water supply of Imperial County; therefore, no mitigation is required. The proposed project would not result in residual impacts.

This page is intentionally blank.