# 5.12. Utilities and Service Systems

This section addresses potential utility and service system impacts that may result from construction, operation, closure and post-closure maintenance of the Desert Valley Company Monofill (DVCM) Expansion Project, Cell 4. The following discussion addresses the existing utility and service systems in the vicinity of the Project site and identifies the potential physical environmental impacts that would result from provision of services to the proposed Project.

Information used in preparing this section is based on information obtained from service providers as well as the Water Supply Assessment (Appendix N) prepared for the Project by EMKO Environmental, Inc, July 10, 2019.

**Scoping Issues Addressed**

During the scoping period for the Project, a public scoping meeting was conducted, and written comments were received from public agencies. No comments related to utilities and service systems were received.

**Issues Scoped Out**

The Imperial County Planning and Development Services Department determined in the Initial Study (IS), located in Appendix A-1, that the following environmental issue areas resulted in no impact were scoped out of requiring further review in this draft EIR. Please refer to Appendix A-1 of this DEIR for a copy of the NOP/IS and additional information regarding this issue.

- 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. Wastewater treatment services for the existing DVCM are provided by an on-site septic system and leach field. This same infrastructure would be used for the proposed Project.
- Require or result in the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities. The DVCM has existing infrastructure, including septic, electrical power and telecommunication facilities that would be used by the proposed Project. No new construction would be required for these utilities/service systems, and no impacts would result.

Therefore, these issue areas will not be discussed further.

## 5.12.1. Environmental Setting

The Imperial Valley area is located within the south-central part of Imperial County and is bound by Mexico on the south, the Algodones Sand Hills on the east, the Salton Sea on the north and San Diego County on the northwest, and the alluvial fans bordering the Coyote Mountains and the Yuha

Desert to the southwest. The IID supplies water and power to most users in the Imperial Valley. Operations are divided between a water division responsible for distribution and collection of water, and a power division responsible for generation and distribution of electrical power. The majority of the public water supply is imported from the Colorado River. Natural gas service in the area is provided by the Southern California Gas Company.

The DVCM has existing infrastructure, including water, wastewater, electrical power and telecommunication facilities. The existing water well would continue to be used for the site personnel. A new water well would be drilled for use in construction. The existing on-site septic tank/leach field would continue to be used for disposal of sanitary waste generated by site personnel. An Imperial Irrigation District electrical transmission line and its maintenance road cross Sections 27, 28 and 34, running diagonally from northwest to southeast less than a mile from the Project site.

***Groundwater***

The DVC Monofill Facility is located within the Ocotillo-Clark Valley Groundwater Basin. The basin is bounded by the Santa Rosa Mountains to the north and northeast, Coyote Creek and Superstition Mountain faults to the west and south, and the Salton Sea and surface drainage divides to the east. The total surface area is approximately 223,000 acres (348 square miles), while the estimated groundwater storage capacity of the Ocotillo Valley part of the groundwater basin is 5,800,000 acre-feet (EKMO, 2019b; Appendix P).

Clark Valley drains toward Clark Dry Lake, to the northeast of Borrego Springs (se. The eastern part of the groundwater basin drains toward the Salton Sea. The basin is an alluvial filled valley of stream, alluvial fan, lake and aeolian deposits. Recharge occurs due to runoff from the mountains along the north and west sides of the basin and is estimated to be 1,200 acre-feet per year for the Clark Valley part of the basin and 1,100 acre-feet per year for the Ocotillo Valley part of the basin The Ocotillo-Clark Valley Groundwater Basin has not been adjudicated.

Two aquifers are present within the Ocotillo Valley area of the groundwater basin. Northwest of San Felipe Creek, shallow groundwater is encountered at depths ranging from 40 feet to 90 feet below ground surface, with depths generally increasing toward the west. The depth to groundwater in the lower aquifer is approximately 100 feet deeper than that in the shallow aquifer. Thus, in the area west of San Felipe Creek, the shallow groundwater zone is generally unconfined and perched, while the lower aquifer is confined. Groundwater from the shallow zone may discharge at springs along Fish Creek and San Felipe Creek, suggesting that groundwater flow is toward the east-southeast in the western area of the Ocotillo Valley part of the groundwater basin.

At the Project site, shallow groundwater is present at depths ranging from 50 feet to 60 feet below ground surface. The shallow groundwater flows toward the northeast with a hydraulic gradient of approximately 0.0164 ft/ft and at a velocity of approximately 3.86 feet per year (DVC, 2019). While the lower aquifer is not encountered until a depth of approximately 490 feet below ground surface,

the static water level is approximately 44 feet below ground surface, indicating that the lower aquifer is under confined conditions.

