Water Supply Assessment
and
Water Supply Verification

for the Proposed

Palm Springs Fulfillment Center

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October 2023

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1 Summary and Requirements

The environmental review of the Palm Springs Fulfillment Center (Project) is being prepared in compliance with the California Environmental Quality Act (CEQA) process. The City of Palm Springs is the Lead Agency for the planning and environmental review of the proposed Project. The City has identified the Mission Springs Water District (MSWD) as the Public Water System (PWS) that will supply water for the proposed Project, and has requested that MSWD assist in preparing a Water Supply Assessment (WSA) as part of the environmental review for the Project.

The Project is located in the western portion of the Coachella Valley within the City of Palm Springs, Riverside County. The Project proposes to develop 39.54 acres of vacant land to include 16.70 acres of industrial building area, 15.39 acres of parking, access roads, and hardscape, approximately 3 acres of right of way dedication, and 4.38 acres of landscaping, open space, and retention areas.

This WSA determined that the total projected water demand for the Project is 118.37 AFY, or 2.99 acre-feet per acre. This WSA demonstrates that sufficient water supplies exist, or will exist based on current water planning assumptions, to meet the projected demands of the Project, in addition to current and future projected water demands within MSWD's service area in normal, single-dry, and multiple-dry years over a 20-year projection. This WSA will be reviewed every five years, or in the event that the water planning assumptions have changed, until the Project begins construction to ensure it remains accurate and no significant changes to either the Project or available water supply has occurred. Consistent with the provisions of SB 610, neither this WSA nor its approval shall be construed to create a right or entitlement to water service or any specific level of water service, and shall not impose, expand, or limit any duty concerning the obligation of MSWD to provide certain service to its existing customers or to any future potential customers.

This WSA does not constitute an agreement to provide water service to the Project, and does not entitle the Project, Project Applicant, or any other person or entity to any right, priority or allocation in any supply, capacity, or facility. To receive water service, the Project will be subject to an agreement with MSWD, together with any and all applicable fees, charges, plans and specifications, conditions, and any and all other applicable MSWD requirements in place and as amended from time to time. Nor does anything in this WSA prevent or otherwise interfere with MSWD's discretionary authority to declare a water shortage emergency in accordance with the Water Code.

1.1 Regulatory Requirements

This WSA provides an assessment of the availability of sufficient water supplies during normal, single-dry, and multiple-dry years over a 20-year projection to meet the projected demands of the Project, in addition to existing and planned future water demands of MSWD, as required by Senate Bill (SB) 610 and SB 1262. This WSA also includes identification of existing water supply entitlements, water rights, water service contracts, or agreements relevant to the identified

water supply for the Project and quantities of water received in prior years pursuant to those entitlements, rights, contracts, and agreements.

This WSA has been prepared in compliance with the requirements under SB 610 and SB 1262 by MSA Consulting in consultation with MSWD and the City. This WSA does not relieve the Project from complying with all applicable state, county, city, and local ordinances or regulations, including any landscape ordinance and indoor water use performance standards provided in the California Water Code (CWC). This WSA will be reviewed every five years, or in the event that the water planning assumptions have changed, until the Project begins construction to ensure it remains accurate and no significant changes to either the Project or available water supply has occurred. The Project applicant shall notify MSWD when construction begins.

1.1.1 Senate Bill 610

On January 1, 2002, Senate Bill 610 (SB 610) was enacted and codified in CWC Section 10910 et seq., requiring the preparation of a Water Supply Assessment (WSA) for certain new development projects. As stated in SB 610, the purpose of a WSA is to determine whether the PWS's "total projected water supplies available 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 PWS's existing and planned future uses, including agricultural and manufacturing uses."

CWC Section 10912 defines a "project" as any of the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- 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 space;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- 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 (about 250 acre-feet per year).

The intent of SB 610 is to improve the link between information on water supply availability and certain land-use decisions made by cities and counties.

1.1.2 Senate Bill 1262

On January 1, 2017, Senate Bill 1262 (SB 1262) was enacted and amended CWC Section 10910, requiring that information regarding the Sustainable Groundwater Management Act (SGMA) be included in a WSA if the water supply for a proposed project includes groundwater from a basin that is not adjudicated and was designated medium- or high-priority by the California Department of Water Resources (DWR).

1.2 Water Management Planning Documents

MSWD prepared long-term planning documents to protect future water use and manage the water supplies within its service area. These planning documents can be used for compliance with SB 610 and SB 1262 and are discussed in further detail in the following sections.

1.2.1 Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMPA) was established by Assembly Bill 797 (AB 797) on September 21, 1983, and passage of this law recognized that water is a limited resource, and that efficient water use, and conservation would be actively pursued throughout the State. The UWMPA requires that municipal water suppliers providing either directly or indirectly to more than 3,000 customers or supplying more the 3,000 acre-feet per year (AFY), prepare and adopt an Urban Water Management Plan (UWMP) every five years which defines their current and future water use, source of supply, source reliability, and existing conservation measures.

