

4.18 UTILITIES AND SERVICE SYSTEMS

4.18.1 INTRODUCTION

This section addresses potential impacts on utilities and service systems that could occur as a result of implementing the proposed project. Utilities and service systems discussed in this section include water service, wastewater service, and solid waste facilities. Water quality and stormwater are addressed in Section 4.10, Hydrology and Water Quality; safety hazards related to underground utilities are addressed in Section 4.9, Hazards and Hazardous Materials; and impacts on electricity energy resources are addressed in Section 4.12, Mineral and Energy Resources. Natural gas is not required for the proposed project; thus, it is not discussed in this DEIR.

4.18.2 ENVIRONMENTAL SETTING

Proposed project facilities would be constructed and operated at locations in the cities of Desert Hot Springs, Palm Desert, Rancho Mirage, La Quinta, and Indio, and the unincorporated community of Thermal. The study area for utilities and service systems includes the individual project facility sites and pipeline alignments, and the service systems for the potable water, wastewater, and solid waste facilities that serve the project sites.

4.18.2.1 Water Service

Within Coachella Valley there are six principal domestic water purveyors: Desert Water Agency (DWA), CVWD, Mission Springs Water District (MSWD), City of Coachella (Coachella Water Authority), City of Indio (Indio Water Authority), and Myoma Dunes Mutual Water Company. All of the proposed project facilities are located within the CVWD service area, as shown in Figure 3-3.

CVWD relies on a combination of local groundwater, Colorado River water, State Water Project (SWP) water, and recycled water to meet water demands. The Coachella Canal brings Colorado River water from the All-American Canal near the Mexico-U.S. border and traverses the southeastern margin of the Valley. The SWP water is obtained by exchange with Metropolitan Water District of Southern California, as CVWD does not have a direct connection to the SWP. The only direct water source for CVWD's urban potable water use is local groundwater. Although Colorado River and SWP water are used to replenish the groundwater basin, the potable water distribution system does not currently receive water directly from either imported water source.

4.18.2.2 Wastewater Service

Six agencies provide sewer service and wastewater treatment within the Coachella Valley: CVWD, DWA, the City of Coachella (Coachella Sanitary District), MSWD, the City of Palm Springs, and Valley Sanitary District (VSD). CVWD is the wastewater service provider for the two project facilities that would require sanitary sewer connections, the CRRF and the La Quinta WBA Water Treatment Facility. The ID8 WBA Water Treatment Facility does not require sanitary sewer connections. Table 4.18-1 provides a summary of the wastewater treatment plants (WWTP) in the study area. Some isolated farmhouses in the East Coachella Valley are served by septic tanks, as are portions of La Quinta, Rancho Mirage, Cathedral City

and scattered properties in the Coachella Valley. The tribal-owned casinos in the Valley are served by public sewer systems, while reservation communities are served by septic systems.

TABLE 4.18-1: SUMMARY OF WASTEWATER TREATMENT PLANTS IN STUDY AREA

Agency	Treatment Plant	Plant Capacity (mgd)	Recycled Water Production
<u>CVWD</u>			
Bombay Beach	WRP-1	0.15	No
North Shore	WRP-2	0.033	No
Thermal	WRP-4	7.0	No
Indio Hills	WRP-7	5.0	Yes
Palm Desert Country Club	WRP-9	0.40	Yes
City of Palm Desert	WRP-10	18 (existing), 22-24 (expansion)	Yes
City of Coachella (Coachella Sanitary District)	WWTP	4.5	No
City of Palm Springs	WWTP	10.9 (existing), 16.9 (expansion)	Yes
Desert Water Agency	WRP	5.0 (tertiary treatment for Palm Springs and secondary effluent)	Yes
Mission Springs Water District	WWTP WWTP	3.0 2.3	No
Valley Sanitary District	WWTP in Indio	11	No

Source: 2010 Coachella Valley Water Management Plan Update

Recycled water is produced at three of CVWD's six water reclamation plants and is primarily used for irrigation of golf courses and large landscaped areas. Recycled water use in the West Coachella Valley is approximately 11,700 acre-feet per year (AFY) (7,500 AFY by CVWD and 4,200 AFY by DWA). Recycled water use in the East Valley is approximately 700 AFY and is mainly for agricultural irrigation, duck clubs and fish farms. Of the six water reclamation plants operated by CVWD, three of these (WRP-7, WRP-9 and WRP-10) generate recycled water for irrigation of golf courses and large landscaped areas.

