4.12 UTILITIES AND SERVICE SYSTEMS

This section includes an evaluation of potential impacts for identified utilities and service systems that could result from implementation of the Project. Utilities and service systems include water supply and treatment, wastewater treatment facilities, stormwater drainage facilities, electricity, natural gas, telecommunication facilities, and solid waste disposal. The impact analysis provides an evaluation of potential impacts to utilities and service systems based on criteria derived from CEQA Guidelines in conjunction with actions proposed in Section 2, Project Description. Information in this section is based on information obtained from the WSA for the Project (Dubose Design Group 2021) included in Appendix J of this EIR.

4.12.1 Existing Environmental Setting

Regional Setting

Water and Sewer Service

Groundwater underlying the Imperial Valley is generally of poor quality and unsuitable for domestic or irrigation purposes; thus, the main source of water for wholesalers is the Colorado River (IWF 2012).

In the unincorporated areas of the County, water and sewer services are generally limited to parcels within or immediately adjacent to established communities or incorporated cities. Each city and unincorporated community has its own water treatment facilities for treating and distributing water to the users of each jurisdiction. Ten communities within Imperial County receive water for domestic purposes from the IID: Calexico, Holtville, El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland, Seeley, and Heber (County 1997b).

In addition to the water being diverted to the Imperial Valley by the IID, five other water districts supply water to other areas in Imperial County outside the IID boundaries. These additional water districts are the Palo Verde Irrigation District, the Palo Verde County Water District, the Bard Water District, the Winterhaven Water District, and the Coachella Valley Water District. The East Mesa Unit and the West Mesa Unit are located within the IID boundaries; however, the East Mesa Unit relies on four groundwater wells that are approximately 600 feet deep, and the West Mesa Unit has water delivered from the Elder Lateral Canal. The communities of Ocotillo, Nomirage, and Yuha Estates rely on groundwater from the Ocotillo-Coyote Wells groundwater basin (County 1997b).

Outside established communities where urban services cannot be extended or an individual water well cannot be provided, water is available through a canal system for uses other than drinking and through commercial drinking water companies. Sewage is treated by individual septic tank systems. Larger developments may require State-approved sewer or water treatment systems or may have to connect to special districts (County 2013).

Colorado River Water Rights

The 2003 Quantification Settlement Agreement and Related Agreements (QSA) serve as the laws, regulations, and agreements granting California the most senior water rights along the Colorado River and specifying that IID has access to 3.1 million acre-feet (maf) of Colorado River water per year. Imperial Dam, located north of Yuma, Arizona, serves as a diversion structure for water deliveries throughout

southeastern California, Arizona, and Mexico. Water is transported to the IID water service area through the All American Canal (AAC) for use throughout the Imperial Valley.

Stormwater

The federal Clean Water Act provides the California RWQCBs with the authority and framework for regulating stormwater discharges under the NPDES Permitting Program. Cities and local jurisdictions that operate municipal stormwater systems must obtain NPDES permit coverage for discharges of municipal stormwater to waters of the United States. The State and RWQCBs implement multiple stormwater permitting programs to regulate stormwater entering local municipal systems, including Municipal Separate Storm Sewer System (MS4) Permits (SWRCB 2020).

Phase 1 MS4 permits regulate stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people or more) municipalities. The Statewide Phase II MS4 permit regulates small municipalities (population of less than 100,000 people). On April 30, 2003, the California SWRCB issued a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities (population less than 100,000). The Cities of Imperial and El Centro, Calexico, and Brawley and the County of Imperial are enrolled under the State Water Board General Order for Phase II MS4s (RWQCB 2021b).

Electricity and Natural Gas

Electricity is available for most areas of the County through IID, Southern California Edison, or San Diego Gas and Electric Company (SDG&E; County 2013). IID provides electricity to more than 150,000 customers in Imperial County as well as parts of Riverside and San Diego Counties. The service area covers approximately 6,471 square miles. IID's generating facilities and sources of power are varied and dispersed across the County. Renewable sources of energy generation include solar, hydroelectric, geothermal, and wind. More diverse sources include biomass and biowaste (IID 2021).

IID's transmission system consists primarily of 161-kilovolt (kV) and 92-kV transmission lines and lower-voltage distribution lines. IID also has two 230-kV transmission lines that allow for import/export of electrical power to its system in the County. SDG&E/IID operate a 500-kV transmission line that traverses the southern part of Imperial County and interconnects with the transmission system in Arizona. This 500-kV transmission line is the primary import line for electrical power to be wheeled into SDG&E's system to supply power to San Diego County and the City of San Diego. This line also provides import/export capacity to IID's service area (EDAW 2006).

Natural gas service within the County is provided by SoCalGas, with transmission lines following mainly along Highway 111, Interstate 8, Dogwood Road, and Barbara Worth Road. Transmission lines stretch from the Chocolate Mountains in the northern portion of the County to the Mexico border in the southern portion. High-pressure distribution lines branch off the transmission lines in all directions. The majority of high-pressure distribution lines are concentrated around the City of El Centro (SoCalGas 2021).

In 2019, Imperial County consumed a total of approximately 1,415.8 GWh of electricity and approximately 43.9 million therms of natural gas (CEC 2021a; 2021b). IID, specifically, consumed approximately 3,462.78 GWh over the course of 2019 (CEC 2021c).

Solid Waste

The County has eight permitted landfills: Calexico, Holtville, Hot Spa, Imperial, Niland, Ocotillo, Palo Verde, and Salton City (County 2021). In 2019, Imperial County disposed of approximately 135,092 tons of solid waste (CalRecycle 2019). The locations of those landfills are listed in Table 4.12-1 below.