1.2.1.1 Coachella Valley Water District Urban Water Management Plan

The six urban water suppliers in the Coachella Valley (MSWD, Coachella Water Authority, Desert Water Agency (DWA), Indio Water Authority (IWA), Coachella Valley Water District (CVWD), and Myoma Dunes Mutual Water Company) collaboratively prepared the 2020 Coachella Valley Regional UWMP, including regional and individual agency content and other necessary elements as set forth in DWR's 2020 UWMP Guidebook. The 2020 Coachella Valley Regional UWMP was submitted to DWR on July 1, 2021.

1.2.2 Sustainable Groundwater Management Act

In September 2014, Governor Brown signed three bills into law: Assembly Bill 1739, Senate Bill 1319, and Senate Bill 1168, which became collectively known as the Sustainable Groundwater Management Act (SGMA), creating a framework for sustainable, local groundwater management for the first time in California history. DWR evaluated and prioritized the 515 groundwater basins identified in Bulletin 118, and 94 of these groundwater basins were designated as high- or medium-priority basins, as of December 2019, requiring them to be sustainably managed within 20 years. SGMA required local authorities to form local Groundwater Sustainability Agencies (GSAs) by June 30, 2017, to evaluate conditions in their local groundwater basins and adopt locally-based Groundwater Sustainability Plans (GSPs), or Alternatives to a GSP (Alternative Plans), tailored to their regional economic and environmental needs.

As defined by DWR, the subbasins of the Coachella Valley Groundwater Basin are the Indio, Mission Creek, San Gorgonio Pass, and Desert Hot Springs Subbasins. MSWD, CVWD, and DWA are collectively the Mission Creek Subbasin Management Committee (Management Committee) working collaboratively to implement the SGMA in the Mission Creek Subbasin. The Mission Creek Subbasin has been designated medium-priority by DWR and is subject to the requirements of SGMA. The Project is located within the Mission Creek Subbasin, which has been designated as a medium priority groundwater basin by DWR under SGMA.

1.2.2.1 Alternative Plan for the Mission Creek Subbasin

In 2004, MSWD, DWA, and CVWD reached an agreement and created the Management Committee as discussed above. The Management Committee jointly prepared the 2013 Mission Creek-Garnet Hill Subbasin Water Management Plan (2013 MC-GH WMP). On December 29, 2016, MSWD, DWA, and CVWD collaboratively submitted the 2013 MC-GH WMP as an Alternative Plan for the Mission Creek Subbasin, with an associated Bridge Document and supporting documents, to DWR for review and evaluation. On July 17, 2019, DWR determined that the Alternative Plan for the Mission Creek Subbasin satisfies the objectives of SGMA and notified the Management Committee that the Alternative Plan was approved, and that they would be required to submit an assessment and update of the Alternative Plan pursuant to SGMA by January 1, 2022, and every five years thereafter. The 2022 Alternative Plan Update for the Mission Creek Subbasin was submitted to DWR on December 30, 2021.

On February 1, 2018, DWR notified all GSAs who submitted Alternative Plans that they would be required to submit annual reports pursuant to SGMA by April 1, 2018, and every year thereafter. MSWD, DWA, and CVWD have collaboratively prepared and submitted the Mission Creek Subbasin Annual Reports for Water Years 2016-2017 through 2021-2022.

1.2.3 Groundwater Replenishment

State Water Code (SWC) 31630-31639 provides CVWD with the authority to levy and collect water replenishment assessments to implement groundwater replenishment programs (GRPs) within its jurisdictional boundary. Groundwater replenishment is necessary to mitigate overdraft of the groundwater basin and associated undesirable results. The jurisdictional areas that benefit from the GRPs, and where CVWD levies replenishment assessments on groundwater production, are termed Areas of Benefit (AOBs). There are three AOBs within CVWD's boundary: the Mission Creek Subbasin AOB, the West Whitewater River Subbasin AOB, and the East Whitewater River Subbasin AOB. The GRP for the West Whitewater River Subbasin AOB was formed in 1976, the GRP for the Mission Creek Subbasin AOB was formed in 2003, and the GRP for the East Whitewater River Subbasin AOB was formed in 2004. The Project is located within the Mission Creek Subbasin AOB.

2 Public Water System

The City is the Lead Agency for the planning and environmental review of the proposed Palm Springs Fulfillment Center (Project). The City has identified the MSWD as the Public Water System

(PWS) that will supply water for the proposed Project, and has requested that MSWD assist in preparing a Water Supply Assessment (WSA) as part of the environmental review for the Project.