### *Existing Supply Well and Historic Water Volumes Pumped*

In 2005, DVC installed a new water supply well for operation of Cell 3. The well was drilled to a total depth of 605 feet and completed with 5-inch Schedule 80 PVC casing. A three (3)- horsepower, three-phase submersible pump was installed at a depth of 461 feet. The pump provides up to 38 gallons per minute of groundwater from the deeper aquifer zone. Two 5,000-gallon above ground water tanks are used to store pumped groundwater before use onsite.

The water well attachment to CUP 05-0020 allows up to 8.5 acre-feet of groundwater per year to be produced from the supply well. Over the past decade, the maximum annual water use reported by DVC was 8.02 AFY in 2010. Since 2012, the peak annual water use has been 5.57 AFY while the minimum annual water use has been 3.58 AFY. The median water use over the past seven years has been 5.45 AFY.

### *Project Water Demand*

Project water demand would include water needed for dust control and construction (e.g., soil compaction) during installation of Cell 4, closure of existing Cell 3, and for subsequent operation of Cell 4. Current Cell 3 and future Cell 4 operational water demand is for dust control and makeup water for soil stabilization polymers applied to the filter cake in the active cell, as required in the CUP. Water would be supplied from the existing groundwater well and a new well, as described in Section 4.4.3 of this EIR. Potable water for on-site personnel and sanitary use at the office/administration building would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank separate from the pumped groundwater. Water use for dust control and operation of Cell 3 since 2012 has ranged from 3.58 to 5.57 AFY, with a median value over that period of 5.45 acre-feet/ year, as discussed in **Section 4.4.3** of this EIR. The historic maximum use for Cell 3 was 8.02 AFY, in 2010. To provide a conservative estimate, the Water Supply Assessment, assumed that water use for dust control and operation of Cells 4A and 4B could be twice the median value of water used over the past seven (7) years, or about 11 AFY (5.45 AFY x 2 ≈ 11 AFY).

For construction of Cell 4A water would be necessary for moisture conditioning of fill material for the liner and for dust control. Over an approximate 12-month period, it is estimated that the total water demand to construct Cell 4A may range from 25 million to 32 million gallons, or approximately 75 to 100 acre-feet. The average daily water demand is estimated to range from 135,000 to 155,000 gallons per day (gpd), while the maximum daily water demand is estimated to range from 155,000 to 180,000 gallons per day. The average daily water demands are equivalent to pumping rates of about 90 gallons per minute (gpm) to 105 gpm. The maximum daily water demands are equivalent to pumping rates of about 105 gpm to 125 gpm. These pumping rates assume pumping

would occur 24 hours per day and not just during working hours. Water use for construction, operation and closure of Cell 4B was assumed to be similar in quantity and duration to that of Cell 4A.

For the closure of Cell 3, water would be necessary for moisture conditioning of the cap material and for dust control. Cell closure is estimated to require up to 6- months to complete. Over that period, it is estimated that 30 to 40 acre-feet of water would be required. The average daily water demand is estimated to range from 85,000 to 110,000 gallons per day, while the maximum daily water demand is estimated to range from 95,000 to 120,000 gallons per day. The average daily water demands are equivalent to pumping rates of about 60 gpm to 75 gpm. The maximum daily water demands are equivalent to pumping rates of about 65 gpm to 85 gpm. These pumping rates assume pumping would occur 24 hours per day and not just during working hours.

Closure of Cell 3 would not occur until after Cell 4A has been constructed and becomes available for use. Thus, the water demand to construct Cell 4A and to close Cell 3 would not occur simultaneously.

According to the American Water Works Association, water use in a commercial setting for toilets and faucets using water-efficient fixtures) is approximately 20 gallons per worker per day. Eight (8) persons are employed at the project site. Therefore, the anticipated sanitary water demand is anticipated to be 160 gallons per day for 365 days per year, which is about 0.18 acre-feet/year.

Based on the above information, the total water demand for the project will be 75 to 100 acre-feet during the year that Cell 4A is constructed and 30 to 40 acre-feet during the six-month period while Cell 3 is being closed. The on-going operational water use for dust control and cell operation will be up to 11 acre-feet/year, while the on-going potable water use will continue to be 0.12 acre-feet/year. Based on these values, the maximum annual water use would be up to 111.12 acre-feet/year during the year that Cell 4A is constructed. The on-going long-term water demand, once cell construction and closure construction are completed, will be up to 11.12 acre-feet/year.

