

3.15 Utilities and 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. DuBose Design Group prepared the *Water Supply Assessment (WSA)* for the Brawley Solar Energy Facility. This report is included in Appendix H 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. Therefore, these impacts are not addressed in detail in this EIR; however, the rationale for eliminating these issues is discussed in Chapter 6.0, Effects Found Not Significant.

3.15.1 Existing Conditions

The Imperial Valley area is located within the south-central part of Imperial County and is bound by Mexico on the south, the Algodones Sand Hills on the east, the Salton Sea on the north and San Diego County on the northwest, and the alluvial fans bordering the Coyote Mountains and the Yuha Desert to the southwest. Imperial Valley depends on the Colorado River for its water, which the Imperial Irrigation District (IID) transports, untreated, to delivery gates for agricultural, municipal, industrial (including geothermal and solar energy), environmental (managed marsh), recreational (lakes), and other non-agricultural uses. IID supplies the cities, communities, institutions and Golden State Water (which includes all or portions Calipatria, Niland, and some adjacent Imperial County territory) with untreated water that they treat to meet state and federal drinking water guidelines before distribution to their customers (Appendix H of this EIR).

The project site is located within IID's Imperial Unit and district boundary and as such is eligible to receive water service. IID has adopted an Interim Water Supply Policy (IWSP) for Non-Agricultural Projects, from which water supplies can be contracted to serve new developments within IID's water service area. The IWSP sets aside 25,000 acre-feet annually (AFY) of IID's Colorado River water supply to serve new non-agricultural projects. As of October 2021, a balance of 23,800 acre-feet per year (AFY) remain available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such projects. Water for the project site will continue to be supplied by the adjacent Best Canal Lateral X through an IWSP Water Supply Agreement with IID to process the untreated Colorado River water for the proposed project. IID delivers untreated Colorado River water to the project site for agricultural uses through the following gates and laterals. The 10-year record for 2011-2020 of water delivery accounting is shown in Table 3.15-1.

Table 3.15-1. Historic 10-Year Historic Delivery (AFY): 2011 through 2020

Canal/Gate	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Best 115	0	0	226.9	412.3	435.8	425.0	307.9	513.8	417.3	317.2
Best 114	0	0	136.9	230.9	259.2	257.0	262.0	340.9	381.1	247.2
Best 113	0	0	111.4	286.1	212.8	223.4	350.5	282.8	197.2	247.5
Best 110	0	0	127.4	161.4	172.6	142.4	121.9	171.0	204.5	163.0
Total	0	0	602.6	1090.7	1080.4	1047.8	1042.3	1308.5	1200.1	974.9

Source: Appendix H of this EIR
 AF = acre-feet per year

3.15.2 Regulatory Setting

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

After review of Water Code Section 10912, the solar facility is deemed a “project” because it is a proposed industrial use occupying more than 40 acres of land.

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) prepared by the Colorado River RWQCB (Region 7) identifies beneficial uses of surface waters within the Colorado River Basin region, establishes quantitative and qualitative water quality objectives for protection of beneficial uses, and establishes policies to guide the implementation of these water quality objectives.

Local

Imperial Integrated Regional Water Management Plan

The Imperial Integrated Regional Water Management Plan (IRWMP) serves as the governing document for regional water planning to meet present and future water resource needs and demands by addressing such issues as additional water supply options, demand management and determination and prioritization of uses and classes of service provided. In November 2012, the Imperial County Board of Supervisors approved the Imperial IRWMP, and the City of Imperial City Council and the IID Board of Directors approved it in December 2012. Through the IRWMP process, IID presented to the region stakeholders options in the event long-term water supply augmentation is needed, such as water storage and banking, recycling of municipal wastewater, and desalination of brackish water.

Imperial Irrigation District Interim Water Supply Policy for Non-Agricultural Projects

The IWSP was adopted by the IID Board on September 29, 2009. The IWSP provides a mechanism to address water supply requests for projects being developed within the IID service area. The IWSP designates up to 25,000 AFY of IID's annual Colorado River water supply for new non-agricultural projects, provides a mechanism and process to develop a water supply agreement for any appropriately permitted project, and establishes a framework and set of fees to ensure the supplies used to meet new demands do not adversely affect existing users by funding water conservation or augmentation projects, as needed.

Depending on the nature, complexity, and water demands of the proposed project, new projects may be charged a one-time reservation fee and an annual water supply development fee for the contracted water volume used solely to assist in funding new water supply projects. All new industrial use projects are subject to the fee, while new municipal and mixed-use projects shall be subject to the fee if the project water demands exceed certain district-wide average per capita use standards. The applicability of the fee to mixed-use projects will be determined by IID on a case-by-case basis, depending on the proportion of types of land uses and water demand proposed for a project.

Temporary Land Conversion Following Policy

The Temporary Land Conversion Following Policy was adopted by the Board on October 28, 2013, to provide a mechanism for IID to administer apportionment of the district's quantified annual supply of Colorado River water; IID board approved a resolution repealing the Equitable Distribution Plan (EDP) on February 6, 2018.

In order to facilitate new development and economic diversity in Imperial County; as well as ensure that the long-term, temporary, land use designations are conducive to a coordinated land use/water supply policy as envisioned in the Imperial IRWMP the IID Temporary Land Conversion Following Policy was developed. This policy provides a framework for a temporary, long-term following program to work in concert with the IWSP and provides direction for certain private projects that, if implemented, will temporarily remove land from agricultural production within the district's water service area include renewable solar energy and other non-agricultural projects. Such projects may need a short-term water supply for construction and decommissioning activities and longer-term water service for facility operation and maintenance or for treating to potable water standards.