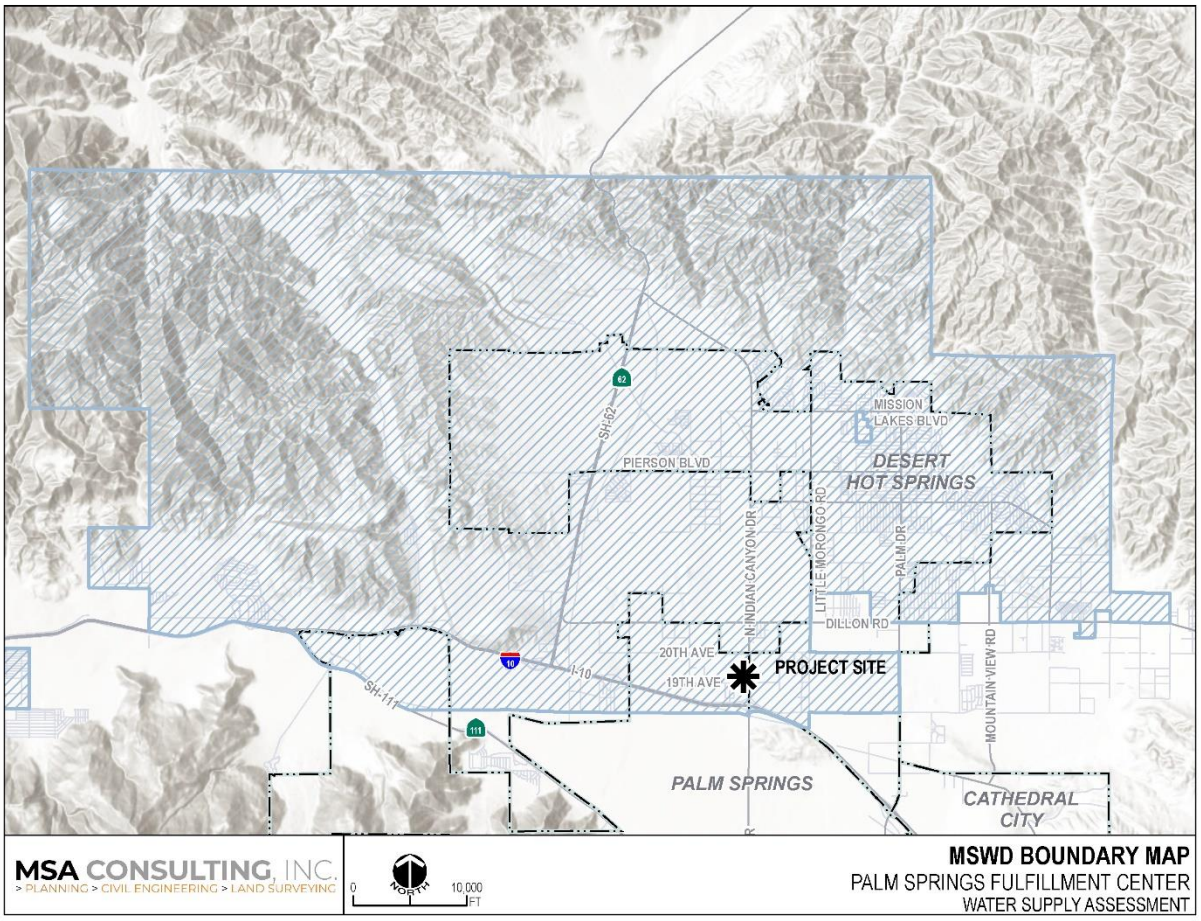
2.1 Mission Springs Water District (MSWD)

MSWD is a public water and wastewater agency organized under the County Water District Law, through the California Water Code. MSWD began as a mutual water company in the late 1940s. By 1953, it had evolved into an incorporated entity, the Desert Hot Springs County Water District. That name was changed to Mission Springs Water District in 1987. MSWD is governed by a five-member board, elected from five separate divisions, for a four-year term.

MSWD provides water services to more than 13,500 retail water customers through three independent production and distribution systems; and provides wastewater service to more than 9,200 customers through two independent wastewater collection and treatment systems.

MSWD's service area consists of 135 square miles, including the City of Desert Hot Springs, a portion of the City of Palm Springs, and ten smaller communities in Riverside County, including North Palm Springs, West Palm Springs Village and Palm Springs Crest as shown in **Figure 2-1**.

Figure 2-1: Mission Springs Water District Boundary



The 2020 Regional UMWP projected that population in MSWD's urban water service area would increase as shown in **Table 2-1**.

Table 2-1: Current and Projected Population for MSWD's Service Area

Population Served	2020	2025	2030	2035	2040	2045
	38,962	49,081	54,414	59,747	66,064	72,380

Source: 2020 Coachella Valley Regional Urban Water Management Plan

2.2 Coachella Valley Hydrology

The bulk of natural groundwater replenishment comes from runoff from the adjacent mountains. The climate in the Coachella Valley is characterized by low humidity, high summer temperatures, and mild dry winters. Average annual precipitation varies from 3 to 6 inches of rain on the Coachella Valley floor to more than 30 inches in the surrounding mountains. Most of the precipitation occurs between December and February, except for summer thundershowers. Prevailing winds in the area are usually gentle, but occasionally increase to velocities as high as 30 miles per hour or more. Mid-summer temperatures commonly exceed 100 degrees Fahrenheit (°F), frequently reach 110 °F, and periodically reach or exceed 120 °F, and the average winter temperature is approximately 60 °F as shown in **Table 2-2** and **Table 2-3**.