Table 4.12-1: Imperial County Waste Disposal Sites

Name of Landfill	Address
Calexico	133 West Highway 98, Calexico, CA 92231 East of Hammers Road on Highway 98 Approximately 3 miles west of Calexico
Holtville	Whitlock Road north of Norrish Road
Hot Spa	10466 Spa Road, Niland, CA 92257 Spa Road west of Frink Road
Imperial	1705 West Worthington Road, Imperial, CA 92251 3 miles west of Forrester Road on Worthington Road
Niland	8450 Cuff Road, Niland, CA 92257 Cuff Road north of Beal Road
Ocotillo	1802 Shell Canyon Road, Ocotillo, CA 92259 Shell Canyon Road north of Ocotillo
Palo Verde	589 Stallard Road, Palo Verde, CA 92266 Stallard Road approximately 3 miles south of Palo Verde
Salton City	935 West Highway 86, Salton City, CA 92275 South of State Route 22 and west of Highway 86

Source: https://www.icphd.org/environmental-health/solid-waste/solid-waste-facilities/

Project Site

The Project intends to use or connect to the existing utility infrastructure at the neighboring HR1 plant to the greatest extent possible. The Project site was previously permitted for a geothermal/mineral recovery project Hudson Ranch I (2007) CUP #06-0047 & Hudson Ranch Power II Geothermal Plant/Simbol Calipatria II Plant Project (2012). Therefore, the HR1 facility was designed to meet many of the utility needs for a future mineral processing plant. Descriptions of the HR1 utilities are included below.

Water and Wastewater

HR1 currently receives raw water from the IID. Raw IID water is used directly for the HR1 facility's freshwater storage containment pond and fire suppression system. Potable water on site is supplied by treating IID raw water using the HR1 facility's water treatment plant. Sanitary waste generated by the HR1 facility is currently collected in a septic tank to initially digest the sewer effluent. Liquid waste is then treated using the onsite wastewater treatment plant. Sludge retained in the septic tank is pumped by licensed contractors as needed and transported to either the Calipatria or Holtville wastewater treatment plants.

Stormwater

Stormwater on the HR1 plant site is managed using an existing stormwater retention basin. Rain and storm drainage is collected in the stormwater retention pond on the east side of the facility. The drainage pond is designed for a 24-hour, 100-year storm event. Water accumulated in the stormwater detention pond is allowed to evaporate, seep into the ground, or be pumped into the aerated brine injection well. The collected stormwater runoff in the stormwater retention basin is sampled and analyzed for quality and compatibility before releasing the stormwater runoff from the stormwater retention basin.

Solid Waste

Non-hazardous waste and debris resulting from the HR1 site is currently disposed of using a locally licensed waste hauling service, Allied Waste, and is hauled to the Niland Solid Waste Facility. The Niland Solid Waste Facility is approximately 5.75 miles northeast of the HR1 site.

Hazardous wastes are managed and disposed of properly at a licensed Class I or II waste disposal facility authorized to accept the waste.

Electricity and Natural Gas

The HR1 facility is located within the IID's energy service area and is connected to the IID electrical transmission system (IID 2021). The HR1 facility does not receive natural gas service.

Telecommunications

The Applicant has indicated that the HR1 facility is currently connected to AT&T for phone service and Beamspeed for internet service.

4.12.2 Regulatory Setting

Federal

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. The Energy Policy Act of 2005 gave FERC additional responsibilities in this capacity. The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 and is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The USEPA oversees waste management regulation pursuant to Title 40 of the CFR. Under RCRA, however, states are authorized to carry out many of the functions of the federal law through their own hazardous waste programs and laws if they are at least as stringent (or more so) than the federal regulations. Thus, the California Department of Resources Recycling and Recovery (CalRecycle) manages the State of California's solid waste and hazardous materials programs pursuant to USEPA approval.

State

Senate Bill 610

SB 610 is an act that amended Section 21151.9 of the PRC, and sections 10631, 10656, 10910, 10911, 10912, and 10915 of the Water Code. SB 221 is an act that amended Section 11010 of the Business and Professions Code, while amending Section 65867.5 and adding Sections 66455.3 and 66473.7 to the Government Code. SB 610 was approved by the Governor and filed with the Secretary of State on October 9, 2001, and became effective January 1, 2002. SB 610 requires a lead agency to determine that a project (as defined in Water Code section 10912) subject to CEQA), to identify any public water system that may supply water for the project and to request the applicants to prepare a specified WSA.

Water Code section 10911(c) requires that the lead agency "determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses." Specifically, Water Code section 10910(c)(3) states that, "If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20 year projection, will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses."

With the introduction of SB 610, any project under the CEQA shall provide a WSA if the project meets the definition of 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 10912a and section 10912 (a)(5)(B), it was determined that the Project is deemed a project under Water Code section 10912, as it is considered an industrial water use project that is considered a processing plant in accordance with Water Code section 10912a (5).

Porter-Cologne Water Quality Act

The California Legislature enacted the Porter-Cologne Water Quality Control Act in 1969 to preserve, enhance, and restore the quality of the State's water resources. The SWRCB and nine RWQCBs were established by the Act as the primary state agencies charged with controlling water quality in California. The Porter-Cologne Water Quality Control Act establishes water quality policy, enforces surface water and groundwater quality standards, and regulates point and nonpoint source pollutants. The Act also authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and the control and use of recycled water.

State Water Resources Control Board

The SWRCB has dual authority to allocate and protect water. This two-fold responsibility enables the SWRCB to provide comprehensive protection for California's waters. Nine RWQCBs dispersed throughout California carry out the duties of the SWRCB. The RWQCBs develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters. The Project is within the jurisdiction of the Colorado River Basin (CRB) RWQCB, Region 7. The CRB RWQCB regulates the discharge of waste to surface waters (rivers, streams, lakes, wetlands, and the Pacific Ocean) as well as to storm drains, to the ground surface, and to groundwater.

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 CRB RWQCB 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. Water bodies that have beneficial uses that may be affected by construction activity and post-construction activity include the Imperial Valley Drains (includes the Wistaria Drain and Greeson Wash), New River, and the Salton Sea.

Assembly Bill 885 - California Onsite Wastewater Treatment Systems

Assembly Bill (AB) 885 was signed into law in September 2000. AB 855 requires the SWRCB to develop statewide regulations for the permitting and operation of onsite wastewater treatment systems, better known as septic systems. These regulations are developed through consultation with the Department of Health Services (DHS), California Conference of Directors of Environmental Health (CCDEH), California

Coastal Commission (CCC), counties, cities, and other interested parties. Individual disposal systems that use subsurface disposal are all included under AB 885.

National Pollution Discharge Elimination System General Industrial and Construction Permits

The NPDES General Industrial Permit requirements apply to the discharge of stormwater associated with industrial sites. The permit requires implementation of management measures that will achieve the performance standard of the best available technology economically achievable and best conventional pollutant control technology. Under the statute, operators of new facilities must implement industrial BMPs in the projects' SWPPP and perform monitoring of stormwater discharges and unauthorized non–stormwater discharges.

Construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre. Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of a NOI to comply with the General Construction Permit. The SWPPP includes a description of BMPs to minimize the discharge of pollutants from the sites during construction. Typical BMPs include temporary soil stabilization measures (e.g., mulching and seeding), storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or stormwater, and using filtering mechanisms at drop inlets to prevent contaminants from entering storm drains. Typical post-construction management practices include street sweeping and cleaning stormwater drain inlet structures. The NOI includes site-specific information and the certification of compliance with the terms of the General Construction Permit.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. CPUC is responsible for regulating electric utility rates, electric power procurement and generation, some electric infrastructure, ratepayer-funded energy efficiency programs, and other areas. The CPUC evaluates the necessity for additional power generation by the regulated utilities in California in both the long and short term, accomplished using public input, data provided by the utilities, the California Energy Commission, the California Independent System Operator (CAISO), and following the regulations of the Commission, the Public Utilities Code, and FERC. CPUC has primary ratemaking jurisdiction over the funding of distribution-related expenditures generally for power lines of 66 kV or less. While CPUC does not have ratemaking responsibility for transmission lines, CPUC does have a substantial role in permitting transmission and substation facilities. CPUC regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing. Additionally, CPUC regulates telecommunications and broadband operations and infrastructure in the state, being responsible for licensing, registration, and the processing of tariffs on local exchange carriers, competitive local carriers, and nondominant interexchange carriers. It is also responsible for registration of wireless service providers and franchising of video service providers, among other duties.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) was signed into law by the Governor of California on September 29, 1989. AB 939 requires each California city and county to divert 25 percent of its waste stream by 1995 and 50 percent by 2000 (PRC, Section 41780) and to manage waste disposal through the implementation of the Source Reduction and Recycling Element (SRRE). The SRRE was approved by CalRecycle (formerly the California Integrated Waste Management Board on November 17, 1993, and adopted in December 1993. Under the SRRE, counties are required to demonstrate how they intend to achieve the mandated diversion goals through the implementation of various programs. The County of Imperial agreed to implement the following programs to meet the required diversion goals:

1. Agriculture Plastic
2. Commercial Source and Recycling
3. Compost Operation
4. Construction and Demolition
5. Procurement Policy
6. School Recycling
7. Christmas Tree Diversion
8. County Waste Reduction Policy

CalRecycle

This State agency performs a variety of regulatory functions pursuant to CCR Title 27 and other rules. Among other things, CalRecycle sets minimum standards for the handling and disposal of solid waste designed to protect public health and safety, as well as the environment. It is also the lead agency for implementing the State of California's municipal solid waste program, deemed adequate by USEPA for compliance with RCRA.

Integrated Waste Management Act (AB 939)

The Integrated Waste Management Act (IWMA), introduced as AB 939, was passed by the State Legislature in 1989 to reduce dependence on landfills for the disposal of solid waste and to ensure an effective and coordinated system for the safe management of all solid waste generated within California. With its passage, solid waste management practices were redefined to require California's cities and counties to divert disposal of solid waste by 50 percent by the year 2000. It also required local governments to prepare and implement plans to improve waste resource management by integrating management principles that place importance on first reducing solid waste through source reduction, reuse, recycling, and composting before disposal at environmentally safe landfills or via transformation (e.g., regulated incineration of solid waste materials). These plans must also be updated every five years.

Construction and Demolition Waste Materials Diversion Requirements (SB 1374)

Construction and Demolition Waste Materials Diversion Requirements, passed in 2002, added Section 42912 to the California PRC. SB 1374 requires that jurisdictions include a summary of the progress made in diverting construction and demolition waste in their annual AB 939 report. The legislation also requires that CalRecycle adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition waste from landfills.

Local

Southern California Association of Governments

The SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized MPO for this region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with SCAQMD, Caltrans, and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, including the Regional Transportation Plan (RTP) and Sustainable Communities Strategies (SCS) component pursuant to State law.

Imperial Integrated Water Resources Management Plan

The Imperial 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. Approval by these three stakeholders meets the basic requirement of California Department of Water Resources (CDWR) for an IRWMP. Through the IRWMP process, IID presented options to the region's stakeholders, such as water storage and banking, recycling of municipal wastewater, and desalination of brackish water, in the event long-term water supply augmentation is needed.

Imperial Irrigation District

The IID is an irrigation district organized under the California Irrigation District Law, codified in Section 20500 et seq. of the California Water Code. Critical functions of IID include diversion and delivery of Colorado River water to the Imperial Valley, operation and maintenance of the drainage canals and facilities, including those in the Project area, and generation and distribution of electricity. Several policy documents govern IID operations and are summarized below:

- The Law of the River and historical Colorado River decisions, agreements and contracts
- The Quantification Settlement Agreement and Transfer Agreements
- The Definite Plan, now referred to as the Systems Conservation Plan, which defines the rigorous agricultural water conservation practices being implemented by growers and IID to meet the Quantification Settlement Agreement commitments
- The Equitable Distribution Plan, which defines how IID will prevent overruns and stay within the cap on the Colorado River water rights
- Existing IID standards and guidelines for evaluation of new development and defining IID's role as a responsible agency and wholesaler of water

IID has adopted an Interim Water Supply Policy (IWSP) for Non-Agricultural Projects during the development of the Imperial IWRMP, from which water supplies can be contracted to serve new developments within IID's water service area. For applications processed under the IWSP, applicants shall be required to pay a processing fee and, after IID board approval of the corresponding agreement, will be required to pay a reservation fee(s) and annual water supply development fees.

Imperial County Public Health Department, Division of Environmental Health

The Imperial County Public Health Department, Division of Environmental Health is responsible for issuance of sanitation permits for private onsite sewage disposal systems in the County. Coordination of site design for proposed projects must occur with the Public Health Department to obtain final permits.

Imperial County Land Use Ordinance, Division 10 Building, Grading, and Sewage Regulations

Chapter 13, Sanitation Permits, of the Imperial County Land Use Ordinance, Division 10 Building, Grading, and Sewage Regulations, regulates the construction, relocation, and alteration of sewage disposal systems in the unincorporated areas of Imperial County. Standards for such systems described in this chapter must be met for a permit to be issued by the County Public Health Department.