4.18.2.3 Solid Waste

Desert Valley Disposal Inc. provides solid waste and recycling collection services for the City of Desert Hot Springs. Burrtec Waste and Recycling Services provides solid waste and recycling collection services for the cities of Rancho Mirage, La Quinta, Indio, Palm Desert and the unincorporated community of Thermal. Solid waste that is collected for these communities is directed to the Badlands Sanitary Landfill in Moreno Valley, a Class III landfill operated by the Riverside County Waste Management Department (RCWMD). The Badlands Sanitary Landfill has a permitted capacity of 33,560,993 cubic yards and a maximum disposal capacity of 4,000 tons per day. The remaining capacity is approximately 14,730,025 cubic yards. The landfill solid waste permit lists an estimated closure date of 2016. The landfill accepts a variety of materials including construction and demolition materials and agricultural ash (CalRecycle 2015).

The RCWMD also operates the Mecca II Landfill, located in the project area in the unincorporated community of Mecca. The Mecca II Landfill has a permitted capacity of 452,182 cubic yards and a

maximum disposal capacity of 400 tons per day. The remaining capacity is approximately 6,371 cubic yards. The landfill solid waste permit lists an estimated closure date of 2098. The landfill accepts a variety of materials including construction and demolition materials and agricultural (CalRecycle 2015). Riverside County Lamb Canyon Landfill and EnergySolutions' Clive, Utah Landfill are located outside of the project area but are landfills that accept the types of waste that would be produced by the CRRF treatment process (see Section 4.9 Hazards and Hazardous Materials, for discussion of waste streams that would be generated by the CRRF). The Riverside County Lamb Canyon Landfill has a permitted capacity of 33,041,000 cubic yards and a maximum disposal capacity of 5,000 tons per day. The remaining capacity is approximately 18,955,000 cubic yards. The landfill solid waste permit lists an estimated closure date of 2021. The landfill accepts a variety of materials including construction and demolition materials and non-RCRA hazardous waste (CalRecycle 2015). The EnergySolutions' Clive, Utah Landfill has a capacity that varies depending on the waste received. Waste accepted by this facility includes Class A Low-Level Radioactive Waste (LLRW), Class A Mixed LLRW (i.e., radioactive and hazardous), PCB radioactive, and other various forms and types of radioactive wastes. The landfill permit identifies an estimated closure (based on capacity) date of 2026 (Utah Department of Environmental Quality 2016). However, the current disposal capacity is estimated to be 30 years with the currently approved design criteria (Baskett).

4.18.3 REGULATORY FRAMEWORK

4.18.3.1 Federal

No federal regulations relative to utilities and service systems would be applicable to the proposed project.

4.18.3.2 State

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code [PRC], Division 30), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50% of wastes by the year 2000 (PRC Section 41780). The California Department of Resources, Recycling, and Recovery determines compliance with this mandate to divert generated waste (which includes both disposed and diverted waste).

4.18.3.3 Regional and Local

Riverside County Integrated Waste Management Plan

In compliance with AB 939, Riverside County adopted an Integrated Waste Management Plan (CIWMP) in 1996 to divert a minimum of 25% solid waste landfill by 1995 and 50% by the year 2000. The CIWMP does not specifically address the reduction of construction and demolition debris or operational waste as related to the project, but provides guidelines for managing waste within Goal 1, and associated policy as described below:

- **Goal 1.** Develop a coordinated integrated waste management system to meet the needs of the jurisdictions within Riverside County.