Table 2-2: Monthly Average Climate Data for Palm Springs

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Max (°F)[1]	71	73	80	86	94	104	108	107	102	90	78	69	89
Min (°F)[1]	47	49	54	59	65	73	80	79	74	64	53	46	62
Rain (in)[1]	0.95	0.92	0.36	0.10	0.02	0.00	0.25	0.14	0.20	0.20	0.26	0.70	3.80
ETo (in)[2]	2.5	3.4	5.6	7.1	8.3	8.7	8.1	7.5	6.2	4.7	2.9	2.2	67.2

Source: 2020 Coachella Valley Regional Urban Water Management Plan

[1] National Weather Service Forecast, Station Palm Springs Airport, 1998-2020

[2] CIMIS Station 218 – Thermal South, 2010-2020

Table 2-3: Monthly Average Climate Data for Thermal

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Max (°F) [1]	71	74	81	87	95	103	107	106	101	91	79	69	89
Min (°F) [1]	39	43	49	55	63	69	76	75	68	57	45	38	56
Rain (in)[1]	0.64	0.61	0.34	0.08	0.01	0.01	0.13	0.12	0.32	0.19	0.17	0.34	2.96
ETo (in) [2]	2.7	3.9	6.4	8.0	9.3	9.3	9.6	9.1	7.1	5.3	3.2	2.4	70.2

Source: 2020 Coachella Valley Regional Urban Water Management Plan

[1] National Weather Service Forecast, Station Desert Resorts Regional Airport, 1990-2020

[2] CIMIS Station 218 – Thermal South, 2010-2020

3 Groundwater

Groundwater is the principal source of potable supply in the Coachella Valley. MSWD currently receives 100 percent of its water supply from groundwater production and does not purchase imported water from a water wholesaler. However, CVWD and DWA are remediating the overdraft condition of the groundwater in the Upper Coachella Valley by replenishment with

Colorado River and State Water Project (SWP) Exchange water from Metropolitan Water District of Southern California (MWD). CVWD has the legal authority to manage the groundwater basin under the County Water District Law (California Water Code section 30000, et seq.) and as a Groundwater Sustainability Agency (GSA) under the Sustainable Groundwater Management Act (SGMA).

3.1 Coachella Valley Groundwater Basin

The Coachella Valley Groundwater Basin is bounded on the north and east by the San Bernardino and Little San Bernardino Mountains, on the south and west by the Santa Rosa and San Jacinto Mountains, and on the south by the Salton Sea. At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana Drainage Area.

The southern boundary is formed primarily by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea running between the Santa Rosa Mountains and Mortmar. Between the Salton Sea and Travertine Rock, at the base of the Santa Rosa Mountains, the southern boundary crosses the Riverside County Line into Imperial and San Diego Counties.

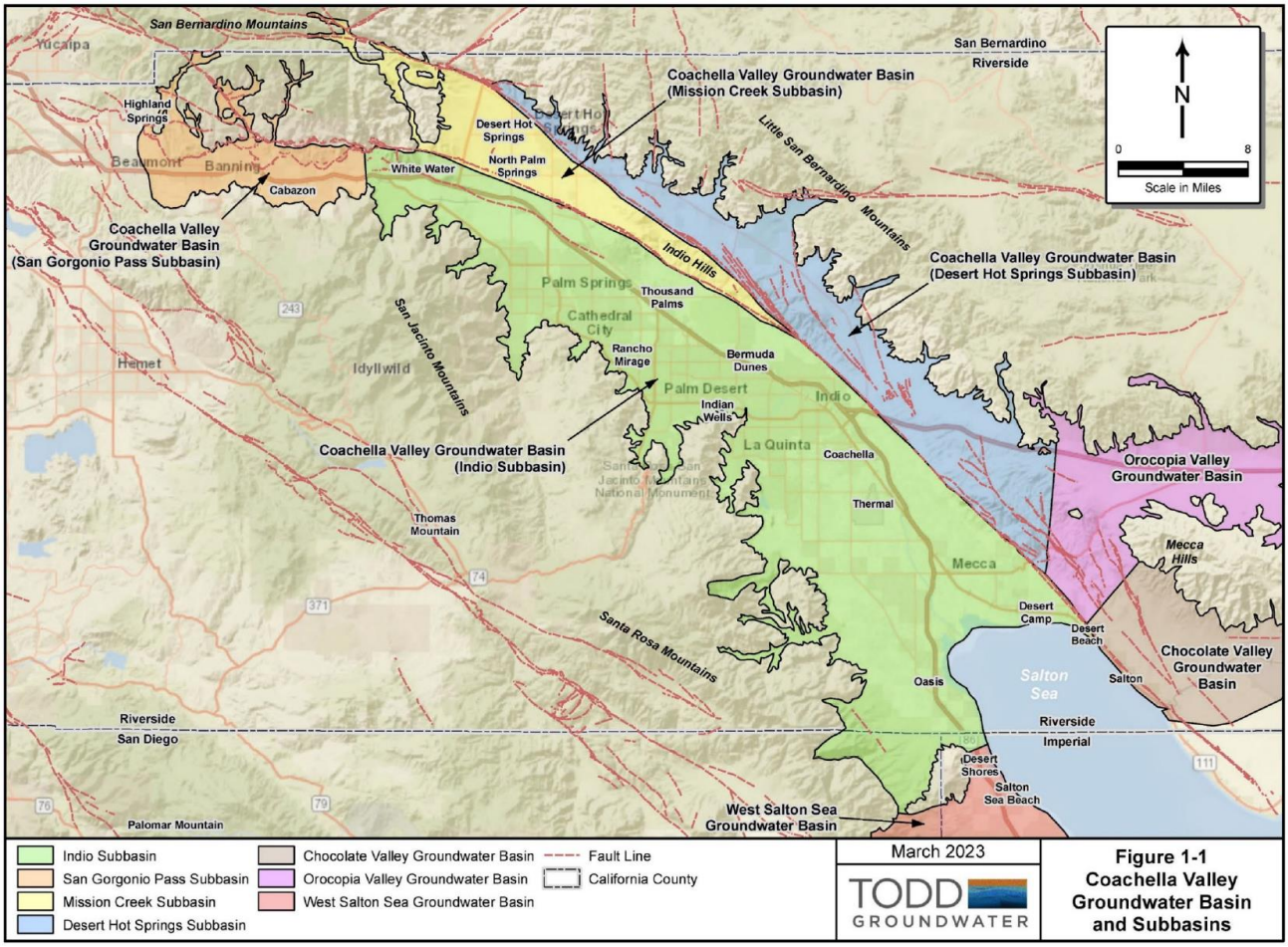
Although there is interflow of groundwater throughout the Coachella Valley Groundwater Basin, fault barriers, constrictions in the basin profile, and areas of low permeability limit and control movement of groundwater. Based on these factors, the Coachella Valley Groundwater Basin has been divided into subbasins and subareas as described by DWR in 1964 and 2003, and by the United States Geological Survey (USGS) in 1974.