Countywide Integrated Waste Management Plan for Imperial County

All California counties are required to prepare and submit to CalRecycle a Countywide Integrated Waste Management Plan (CIWMP). The CIWMP is to include all SRREs, all Household Hazardous Waste Elements, a Countywide Siting Element, all Non-Disposal Facility Elements, all applicable regional SRREs, Household Hazardous Waste Elements, and an applicable Regional Siting Element (if regional agencies have been formed).

CalRecycle summarizes waste management problems specific to each county and provides an overview of actions that would be taken to achieve the SRRE implementation schedule (PRC Section 41780). Imperial County's CIWMP was approved by CalRecycle (formerly CIWMB) in May of 2000. The Executive Director of the CIWMB approved by Resolution 2008-91 the Five-Year Review Report of the Countywide Integrated Waste Management Plan for the County of Imperial on June 17, 2008.

Imperial County General Plan

The Land Use Element and the Conservation and Open Space Element of the General Plan contain goals, objectives, policies, and programs to ensure water resources in the County are preserved and coordination occurs among local agencies. The Imperial County General Plan does not contain any goals, objectives, policies, or programs pertaining to solid waste that are applicable to the Project. Table 4.12-2 provides a consistency analysis of the applicable Imperial County General Plan goals and objectives as they relate to the Project. While this 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 4.12-2: General Plan Consistency

General Plan Policies	Consistency with General Plan	Analysis
Land Use Element		
Public Facilities		
Goal 8 – Coordinate local land use planning activities among all local jurisdictions and state and federal agencies.	Consistent	The Project is being planned and designed in coordination with the County of Imperial as well as State and federal agencies as appropriate. Examples include but are not limited to the IID Water, IID Energy, Imperial County Planning and Development Services Department, Imperial County Public Works Department, California Department of Fish and Wildlife, and Imperial County Air Pollution Control District. Therefore, the Project is consistent with this goal.
Conservation and Open Space Element		
Preservation of Water Resources		
Objective 6.3 – Protect and improve water quality and quantity for all water bodies in Imperial County.	Consistent	The Project will require 56 acre-feet of water per year (AFY) for construction, representing 0.025% of the annual unallocated water supply. The Project requires 3,400 AFY for operations, which represents 14% of the unallocated supply. Thus, the Project's estimated water demand would not affect IID's ability to provide water to other users in IID's water service area.. The Project would protect water quality during construction through compliance with the NPDES General Construction Permit, SWPPP, and BMPs. The Project will be designed to include site design, source control, and treatment control BMPs. The use of source control, site design, and treatment BMPs would result in a decreased potential for stormwater pollution.
Objective 6.10 – Encourage water conservation and efficient water use among municipal and industrial water users, as well as reclamation and reuse of wastewater.	Consistent	As previously mentioned, the Project's water use represents 14% of the unallocated supply set aside in the IWSP for nonagricultural projects and approximately 14% of forecasted future nonagricultural water demands planned in the Imperial IRWMP through 2055. Wastewater in the form of spent process fluid will be reused on site through injection back into the injection wells to replenish the geothermal resource.

4.12.3 Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the County utilizes the State CEQA Guidelines Appendix G Guidelines. Appendix G states that a project may be deemed to have impacts to utilities and services systems if it would:

Threshold a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?**

Threshold b) **Have sufficient water supplies available to serve the project from existing and reasonably foreseeable future development during normal, dry and multiple dry years?**

Threshold c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Threshold d) **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?**

Threshold e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Please refer to **Section 6.1: Effects Found Not to Be Significant** for an evaluation of those topics that were determined to be less than significant or have no impact and do not require further analysis in the EIR**.**

4.12.4 Methodology

Dubose Design Group was retained by the County to prepare a WSA for the Project in April 2021 (Appendix J). The WSA evaluates water availability during a normal year, single-dry, and multiple-dry water years for the required 20-year period, plus an additional 10 years for a total of a 30-year water demand for the Project. The WSA also evaluates reasonably foreseeable planned future water demands to be served by the IID. Evaluations of potential wastewater, stormwater, electricity and natural gas usage, telecommunications, and solid waste impacts are based on information provided by the Applicant, as well as information from publicly available federal, State, and local government sources.

Regional Water Demand

The 2012 Imperial IRWMP addresses water supplies (Colorado River and groundwater), demand, baseline and forecasted through 2050, and IID water budget. The IRWMP also addresses projects, programs and policies, and funding alternatives. The IRMWP lists and details a set of capital projects that IID might pursue, including the amount of water that might result (AFY) and cost (dollars per acre-foot [$/AF]) if necessary. These also highlight potential capital improvement projects that could be implemented in the future.

Imperial Valley's historic nonagricultural water demand for 2015 and forecasted nonagricultural water demand for 2020 to 2055 are provided in Table 4.12-3 in five-year increments. Total water demand for nonagricultural uses is projected to be 198.4 kilo acre feet (kaf) in the year 2055. This is a forecasted increase in the use of nonagricultural water from 107.4 kaf for the period of 2015 to 2055. These values were modified from the Imperial IRWMP to reflect updated conditions from the IID Provisional Water Balance for calendar year 2015. Due to the recession in 2009 and other factors, nonagricultural growth projections have lessened since the 2012 Imperial IRWMP. Projections in Table 4.12-3 have been adjusted (reduced by 3 percent) to reflect IID 2015 delivery data.

Table 4.12-3: Nonagricultural Water Demand in IID Water Service Area, 2015-2055 (kaf per Year)

	2015	2020	2025	2030	2035	2040	2045	2050	2055
Municipal	30.0	33.9	36.8	39.8	41.5	46.3	51.7	57.8	61.9
Industrial	26.4	33.1	39.8	46.5	53.2	59.9	66.6	73.3	80.0
Other	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Feedlots/Dairies	17.8	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Envr Resources	8.3	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Recreation	7.4	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Service Pipes	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Total Non-Ag	**107.4**	**123.5**	**133.3**	**142.8**	**151.2**	**162.7**	**174.8**	**187.6**	**198.4**

Notes: 2015 nonagricultural water demands are from IID 2015 Provisional Water Balance rerun 03/28/2019 2020-2055 demands are modified from 2012 Imperial IRWMP Chapter 5, Table 5-22 p 5-50 based on IID 2015 Provisional Water Balance. Industrial Demand includes geothermal, but not solar, energy production.