## 5.12.2. Regulatory Setting

### *Water Supply State Department of Water Resources*

Major responsibilities of the California Department of Water Resources include preparing and updating the California Water Plan to guide development and management of the state's water resources and planning, and designing, constructing, operating, and maintaining the State Water Resources Development System. In addition, the Department of Water Resources cooperates with local agencies on water resources investigations, supports watershed and river restoration programs, encourages water conservation, explores conjunctive use of ground and surface water, facilitates voluntary water transfers, and, when needed, operates a state drought water bank.

### *Senate Bill 610, 221 and 1262*

Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001) amends Sections 10910 through 10915 of the Water Code by requiring preparation of a WSA for development projects subject to CEQA and other criteria, as discussed below. SB 610 also amends Section 10631 of the Water Code, which relates to Urban Water Management Plans (UWMPs). The WSA process under SB 610 is designed to rely on the information typically contained in UWMPs, where available. On September 24, 2016, SB 1262 further amended Section 10910 of the Water Code to require additional information related to adjacent public water systems and the status of the groundwater basin. These amendments provide additional consistency with the Sustainable Groundwater Management Act of 2014.

SB 610, SB 221, and SB 1262 are companion measures that seek to promote more collaborative planning between local water suppliers and cities and counties. These statutes require detailed information regarding water availability to be provided to city and county decision-makers prior to approval of specified large development projects. They also require this detailed information to be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects.

The first steps in the water supply assessment (WSA) process are to determine whether SB 610 applies to the proposed Project. If so, then documentation of available water supplies, anticipated Project demand, and the sufficiency of supplies must be conducted. The WSA confirms that SB 610 applies because the proposed Project would be an industrial development occupying more than 40 acres of land. Since groundwater would be a source of supply for the Project, an assessment of groundwater conditions is also required, in accordance with Section 10910 (f) of the California Water Code.

## Local

### *Groundwater Management Ordinance*

In 1998, the County adopted, and in 2015 amended, a comprehensive Groundwater Management Ordinance to preserve and manage groundwater resources within the County. The Groundwater Ordinance, codified as Division 22 of Title 9 of the Imperial County Code, is implemented by the Planning Commission acting upon the direction of the Board of Supervisors. The Groundwater Ordinance provides the County with various regulatory tools that are designed to avoid or minimize the impact of existing and proposed groundwater extraction activities on groundwater resources and other users, such as overdraft or excessive drawdown.

The Groundwater Ordinance requires that existing extraction facilities be permitted and registered with the County. The existing groundwater well at the DVC Monofill Facility is permitted and

regulated by an attachment to CUP 05-0020, which establishes site-specific conditions for the onsite well.

### *County of Imperial General Plan*

The Imperial County General Plan provides goals, objectives, policies, and programs regarding the preservation and use of water. **Table 5.12-1** provides a consistency analysis of the applicable Imperial County General Plan goals and objectives as they relate to the proposed project. While the EIR analyzes the project's consistency with the General Plan pursuant to CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 5.12-1 CONSISTENCY WITH APPLICABLE GENERAL PLAN UTILITY GOALS AND POLICIES**

| General Plan Policies | Consistency | Analysis |
|---|---|---|
| **Conservation and Open Space Element (COSE)** | | |
| • COSE Goals 6: The County will conserve, protect, and enhance water resources in the County. COSE Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations. COSE Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs. | Yes | The proposed Project will comply with the General Stormwater Construction Permit and the Industrial Discharge permit to ensure that water runoff from the site would not pollute surface or groundwater resources |
| **Water Element (WE)** | | |
| • WE Goal 1: The County will secure the provision of safe and healthful sources and supplies of domestic water adequate to assure the implementation of the County General Plan and the long-term continued availability of this essential resource.<br>• WE COSE Objective 1.1 The efficient and cost-effective utilization of local and imported water resources through the development and implementation of urban use patterns.<br>• Coordinated Water Management Policy: Encourage and provide inter-agency and inter-jurisdictional coordination and cooperation for the management and wise use of water resources for contact and noncontact recreation, groundwater recharge, hydroelectric energy production, and wildlife habitat as well as for domestic and irrigation use. | Yes | The WSA determined that there would be sufficient water available to meet Project's demands during normal and dry years. |

Source: County of Imperial, 1997; County of Imperial, 2016.