3.1.1 Coachella Valley Groundwater Basin – Subbasins

As shown on **Figure 3-1,** the subbasins of the Coachella Valley Groundwater Basin are the Indio, Mission Creek, San Gorgonio Pass, and Desert Hot Springs Subbasins. The subbasins are defined without regard to water quantity or quality. They delineate areas underlain by formations which readily yield stored groundwater through water wells and offer natural reservoirs for the regulation of water supplies.

The boundaries between subbasins within the Coachella Valley Groundwater Basin are generally defined by faults that impede the lateral movement of groundwater. Minor subareas have also been delineated based on one or more of the following geologic or hydrologic characteristics: types of water-bearing formations, water quality, areas of confined groundwater, forebay areas, groundwater divides, and surface drainage divides.

Figure 3-1: Coachella Valley Groundwater Basin and Subbasins



Source: Indio Subbasin Annual Report for Water Year 2021-2022

The following is a list of the subbasins in the Coachella Valley Groundwater Basin as designated by DWR in Bulletin 118:

- Indio Subbasin (Subbasin 7-21.01)
- Mission Creek Subbasin (Subbasin 7-21.02)
- San Gorgonio Pass Subbasin (Subbasin 7-21.03)
- Desert Hot Springs Subbasin (Subbasin 7-21.04)

DWR designated the Indio, Mission Creek, and San Gorgonio Pass Subbasins as medium-priority, and the Desert Hot Springs Subbasin as very low priority. None of the subbasins are adjudicated or in a state of overdraft.

In 1964, DWR estimated that the subbasins in the Coachella Valley Groundwater Basin contained approximately 39,200,000 acre-feet (AF) of water in the first 1,000 feet below the groundwater surface. The capacities of the subbasins are shown in **Table 3-1**.

Table 3-1: Groundwater Storage in the Coachella Valley Groundwater Basin

Subbasin/Subarea	Storage (AF) [1]
Indio Subbasin	
Palm Springs Subarea	4,600,000
Thousand Palms Subarea	1,800,000
Oasis Subarea	3,000,000
Garnet Hill Subarea	1,000,000
Thermal Subarea	19,400,000
Indio Subbasin Subtotal	**29,800,000**
Mission Creek Subbasin	2,600,000
San Gorgonio Subbasin	2,700,000
Desert Hot Springs Subbasin	4,100,000
Total	**39,200,000**

Source: DWR Bulletin 108 (1964)

[1] First 1,000 feet below ground surface. (DWR, 1964)

3.1.2 Groundwater Demand

Groundwater is the principal source of potable supply in the Coachella Valley and MSWD obtains groundwater from the Mission Creek Subbasin San Gorgonio Pass, and the Garnet Hill Subarea of the Coachella Valley Groundwater Basin. MSWD's groundwater demand in the Coachella Valley Groundwater Basin for 2016 through 2020 is shown in **Table 3-2**.

Table 3-2: MSWD Groundwater Demand in the Coachella Valley Groundwater Basin

Groundwater Production (AF)	2016	2017	2018	2019	2020
Mission Creek Subbasin	6,792	7,207	7,568	7,273	7,833
San Gorgonio Pass	145	156	153	153	165
Garnet Hill Subarea	285	449	154	266	270
Total	**7,222**	**7,812**	**7,875**	**7,692**	**8,268**