In addition to agricultural and nonagricultural water demands, system operational demands must be included to account for operational discharge, main and lateral canal seepage; and for AAC seepage, river evaporation, and phreatophyte evapotranspiration from Imperial Dam to IID's measurement site at AAC Mesa Lateral 5. These system operation demands are shown in Table 4.12-4. IID measures system operational uses and at AAC Station 2900 just upstream of Mesa Lateral 5 Heading.

Table 4.12-4: IID System Operations Consumptive Use within IID Water Service Area and from AAC at Mesa Lateral 5 to Imperial Dam, 2019

System Operational Use	Kilo Acre Feet (kaf)
Delivery System Evaporation	24.6
Canal Seepage	91.7
Canal Spill	13.1
Lateral Spill	118.1
Seepage Interception	-39.8
Unaccounted Canal Water	30.9
Total System Operational Use, In valley	**238.6**
Imperial Dam to AAC @ Mesa Lat 5	29.2
LCWSP	-10
Total System Operational Use in 2019	**257.9**

Total system operational use for 2019 was 257.9 kaf, including 10 kaf of Lower Colorado Water Supply Project (LCWSP) input, 39.8 kaf of seepage interception input, and 30.9 kaf of unaccounted canal water input.

Table 4.12-5 shows historic 2015 nonagricultural water demand compared to delivery and forecasts the IID's demand and delivery to nonagricultural land uses through 2055. This data reflects the IID's ability to meet nonagricultural water demands through 2055.

Table 4.12-5: IID Historic and Forecasted Consumptive Use for Non-Agricultural Land Uses

	2015	2020	2025	2030	2035	2040	2045	2050	2055
Non-Ag Demand	107.4	123.5	133.3	142.8	151.2	162.7	174.8	187.6	198.4
Non-Ag Delivery	110.1	123.4	133.1	142.9	151.4	163.2	175.4	188.4	199.3

Notes:
2015 Provisional Water Balance rerun 06/28/2019
Non-Ag Delivery CI 15.0%, Ag Delivery CI 3.0%, QSA SS mitigation CI 15%

As shown above, IID forecasted nonagricultural demand has the potential to exceed delivery volumes during several time intervals through the projected lifespan for the Project. However, due to temporary land conversion for solar use and urban land expansion that will reduce agricultural acres in the future, a water savings of approximately 217,000 AFY will be generated into the future and for the lifetime of the Project.

Project Site

The Project site is located in the Imperial Valley Planning Area of the Colorado River Basin. The Colorado River Basin Region is divided into seven major planning areas on the basis of different economic and hydrologic characteristics. The Imperial Valley Planning Area is characterized as a closed basin; and, therefore, all runoff generated within the watershed discharges into the Salton Sea (RWQCB 2021b).

Imperial Valley relies on the Colorado River for its water, which IID transports, untreated, to delivery gates for agricultural, municipal, industrial (including geothermal and solar energy), environmental (managed marsh), recreational (lakes), and other nonagricultural uses. IID supplies the cities, communities, institutions, and Golden State Water Company (which includes all or portions of 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.

The Project site is located within IID's Imperial Unit and district boundary and as such is eligible to receive water service (IWF 2012). The Project is also located within the IID's energy service area (IID 2021). The Project operations would consume approximately 81,290 megawatt-hours (MWh) of electricity, 56 AFY of water for construction, and 3,400 AFY of water for operations, as disclosed by the Project Applicant. No natural gas usage would be required for the Project.

4.12.5 Project Impact Analysis

Threshold a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?**

The Project intends to use or connect to the HR1 plant's utility infrastructure to the greatest extent possible. Since the Project site was previously permitted for a geothermal/mineral recovery project through Hudson Ranch I (2007) Conditional Use Permit (CUP) #06-0047 and Hudson Ranch Power II Geothermal Plant/Simbol Calipatria II Plant Project (2012), the HR1 facility was designed to meet many of the utility needs for a future mineral processing plant. The Project will therefore require additional

connections from the HR1 facility only for water, wastewater, and electric power to the Project site and for increased usage.

Water

The Project's potable water requirements include washbasin water, eyewash equipment water, water for showers and toilets in the crews' quarters, and sink water in the sample laboratory. The HR1 potable water treatment plant was designed to accommodate sufficient use and reliability for both the HR1 and the Project facilities, anticipating a future mineral extraction plant. This system will be operated under one permit by HR1, and the Project will purchase water from HR1.

The Project would share the freshwater storage containment pond with HR1, which would be expanded to meet the requirements of the Project site and HR1. The fresh water storage pond currently located on the east side of the HR1 plant will continue to receive canal water from the IID "O" lateral canal north of the Project site. However, a backup delivery line will also be installed from the IID "N" lateral canal located about 0.25 mile south of the Project site. A 500,000-gallon aboveground water tank will be constructed to serve as the primary water supply for the joint fire suppression system for the HR1 and ATLiS sites. This 500,000-gallon tank will be a one-time fill from the IID unless a fire occurs on site.

Installation of water and fire infrastructure would be limited to onsite connections, and no offsite connections would need to be installed or upgraded. A more detailed discussion of water requirements can be found in Threshold b) below.

Wastewater

Sanitary waste generated by the Project would be collected in the HR1 septic tank to initially digest the sewer effluent, and liquid waste would be treated using the HR1 wastewater treatment plant. The HR1 sewer treatment plant has a capacity of 2,100 gallons per day and was designed to process 20 gallons per person per day. However, according to the HR1 Plant Manager, the current usage is operating at five gallons per person per day. The total combined staff of HR1 and the Project will be a maximum of 100 people, requiring at most 500 gallons of capacity per day. This would leave 1,600 gallons per day remaining to be processed by the onsite wastewater treatment plant. Additionally, the Calipatria and Holtville wastewater treatment plants would be able to process additional wastewater. The capacity of Calipatria Waste Water Treatment Plant is 1.7 million gallons per day (mgd), with a projected wastewater flow of 1.47 mgd by 2035 (Calipatria 2018). This leaves 0.23 mgd in remaining capacity for the Project in approximately 15 years, which is well-beyond the Project's requirements and expected to be sufficient for the Project's 30-year lifespan. The capacity of the Holtville Waste Water Treatment Plant is 0.87 mgd; and, although the projected wastewater flow for 2035 is 0.87 mgd, the Holtville plant would have sufficient capacity for the foreseeable future (Holtville 2017). If issues arise regarding capacity at the Holtville plant, the Project would favor the Calipatria plant. Wastewater in the form of processed spent fluid would be returned to the HR1 facility via a brine return pipeline and would be injected directly into the injection wells to replenish the geothermal resource in conformance with the CalGEM guidelines.