Policy. Promote an integrated waste management system which emphasizes source reduction as its first priority, recycling and composting as secondary policies and environmentally safe landfill disposal and transformation when recycling is not possible.

City of Desert Hot Springs Municipal Code

The City of Desert Hot Springs Municipal Code, Chapter 8, Recycling and Diversion of Waste from Construction and Demolition, identifies salvage, diversion, and reporting requirements for waste disposal. The code contains salvage requirements to recover the maximum feasible amount of salvageable designated recyclable and reusable materials prior to demolition. The code also requires a 50% diversion rate for construction and demolition debris from commercial and residential buildings.

City of Rancho Mirage Municipal Code

The City of Rancho Mirage Municipal Code, Chapter 7, Recycling and Diversion of Waste from Construction and Demolition was adopted in compliance with AB 939, the Integrated Waste Management Act. The code contains salvage requirements to recover the maximum feasible amount of salvageable designated recyclable and reusable materials prior to demolition. Additionally, the code provides guidance on reporting, proper on-site practices, and preparation of a construction and demolition plan.

City of Palm Desert General Plan

The City of Palm Desert General Plan includes goals to reduce the generation of solid waste, to slow the filling of local and regional landfills and expand recycling programs that divert valuable resources from the waste stream and returning these materials to productive use. Additionally, the General Plan requires and encourages the recycling of mineral-based construction materials, including asphalt, concrete, gypsum and similar materials, as well as the facilities to assure their efficient recycling.

City of Indio Construction and Demolition (C&D) Debris Recycling Program

The City of Indio operates a Construction and Demolition Debris Recycling Program, codified in Ordinance 1501. This Ordinance required that certain construction and demolition projects achieve waste diversion rates of up to 50%. The Ordinance requires that a C&D Recycling Plan be submitted and approved by the City before a construction permit is issued.

4.18.4 IMPACTS AND MITIGATION MEASURES

4.18.4.1 Significance Criteria

Based on Appendix G of the State CEQA Guidelines, a project would have a significant impact relating to utilities and service systems if it would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- e. 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.
- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- g. Comply with federal, state, and local statutes and regulations related to solid waste.

4.18.4.2 Approach to Analysis

The focus of this analysis is on water, wastewater and solid waste services, and the potential for the project to affect these services. Criterion c above is addressed in Section 4.10 Hydrology and Water Quality.

The impact on utilities and service systems would be considered significant if new or expanded facilities would be required beyond those included in the proposed project, the construction of which could result in an environmental impact. The solid waste analysis focuses on potential impacts related to landfill capacity resulting from the disposal of construction and operational waste, as well as the ability of local jurisdictions to comply with federal and State solid waste goals and regulations.

Areas of No Project Impact

The analysis of impacts on utilities and service systems typically evaluates whether existing utilities and service systems are adequate to serve a proposed project, or whether they require expansion or new construction to accommodate the proposed project and, if so, whether construction of the new or expanded utilities and/or service systems could have an adverse impact on the environment. The project differs from typical development projects, because the project is a utility project (water treatment) that is designed to address a regulatory water quality standard. Due to the nature of the project, there would be no impacts related to two of the above-listed significance criteria. These significance criteria are not discussed further for the following reasons:

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The proposed project would not require the construction of new or expansion of existing wastewater treatment facilities. CVWD is the wastewater treatment provider for the two project facilities that would require sanitary sewer connection, the CRRF and the La Quinta WBA Water Treatment Facility. CVWD has determined that its existing facilities would be capable of serving these project facilities and would not require an expansion or construction of new wastewater treatment facilities. Therefore, no impacts would occur from the project under this significance criterion, and it is not discussed further.

- e. 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.

CVWD is the wastewater treatment provider for the two project facilities that would require wastewater service, the CRRF and the La Quinta WBA Water Treatment Facility. CVWD has determined that it has adequate capacity to serve the sanitary and treated brine wastewater flows from these facilities. Therefore, no impacts would occur from the project under this significance criterion, and it is not discussed further.