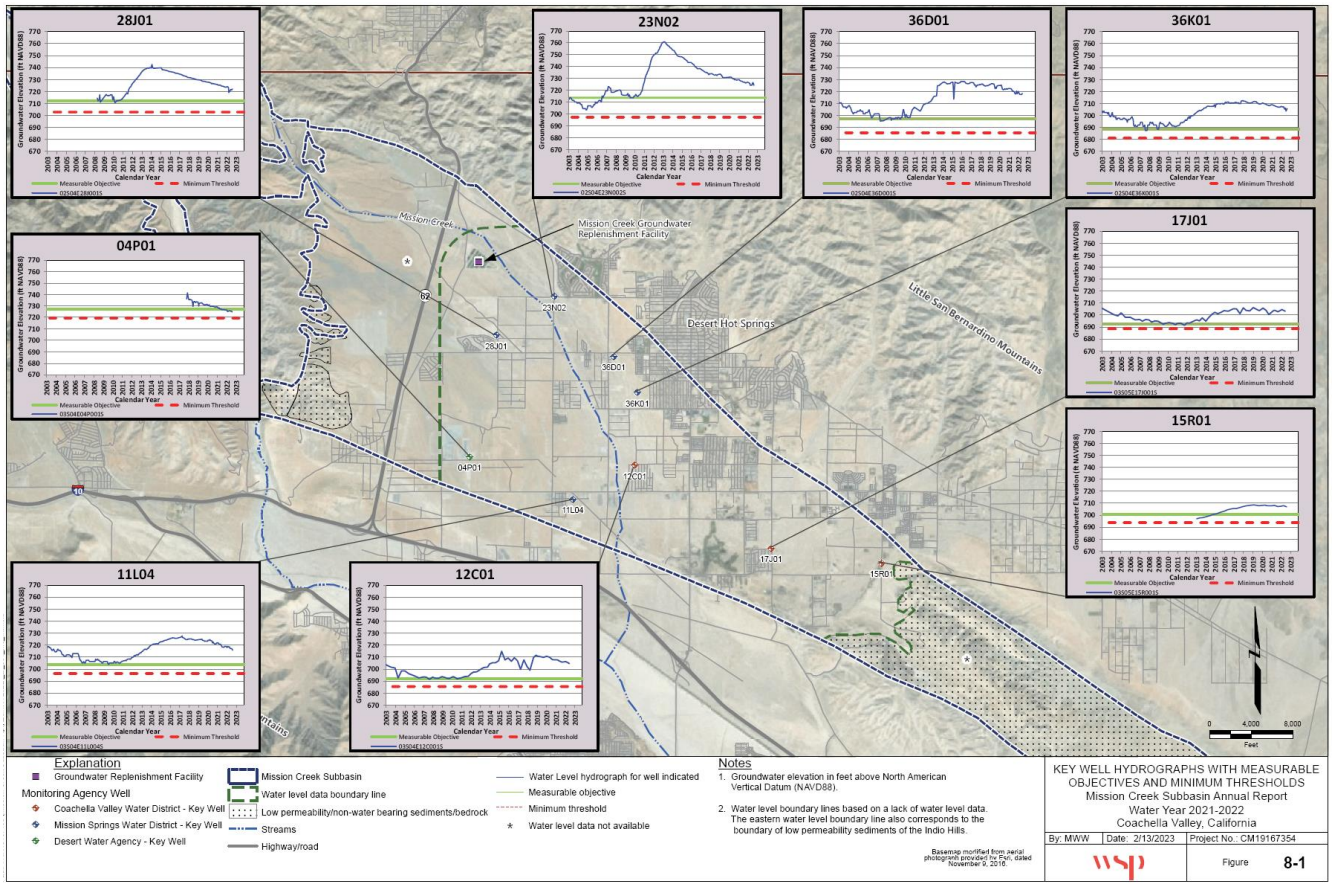
3.1.3 Groundwater Sustainability

Long-term sustainability is typically assessed based on changes in groundwater storage over a period on the order of ten to twenty years that includes wet and dry periods.

3.1.3.1 Mission Creek Subbasin

The 2022 Mission Creek Subbasin Alternative Plan Update identified nine Key Wells across the subbasin to represent local groundwater levels, as shown in **Figure 3-2**. The plan set MTs at each Key Well to demonstrate sustainability. In WY 2021-2022, water levels in all nine Key Wells remained above their respective MTs, as shown in the hydrographs in **Figure 3-2**. This confirms that the significant undesirable results of chronic lowering of groundwater levels, depletion of groundwater storage, and potential subsidence are not occurring in the Mission Creek Subbasin.