Stormwater

The Project would share the HR1 stormwater retention basin, which would be expanded to contain the combined stormwater storage requirements for both the Project and HR1 sites. The stormwater runoff will be contained on the HR1 site and will be managed using any single, or any combination, of the

following methods: (1) allowed to evaporate or percolate into the soil, (2) released for non-Project beneficial use onto the undeveloped portion of the Project parcel, and/or (3) pumped from the stormwater basin into the freshwater pond for onsite uses. The collected stormwater runoff in the basin will be sampled and analyzed for quality and compatibility prior to releasing or removing the runoff from the retention basin.

Electricity and Natural Gas

Electrical power required for the Project will be purchased from the IID, and a new power line will be constructed to the Project site from the current IID/HR1 substation located near the northeast corner of the HR1 property. Electrically driven equipment, including a power distribution unit, will be installed at the neighboring HR1 facility to deliver geothermal brine, steam/steam condensate, and non-condensable gas to the Project site. The power distribution unit would be provided power via a distribution line from the Project electrical building or the IID/HR1 substation. Project operations would consume approximately 81,290 MWh of electricity, which is approximately 6 percent of the County's total electricity usage in 2019 and approximately 2 percent of IID's total electricity usage in 2019 (CEC 2021a; 2021c).

Natural gas is not expected to be required or delivered to the Project site.

Telecommunications

Telecommunication services on site would likely be provided by AT&T for phone and by Beamspeed for internet, the same as the HR1 site. All utility infrastructure required for the Project would be built entirely within previously disturbed areas, particularly within the HR1 plant site, and would consist only of expanding currently existing utilities.

No new facilities would be constructed for the purpose of water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications. Therefore, no significant environmental effects are expected to result. Impacts would be less than significant.

Threshold b) **Have sufficient water supplies available to serve the project from existing and reasonably foreseeable future development during normal, dry and multiple dry years?**

The Project's WSA evaluates the required 20-year water demands per SB 610, plus an additional 10 years, for a 30-year water demand of the Project. The WSA evaluates reasonably foreseeable planned future water demands to be served by the IID to determine whether or not the IID water supply will be adequate to serve the Project in conjunction with other projects in the area. The IID's IWSP for Non-Agricultural Projects dedicates 25,000 AFY of IID's annual water supply to serve new projects. As of June 2020, 23,800 AFY remain available for new projects, ensuring reasonably sufficient supplies for new nonagricultural water users.

Additionally, the Project site has already been permitted in the past for a Geothermal/Mineral recovery project Hudson Ranch I (2007) CUP #06-0047 & Hudson Ranch Power II Geothermal Plant/Simbol Calipatria II Plant Project (2012). The HR1 facility has a water system available to meet potable water needs. The Project will require increased water service only for dust mitigation during construction, as well as processing, landscaping, fire suppression, and dust mitigation during operations. Project water uses are summarized in Table 4.12-6.

Table 4.12-6: Project Water Uses (AFY)

Water Use	Expected Years	Water Required
Construction	2 Years	56 AFY
Total for Water Construction		*112 AF*
Processing, Daily Plant Operations & Mitigation	30 Years	3,400 AFY
Operations		3,393 AFY
Landscaping		1 AFY
Fire Suppression		2 AFY
Dust Mitigation		4 AFY
Total Water Usage for Processing Daily Plant Operations & Mitigation		*102,000 AFY*

Approximately 56 AFY of water would be needed for fugitive dust control during Project site grading and construction activities, which are anticipated to last up to 2 years (Table 4.12-6). Approximately 3,400 AFY would be required for Project operations, lasting up to 30 years. The Project's total water demand is approximately 3,456 AFY, resulting in 102,112 AF total over the 30-year lifespan of the Project (Table 4.12-7).

Table 4.12-7: Project Water Summary

Water Use	Expected Years	Total AFY
Construction	2 years	56
Operations	1-30 Years	3,400.00
Total	*32 Years*	*102,112.00*

Table 4.12-8 shows the Project's water use amortized, calculated to define the Project's proportion of unallocated water supply set aside in the IWSP for nonagricultural projects and the Project's proportion of forecasted future nonagricultural water demands planned in the Imperial IRWMP through 2055.

Table 4.12-8: Amortized Project Water Summary

Project Water Use – Life of Project	Years	Total Years Combined*	IWSP	% of IWSP per Year**
56 AFY	2 Years	112 AF	23,800 AFY	0.025%
3,400 AFY	30 Years	102,000 AF	23,800 AF	14 %

Notes:
*(3,400 AFY x 30 Years)
**(3,400 AFY/23,800 AFY x 100)

Project construction represents 0.025 percent of the unallocated supply set aside in the IWSP for nonagricultural projects and approximately 0.025 percent of forecasted future nonagricultural water demands planned in the Imperial IRWMP through 2055. Project operations represent 14 percent of the unallocated supply set aside in the IWSP for nonagricultural projects and approximately 14 percent of forecasted future nonagricultural water demands planned in the Imperial IRWMP through 2055. The amount of water available and the stability of the IID water supply along with on-farm and system

efficiency conservation and other measures being undertaken by IID and its customers ensure that the Project's water needs will be met for the next 30 years.

When drought conditions exist within the IID water service area, as has been the case for the past decade or so, the water supply available to meet agricultural and nonagricultural water demands remains the same as normal year water supply because IID continues to rely on its entitlement for Colorado River water. Due to the priority of their water rights and other agreements, drought affecting Colorado River water supplies causes shortages for Arizona, Nevada, and Mexico, not California or IID. Therefore, the likelihood that IID will not receive its annual 3.1 million AF apportionment under the QSA obligations of Colorado River water is low due to the high priority of the IID entitlement relative to other Colorado River contractors (see Appendix J for further details on the IID's water rights). If such reductions were to come into effect within the life of the 30-year Project, a significant impact would occur. If such reductions do occur, Mitigation Measure (MM) UTIL-1 would be implemented, requiring the Applicant to work with IID to ensure any reduction in water availability during the life of the Project can be managed. Therefore with implementation of MM UTIL-1, impacts would remain less than significant.