## 5.12.3. Analysis of Project Effects and Significance Determination

### *Guidelines for Determination of Significance*

A project would be considered to have a significant impact if it would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
3. 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?
4. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

### *Impact Analysis*

**Impact 5.12-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?**

Site Preparation and Construction

The DVCM has existing infrastructure, including wastewater, electrical power and telecommunication facilities that would be used by the proposed Project. No new or relocated wastewater, electrical power or telecommunication facilities would be required during site preparation and construction, and no impacts would result. However,

A new groundwater well would be installed for use during construction of Cell 4A and 4B as well as during closure and capping of Cell 3. Construction of the groundwater well could cause significant impacts to air quality, biological resources, cultural/tribal resources, paleontological resources and water quality. These impacts would be reduced to below a level of significance with the implementation of mitigation measures detailed in Sections 5.1, 5.2, 5.3, 5.4 and 5.7 of this EIR. No additional mitigation would be required.

Site Operations

Existing wastewater, electrical power and telecommunication facilities would be used during the operation of Cells 4A and 4B. Drinking water for on-site personnel and sanitary use at the office/administration building would continue to be provided by a water delivery service and stored in an existing aboveground water storage tank.

To maintain operational integrity, a series of diversion berms would be extended and/or constructed around the south and western perimeter of Cell 4 to divert stormwater runoff from multiple existing ephemeral surface water features around the Project site. The surface water flow would be routed around the landfill facilities and allowed to rejoin the existing surface waters downstream. A 50-foot buffer would also be established along the outer edge of Cell 4 and a new leachate pond would be constructed along the eastern edge of Cell 4B. Construction of these features could cause significant impacts to air quality, biological resources, cultural/tribal resources, paleontological resources and water quality. These impacts would be reduced to below a level of significance with the implementation of mitigation measures detailed in Sections 5.1, 5.2, 5.3, 5.4 and 5.7 of this EIR.

During the operation of Cells 4A and 4B, water would be needed for dust control, and for mixing the acrylic polymer stabilization/sealant applied to the monofill working surface. Operational water would be obtained from the new groundwater well installed during construction of Cell 4A. No additional disturbance would occur, and no mitigation would be required.

Site Closure and Post-Closure Maintenance

Site closure and post-closure maintenance would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage facilities. No additional disturbance would occur, and no mitigation would be required.

**Impact 5.12-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Project water demand would include water for dust control (e.g., soil during construction compaction), operation and closure of Cell 4 and Cell 4B.

Site Preparation and Construction

Non-potable water for the existing monofill is provided via an existing on-site water well. A new water well would be installed for use during construction, operation, closure and post-closure maintenance of Cell 4A and Cell 4B. The Project shall obtain a Conditional Use Permit and an extraction permit for the new well proposed for use during construction of Cell 4A and Cell 4B, in compliance with the County's Groundwater Ordinance.

According to the Water Supply Assessment prepared for the Project sufficient water would be available for the Project during single dry-year and multiple dry-year periods over the next 20 years and beyond (EMKO, 2019b). The maximum annual water use would be up to 111.12 acre-feet/year during the year that Cell 4A or Cell 4B is constructed and the on-going long-term water demand, once cell construction and closure construction are completed, will be up to 11.12 acre-feet/year.

The long-term sustainable supply of groundwater in the basin is in the range of 800 acre-feet per year. As noted above, the maximum single-year water demand for the Project of 111.12 acre-feet

per year during Cell 4A or Cell 4B construction and the ongoing water demand of 11.12 acre-feet per year are both well below the long-term sustainable supply of 800 acre-feet per year. Thus, there is more than adequate groundwater to supply the Project water needs during normal, single dry, and multiple dry year periods. Water supply impacts would not be significant, and no mitigation would be required.

**Impact 5.12-3: Would the project 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?**

Wastewater treatment for the existing DVCM is provided by an on-site septic system and leach field. This same infrastructure would be used for the proposed Project. No impacts would occur, and no mitigation would be required.

**Impact 5.12-4: Would the project 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?**

Solid waste generation would be minor for the construction, operation and closure of the Project. Solid waste would be disposed of using a locally-licensed waste hauling service. It is anticipated that solid waste would be hauled to the landfill nearest the Project site. The Salton City Solid Waste Site (13-AA-0011) is located at 935 W. Highway 86 Salton City, CA 92275. As of September 2018, this landfill had approximately 1,264,170 cubic yards of remaining capacity and was estimated to remain in operation through 2038 (CalRecycle, 2019b.). The County has sufficient landfill capacity to receive the minor amount of solid waste generated by construction and operation of the Project. Also, because construction and operation the proposed Project would generate solid waste, the Project must comply with state and local requirements for waste reduction and recycling. A less than significant impact would occur. No mitigation would be required.

**Impact 5.12-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

The Applicant will continue to comply with federal, state and local statutes related to solid waste. No impacts would occur. No mitigation would be required.

### 5.12.4. Mitigation Measures

The proposed Project would not result in any significant public utility or service system impacts. No mitigation would be required.

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