Figure 3-2: Water Level Monitoring Wells in the Mission Creek Subbasin

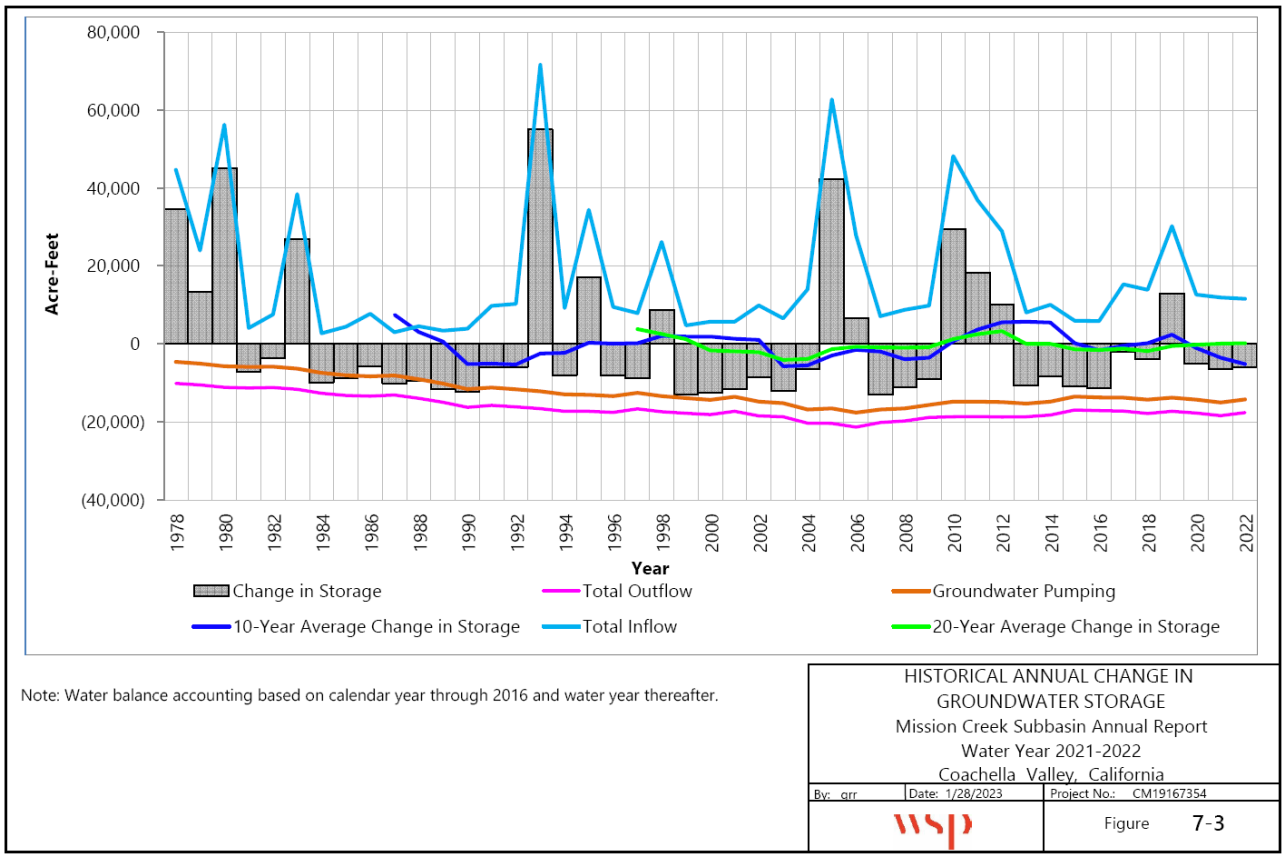


Source: 2022 Alternative Plan Update for the Mission Creek Subbasin

Figure 3-3 shows the historical annual change in groundwater storage from 1978 through WY 2021-2022 in the Mission Creek Subbasin. The figure also shows annual inflows, outflows, groundwater production, and 10-year and 20-year running-average change in groundwater storage. During periods of high artificial recharge, the change in storage tends to be positive. In dry years or periods of high groundwater pumping, the change in storage can be negative.

As shown in **Figure 3-3**, after a period of decline, starting in 2004 both the 10-year and 20-year running-average change in groundwater storage have shown positive trends. Annual inflows to the Mission Creek Subbasin are highly variable with years of high inflows corresponding to years when SWP delivery volumes were greater. The 20-year running-average change in storage shows that the Mission Creek Subbasin has been in balance since 2012.

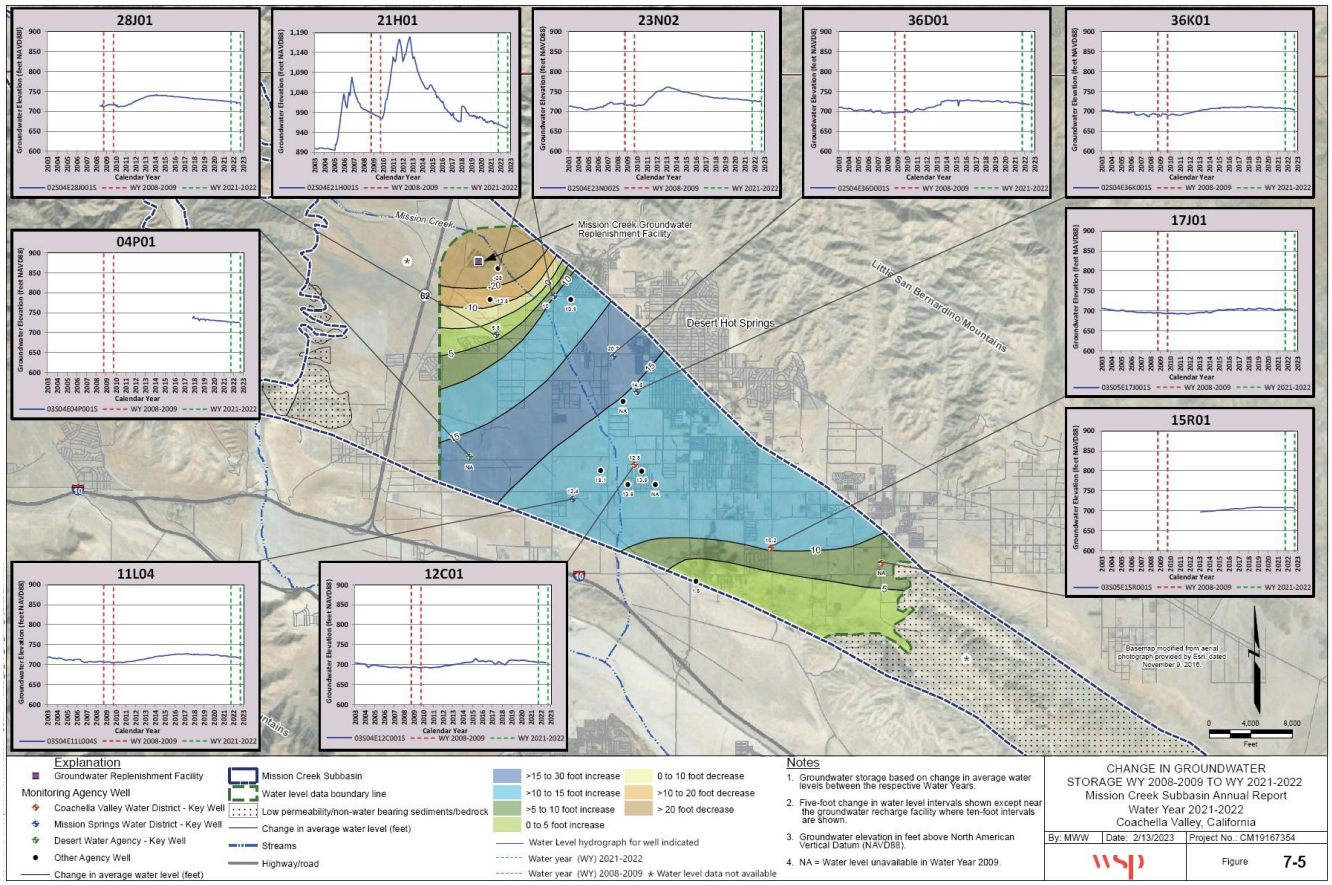
Figure 3-3: Historical Annual Change in Groundwater Storage in the Mission Creek Subbasin