4.18.4.3 Construction Impacts and Mitigation Measures

Impact UT-1: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's construction solid waste disposal needs, and would not result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste. (Less than Significant)

As described in Section 4.18.3, the jurisdictions where CVWD sites are located have local regulations and goals pertaining to the disposal of solid waste. AB 939 (as modified by subsequent legislation) requires California cities and counties to implement programs to reduce, recycle, and compost at least 50% of waste.

Project construction would result in the generation of waste materials from all of the project sites, including construction debris and excavated soil. Materials excavated during facility construction and pipeline installation could be used as backfill around the facilities. Remaining soil and construction waste materials would be hauled off site for recycling or disposal. In addition, landfills serving the project area have sufficient permitted capacity to accommodate the project's solid waste disposal needs during construction. Therefore, the proposed project would comply with federal, state, and local statutes and regulations related to solid waste, and this impact would be less than significant.

4.18.4.4 Operation Impacts and Mitigation Measures

Impact UT-2: Sufficient water supplies would be available to serve the project from existing entitlements and resources, and no new or expanded entitlements would be needed during operation. (Less than Significant)

No new water supply or connections would be required at the SBA and WBA well sites. These sites would continue to pump raw water onsite with little change in their pumping regimes.

The WBA Water Treatment Facilities and the CRRF would require new potable water service connections and supply for worker facilities and for treatment processes. WBA Water Treatment Facilities would require potable water for worker facilities (e.g., toilets, sinks, drinking fountain, etc.). Potable water demand for these uses at the WBA Water Treatment Facilities would be approximately 1,300 gallons per year for each WBA treatment site. The CRRF would require approximately 94,900 gallons per year for these uses. Therefore, the project

would use a combined total of 97,500 gallons of potable water per year for operations at these three treatment facilities.

Start-up of the WBA treatment process equipment would require approximately 1.7 million gallons of water at the ID8 WBA Water Treatment Facility and 1.2 million gallons of water at the La Quinta WBA Water Treatment Facility. Following initial start-up, water would be continually recycled onsite and minimal additional water following start-up would be required. Start-up of the CRRF would require 75,000 gallons of water to fill the process tanks. This water would be continually recycled internally and used in the regeneration process; the CRRF would require minimal additional process water following start-up.

The project's water demands would be supplied by CVWD, and the District has the capability to supply these demands from its existing water supply sources. Therefore, because the project would have sufficient water supplies for all of the project water demands, impacts related to water use would be less than significant.

Impact UT-3: Discharge of treated brine from the CRRF to WRP-4 would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (Less than Significant)

As discussed above, CVWD operates its wastewater treatment plants pursuant to permits issued by the Colorado River Basin RWQCB. CVWD's permit for WRP-4 (Colorado River RWQCB 2012) establishes effluent limitations and discharge specifications for its discharge to the Coachella Valley Stormwater Channel (CVSC). As described in Section 3.4.3.2, one option for disposal of the treated brine, rinse water, and washdown water (called mixed waste water) from the CRRF would be to combine and dispose this wastewater to the WRP-4 facility. If the crystallizer method is used for brine treatment, the purge or rinse water from this process would be mixed with the distillate and also discharged to the WRP-4 facility or disposed offsite. These liquid brine wastes have the potential to affect the quality of CVWD's discharge from WRP-4 to the CVSC. To ensure that the CRRF discharges would not result in exceedances of CVWD's WRP-4 permit requirements, the CRRF would be operated in accordance with CVWD's sanitation regulations (CVWD 2016) to protect the sanitation system operation and maintain permit compliance. Compliance with these regulations would ensure this impact would be less than significant.