County of Imperial General Plan

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. Table 3.15-2 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 3.15-2. County of Imperial General Plan Consistency Analysis – Water Service

Applicable General Plan Goals and Policies	Consistency Determination	Analysis
<i>Conservation and Open Space Element</i>		
Preservation of Water Resources, Goal 6: The County will conserve, protect, and enhance water resources in the County.	Consistent	Since the project would temporarily convert farmland into a non-agricultural use, the project would reduce the need for IID to fallow irrigation; thereby, reducing agricultural water demand.
Preservation of Water Resources, Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs.	Consistent	Currently, groundwater quality in the region is poor. However, since the project would temporarily convert farmland into a non-agricultural use, the project would reduce the amount of water used on site; thereby, reducing potential surface and groundwater pollution from agricultural uses. Additionally, the project would be required to comply with NPDES permits and regulations to address pollutants from run-off that may result during construction and operation of the project.
<i>Renewable Energy and Transmission Element</i>		
Objective 1.6: Encourage the efficient use of water resources required in the operation of renewable energy generation facilities.	Consistent	Water for the project site will be used on site during construction, operation, and decommissioning/restoration for non-drinking non-potable water needs. Additionally, as further detailed in Section 3.15.3, the project would result in a decrease in water use compared to the current active agricultural uses on the project site.

Source: ICPDS 1993
 IID = Imperial Irrigation District

3.15.3 Impacts and Mitigation Measures

Thresholds of Significance

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

Water Supply

- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years

Methodology

The WSA (Appendix H of this EIR) was prepared using project-specific data to calculate the project's water consumption during construction and at build-out collectively ("operational").

Impact Analysis

Impact 3.15-1 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

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 3.15-3, the proposed project would require approximately 32.5 AFY of water during construction. This includes the 20,000 gallons of water that will need to be stored on the project site during construction per Imperial County Fire Standards.

OPERATIONS AND MAINTENANCE

As shown in Table 3.15-3, estimated annual water consumption for operation and maintenance of the proposed project, including periodic PV module washing, would be approximately 86.8 acre feet or 3.1 AFY, which would be trucked to the project site as needed. This includes the 180,000 gallons of water that will need to be stored on the project site during operations per Imperial County Fire Standards. No full-time site personnel would be required on-site during operations and approximately two employees would only be onsite up to four times per year to wash the solar panels to ensure optimum solar absorption by removing dust particles and other buildup.

DECOMMISSIONING

If at the end of the Power Purchase Agreement (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 3.15-3, total water demand during decommissioning is estimated to be 32.5 AFY.

TOTAL AND ANNUAL WATER DEMAND

According to the WSA (Appendix H of this EIR), the anticipated water demand for construction, operation, and decommissioning of the project is estimated to be 151.8 AF, for an annualized demand of 5.06 AFY for the 30-year project life (Table 3.15-3).

Table 3.15-3. Project Water Use

Water Use	Expected Years	Total
Construction Water ¹	1	32.5 AF
Total for Water Construction		32.5 AF
Processing, Daily Plant Operations & Mitigation ²	28	3.1 AFY



Table 3.15-3. Project Water Use

Water Use	Expected Years	Total
Total Water Usage for Processing Daily Plant Operations & Mitigation		86.8 AF
Project Decommissioning	1	32.5 AF
Total for Project Decommissioning		32.5 AF
Total Water Usage for Project	30	151.8 AF
Amortized	30	5.06 AFY

Source: Appendix H of this EIR

1 – 20,000 gallons of water will need to be stored on site during construction per Imperial County Fire Standards.

2 – 180,000 gallons of water will need to be stored on site per Imperial County Fire Standards for operations.

AF = acre-feet; AFY = acre-feet per year

WATER SUPPLY

Water for the project site will be supplied by the adjacent Best Canal Lateral X through an IWSP Water Supply Agreement with IID to process the untreated Colorado River water for the proposed project. The IWSP sets aside 25,000 acre-feet annually (AFY) of IID’s Colorado River water supply to serve new non-agricultural projects. As of October 2021, a balance of 23,800 AFY remain available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such projects. As shown in Table 3.15-4, the proposed project’s water demand during construction for a period of 1 year using approximately 32.5 AFY, represents approximately 0.03% of the annual unallocated supply set aside for new non-agricultural projects. The proposed project’s total water demand for operations is approximately 3.1 AFY for 28 years and represents approximately 0.01% of the annual unallocated supply set aside for new non-agricultural projects. Decommissioning is expected to take 1 year and use approximately 32.5 AFY, representing approximately 0.03% of the annual unallocated supply set aside for new non-agricultural projects. As shown in Table 3.15-4, the project is expected to consume 151.8 AF for the 30-year lifespan of the project which would equate to 5.06 AFY amortized representing 0.02% of the annual unallocated supply set aside for new non-agricultural projects. Thus, the proposed project’s estimated water demand would not affect IID’s ability to provide water to other users in IID’s water service area. 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 3.15-4. Amortized Project Water Summary

Project Phase	Project Water Use	Years	Total Combined (AF)	IWSP (AFY)	% of Remaining Unallocated IWSP per Year
Construction	32.5 AFY	1	32.5 AF	23,800 AFY	0.03%
Operations	3.1 AFY	28	86.8 AF	23,800 AFY	0.01%
Decommissioning	32.5 AFY	1	32.5 AF	23,800 AFY	0.03%

Total	5.06 AFY	30	151.8 AF	23,800 AFY	0.02%
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Source: Appendix H of this EIR

Mitigation Measure(s)

No mitigation measures are required.

3.15.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

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 3.15-3, total water demand during decommissioning is estimated to be 32.5 AFY. As described above, the proposed project’s estimated water demand, which includes decommissioning, would not affect IID’s ability to provide water to other users in IID’s water service area. 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.

Residual

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