Threshold c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

The Project would not introduce new sources of sanitary wastewater during construction, as construction workers would use the existing restrooms at the HR1 site. This wastewater would then be stored and processed by the HR1 septic tank and existing wastewater treatment plant on site, which was permitted and designed to meet water and wastewater capacities required for a future mineral processing plant like the Project.

The Project would contain new sources of wastewater for operations including washbasins, eyewash equipment, showers, toilets, and sinks in the sample laboratory. For these new wastewater sources, the Project would connect to and utilize the existing HR1 facility's septic tank to initially digest sewer effluent; and liquid waste would be pumped to the HR1 wastewater treatment plant. HR1's sewer treatment plant has a capacity of 2,100 gallons per day and was designed to process 20 gallons per person per day. However, according to the HR1 Plant Manager, the current usage is operating at five gallons per person per day. Wastewater typically represents about 75 percent of water usage. As previously mentioned, the Project would require 3,400 AFY of operational water which would represent 9.3 AF per day, or 6.9 AF per day of wastewater equating to approximately 6,160 gallons per day of wastewater. A majority of this water would be spent fluid that would be injected back into the geothermal wells in conformance with CalGEM guidelines. Spent fluid from the HR1 secondary clarifiers, which is brine from which heat energy has been removed, would be sent from HR1 to the Project's processing area via a brine delivery pipeline. Once the brine has been processed, it would be returned to the HR1 facility via a brine return pipeline and would be injected directly into the injection wells to replenish the geothermal resource.

However, some of this wastewater may require the use of the HR1 wastewater treatment processing plant. The total combined staff of HR1 and the Project will be a maximum of 100 employees, requiring at most 500 gallons per day of capacity. This would leave a remaining 1,600 gallons per day to be processed by HR1 which would be sufficient capacity. Additionally, if needed, the Project would have access to the Calipatria Waste Water Treatment Plant and Holtville Waste Water Treatment Plant both of which have sufficient capacity for the Project in the foreseeable future. The sludge retained in the HR1 septic tank will

continue to be pumped by licensed contractors as needed and transported to the Calipatria or Holtville wastewater treatment plants.

The wastewater treatment plant serving the Project has adequate capacity for the Project; thus, impacts are less than significant.

Threshold d) 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?

All nonhazardous and hazardous wastes generated during Project construction and operation would be handled and disposed of in accordance with applicable laws, ordinances, regulations, and standards. Nonhazardous solid waste would be disposed of using a locally licensed waste hauling service, Allied Waste. Wastes that exceed CCR toxicity standards would be required to be trucked out of state to Arizona. If Arizona toxicity standards are exceeded, hazardous wastes would be sent to Idaho or Nevada. A summary of the different waste types is provided below.

Nonhazardous Solid Waste

Nonhazardous solid waste from construction activities may include lumber, excess concrete, metal, glass, scrap, and empty nonhazardous containers. Management of these wastes will be the responsibility of the construction contractors and would involve management practices such as recycling when required, proper storage of waste and debris to prevent wind dispersion, and weekly pickup and disposal to Class III landfills.

The total amount of nonhazardous solid waste to be generated by Project construction activities has been estimated to be up to about 1,750 tons (2.5 pounds per square foot), which is similar to that generated for normal commercial construction. Although the number of tons per cubic yard for construction waste varies by material, CalRecycle estimates that there are 2,400 pounds in 1 cubic yard of construction debris (asphalt or concrete, loose) (CalRecycle 2021a). Therefore, because 1,750 tons is equivalent to 3.5 million pounds, 3.5 million pounds is roughly equivalent to 1,458 cubic yards (3.5 million / 2,400 = 1,458). Nonhazardous waste generated during operations is expected to be nominal, as it would result from limited office waste and general refuse from employees.

Hazardous Wastes Meeting California Disposal Standards

Hazardous solid wastes may be generated over the course of construction as a result of empty hazardous material containers, spill cleanup wastes, and welding. Any hazardous wastes generated during Project construction and operations would be collected in hazardous waste accumulation containers near the point of generation and moved daily to the contractor's 90-day hazardous waste storage area or operational hazardous material storage area located on the Project site. The accumulated waste would be subsequently delivered to an authorized Class I or Class II landfill authorized to accept the waste for proper disposal.

It is estimated that upwards of about 115,000 metric tons, or approximately 41,780 cubic yards (cy)[1], per year of iron-silica material in the form of filter cakes would be generated from Project operations at the full 7,200 gallons-per-minute geothermal brine flow rate. The iron-silica stream may be converted to a product stream(s) after Project operations begin; however, a portion of the iron-silica material would be managed as solid waste. The iron-silica filter cakes would be sampled and laboratory-tested to ensure that the material is below the CCR Section 66261.24(a)(2) STLC and TTLC regulatory levels and, if below, would be trucked off site and recycled for beneficial use. It is estimated that 90 percent of the filter cakes, approximately 37,602 cy of iron silica, would fall below California's thresholds for STLC and TTLC and could be disposed of within the state of California. Six trucks per day, 20 cy in size, would be required for offsite removal of waste generated during Project operations.

The solid wastes as discussed above, would be hauled to either the Allied Imperial Landfill, Niland Solid Waste Site, or the Salton City Landfill located in the County, which have an approximate combined remaining capacity of 13,859,609 cy, as shown in Table 4.12-9. The Allied Imperial Landfill has approximately 12,384,000 cy of remaining capacity and is expected to remain in operation through 2040 (CalRecycle 2021b). Niland Solid Waste Site has approximately 211,439 cy of remaining capacity and is estimated to remain in operation through 2046 (CalRecycle 2021c). The Salton City Landfill has a remaining capacity of 1,264,170 cy as of 2018 and is expected to have sufficient capacity for the foreseeable future (CalRecycle 2021d). The Project represents approximately 0.3 percent of the remaining capacity of the three landfills, which would be considered nominal; therefore, the County has ample landfill capacity to receive the solid waste generated by the Project.