Impact UT-4: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's operational solid waste disposal needs, and would not result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste. (Less than Significant)

The project would generate waste from three sources: 1) disposal of resin from the WBA treatment facilities; 2) disposal of liquid and solid waste from the CRRF's regeneration process; and 3) disposal of municipal solid waste from operations of the CRRF and WBA treatment facilities. SBA and WBA well sites do not require solid waste disposal, and the resin in treatment vessels at SBA sites is regenerated and transferred between the SBA sites and the CRRF.

The WBA ion exchange resin will be manufactured by a resin vendor, and then delivered to and stored at the WBA Water Treatment Facility sites. WBA resin is not regenerated and would be

disposed of once every two years. The spent resin is classified as non-RCRA hazardous low level radioactive waste (LLRW) due to total chromium concentrations exceeding the California Total Threshold Limit. Spent WBA resin would be transported to EnergySolutions' Clive, Utah landfill for disposal. As noted in Section 4.18.2.3, adequate capacity exists in this landfill to accommodate this type of waste stream from the project.

As discussed Chapter 3 Project Description, Section 3.4.3.1, the CRRF process would create several waste streams that can either be recycled internally for reuse (without additional treatment before reuse), or would require treatment for reuse and/or final disposal. The waste streams would result in both liquid and solid wastes that need disposal. For liquid disposal, the waste could either be sent to WRP-4 for further treatment and disposal; this option is addressed in Impact UT-3 above. Another option for liquid brine disposal is to haul it offsite to an approved facility. Under this option, CVWD would use its existing brine hauler for the arsenic ion exchange treatment plants (K-VAC) to perform this disposal function.

Approximately 3,900 pounds per day of non-hazardous iron and chromium solids would be produced from the regeneration and brine treatment process. These solids would be transported to EnergySolutions' Clive, Utah landfill. The spent brine crystallization process would generate approximately 3.5 tons of salt cake per regeneration, and would be hauled to Class II landfill disposal every five operation days, or 39 times a year. Crystallization waste would be disposed of at the Riverside County Lamb Canyon Landfill. Waste disposal of the salt cake from the evaporation process would occur every three days, or 65 times a year, with 5.6 tons of salt cake disposed at a time. Evaporation waste would also be disposed of at the Riverside County Lamb Canyon Landfill. As noted in Section 4.18.2.3, adequate capacity exists in these landfills to accommodate these types of waste streams from the project.

The municipal solid waste from operations at the WBA Water Treatment Facilities and CRRF would be sent to local landfills that accept such waste. As noted in Section 4.18.2.3, adequate capacity exists in these landfills to accommodate waste streams from the project.

For the reasons stated above, adequate landfill capacity exists for the solid waste disposal needs of the project, and the project would not result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste. This impact is less than significant and no mitigation is required.

4.18.5 SIGNIFICANCE AFTER MITIGATION

No mitigation measures are required.

4.18.6 CUMULATIVE IMPACTS

The geographic scope for the analysis of cumulative impacts on utilities and service systems consists of each proposed treatment facility (including the construction area, and associated facility pipelines), the immediate vicinity around each of these sites, and the service areas of CVWD as the regional water and wastewater service/utility provider. For compliance with solid waste statutes and regulations, the geographic scope encompasses Riverside County, including incorporated cities where project facilities are proposed. For landfill capacity, the geographic scope includes Riverside County, within which

construction-related waste and operational waste could be sent. For compliance with solid waste statutes and regulations, the geographic area encompasses Riverside County. The projection approach was used. Based on review of the cumulative projects obtained from local jurisdictions where project facilities are located, no cumulative projects have been identified which would contribute to a cumulative impact as a result of the proposed project.

Since CVWD maintains and operates all water and wastewater services where proposed project facilities are located and has identified that adequate capacity exists to serve these project sites along with current and future projects, the project's contribution to a cumulative impact related to these services would not be cumulatively considerable. The project's impacts related to landfill capacity and compliance with solid waste statutes and regulations during construction and operation would be less than significant. Since capacity within the landfills exists for both construction and operation of the project, the project's contribution to a cumulative impact would not be cumulatively considerable

4.18.7 REFERENCES

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