Table 4.12-9: County of Imperial Landfills in Vicinity of Project Site

Name of Landfill	Location	Permitted Capacity	Remaining Capacity	Class	Approximate Distance from Project Site
Niland Solid Waste Site	8450 Cuff Road, Niland CA	318,673 cy	211,439 cy	III	4.5 miles northeast
Allied Imperial Landfill	104 East Robinson Road, Imperial, CA	19,514,700 cy	12,384,000 cy	III	23 miles south
Salton Sea Solid Waste Facility	935 West Highway 86, Salton City, CA	65,100,000 cy	1,264,170 cy	III	32 miles northwest

Source: CalRecycle 2021b-d

Hazardous Wastes Exceeding California Standards

As previously mentioned, it is estimated that 90 percent of filter cakes would fall below California thresholds for STLC and TTLC. The remaining 10 percent, or approximately 4,178 cy, would exceed these standards and would be trucked to the Copper Mountain Landfill located at 34853 County 12th Street in Wellton, Arizona, approximately 96 miles southeast of the Project site. This landfill has a design capacity for 2.5 million megagrams. Although the amount of remaining capacity is not information that has been made available, the amount of solid waste sent to this facility would be minimal. Although it is not

[1] 115,000 metric tons converted to kilograms (x 1,000) = 115,000,000 kilograms. Divide by dry bulk density of iron silicate (3.6 grams per cubic meter or 3,600 kilograms/cubic meter) (American Elements 2021) = 31,944 cubic meters, convert to cubic yards (multiply by 1.3079) = 41,780 cubic yards.

expected, if the filter cakes exceed Arizona's toxicity standards, the Applicant will arrange for hazardous materials to be trucked to Idaho or Nevada.

As mentioned in Section 2, Project Description, approximately every three years the Project facility will be shut down for about three weeks to complete a facility cleaning in alignment with the HR1 plant cleaning. This process would remove mineral scale from Project plant piping. The scale removed during this process has the potential to exceed STLC and TTLC standards for Arizona, in which case solid waste would be required to be trucked to Nevada. However, this is an extremely rare occurrence, and in the past 10 years only two truck loads have needed to be transported to Nevada. The implementation of the Proposed Project would not increase the amount of solid waste needing to go out of state.

Therefore, solid waste facilities have adequate permitted capacity for solid waste materials generated by the Project. Impacts would be less than significant.

Threshold e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As discussed above, solid waste would be generated during construction and operation. Some construction waste would be recycled prior to the remainder of the waste being disposed of at the local landfill. During Project operations, the iron-silica filter cake would be sampled and laboratory-tested to ensure that the material meets California standards for STLC and TTLC and then would be trucked off site and recycled for beneficial use. Any filter cake materials exceeding these standards would be delivered to a Class I landfill or a Class II landfill authorized to accept the waste for proper disposal. The Proposed Project would be operated in a manner that would be consistent with all source reduction and recycling goals set forth by the City to achieve compliance with the applicable regulatory plans consistent with the City's obligations under AB 939, including the Countywide Integrated Waste Management Plan for Imperial County, by appropriately distributing solid waste materials and recycling materials when feasible.

Disposal of solid/hazardous wastes generated during Project construction and operations would be in compliance with local federal, State, and County regulations and disposed of at authorized facilities. Therefore, a less than significant impact would occur.

4.12.6 Cumulative Impacts

Cumulative impacts are defined in CEQA as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). Stated in another way, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing relating impacts" (CEQA Guidelines Section 15130 [a][1]).

The cumulative setting and geographic scope for water service is the IID water service area, which includes 10 cities and approximately 500,000 acres of agricultural, municipal, and industrial use (IID 2008). The cumulative setting for electrical service is also IID's service area, which encompasses almost all of Imperial County. Only a small portion of the northeast corner of the County receives service from Southern California Edison. The geographic scope for the cumulative setting for solid waste is the service area of the solid waste contractor chosen by each individual CUP owner or operator. For conservative purposes, this solid waste service area is assumed in this analysis to encompass the entire County of Imperial. As

previously described in the Existing Setting, the County has permitted eight landfills and contracts with private collection companies for solid waste pickup.

Other proposed, approved, and reasonably foreseeable projects in the region are identified in Table 3.0-1 in Chapter 3.0, Environmental Setting. All of these projects are located within the cumulative setting for water, electricity, and solid waste. Water for Project construction and operations represents 14 percent of the unallocated supply set aside in the IWSP for nonagricultural projects and approximately 14 percent of forecasted future nonagricultural water demands planned in the Imperial IRWMP through 2055. The amount of water available and the stability of the IID water supply, along with on-farm and system efficiency conservation and other measures being undertaken by IID and its customers, ensure that the Project's water needs will be met for the next 30 years. Additionally, as previously mentioned, the Calipatria and Holtville wastewater treatment plants have sufficient available capacity to be able to support future and related projects. The electricity required for the Project would be approximately 81,290 MWh, which represents approximately 6 percent of the County's electricity usage and 2 percent of IID's electricity usage (CEC 2021a; 2021c).

Waste resulting from Project construction and operations is anticipated to result in approximately 0.3 percent of the Allied Imperial Landfill, Niland Solid Waste, and Salton Sea Solid Waste Facility's combined remaining capacity. Remaining capacity would be available for cumulative projects in the area.

Implementation of the Project, in combination with other proposed, approved, and reasonably foreseeable projects in the County of Imperial, would result in cumulative demand for water, electricity, and solid waste service and landfill capacity. However, similar to the Project, new development projects would be subject to County review to assure that the existing public utility facilities would be adequate to meet the demands of each project; and individual projects would be subject to federal, State, and local requirements regarding infrastructure improvements needed to meet respective future demands. Implementation of related projects and other anticipated growth in Imperial County would not combine with the Proposed Project to result in cumulatively considerable impacts on utility and service systems.

4.12.7 Mitigation Measures

In order to minimize potential impacts to future water resources for the Project, the following mitigation measure shall be implemented:

UTIL-1: If the IID does not receive its annual 3.1 maf water apportionment according to the QSA obligations of Colorado River water during the Project's 30-year lifespan, the Applicant shall work with IID to ensure any reduction in water availability can be managed by the Project.

4.12.8 Level of Significance After Mitigation

With the implementation of MM UTIL-1, the Project would ensure potential impacts related to utilities, specifically water availability, would remain less than significant.