Source: Mission Creek Subbasin Annual Report for Water Year 2021-2022

Groundwater levels have increased significantly in the Mission Creek Subbasin over the past 10 years from WY 2008-2009 to WY 2021-2022 as shown in **Figure 3-4**. The Mission Creek Subbasin Annual Report uses 2009 water levels as a metric of sustainability because historical low groundwater levels occurred in the years around 2009 throughout most of the Mission Creek Subbasin. The Mission Creek Subbasin shows a long-term positive trend in sustainability resulting from implementation of the Mission Creek Subbasin Alternative Plan.

Figure 3-4: Change in Groundwater Elevation from Water Year 2008-2009 through Water Year 2021-2022 in the Mission Creek Subbasin



Source: Mission Creek Subbasin Annual Report for Water Year 2021-2022

3.2 Imported Water

MSWD currently receives 100 percent of its water supply from groundwater production and does not purchase imported water from a water wholesaler. However, CVWD and DWA are remediating the overdraft condition of the groundwater in the Upper Coachella Valley by replenishment with Colorado River and State Water Project (SWP) Exchange water from Metropolitan Water District of Southern California (MWD). These imported water sources are used to recharge the groundwater basin and as an alternative source to meet non-potable demands from irrigation of agriculture, golf, and urban uses that would have otherwise been met by pumping groundwater.

3.2.1 Colorado River Water

Colorado River water has been a significant water supply source for the Indio Subbasin since the Coachella Canal was completed in 1949. CVWD and DWA's groundwater replenishment programs have percolated billions of gallons of water into the aquifer. This has been possible due to a supply of imported water from the State Water Project and the Colorado River, as well as long-term water rights to stream flows in the Whitewater River and its tributaries.

The Colorado River is managed and operated in accordance with the Law of the River, a collection of interstate compacts, federal and state legislation, various agreements and contracts, an international treaty, a U.S. Supreme Court decree, and federal administrative actions that govern the rights to use Colorado River water within the seven Colorado River Basin states. The 1922 Colorado River Compact apportioned the waters of the Colorado River Basin between the Upper Colorado River Basin (i.e., Colorado, Wyoming, Utah, and New Mexico) and the Lower Basin (i.e., Nevada, Arizona, and California). The 1922 Colorado River Compact allocates 15 million AFY of Colorado River water as follows: 7.5 million AFY to the Upper Basin and 7.5 million AFY to the Lower Basin, plus up to 1 million AFY of surplus supplies. The Lower Basin's water was further apportioned among the three Lower Basin states by the 1928 Boulder Canyon Project Act and the 1931 Boulder Canyon Project Agreement, typically called the 1931 Seven Party Agreement, which allocates California's apportionment of Colorado River water among Palo Verde Irrigation District, Imperial Irrigation District (IID), CVWD, Metropolitan Water District of Southern California (MWD), City of Los Angeles, City of San Diego, and County of San Diego. The 1964 U.S. Supreme Court decree in Arizona v. California established Arizona's basic annual apportionment at 2.8 million AFY, California's at 4.4 million AFY, and Nevada's at 0.3 million AFY. Mexico is entitled to 1.5 million AFY of the Colorado River under the 1944 United States-Mexico Treaty for Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande. However, this treaty did not specify a required quality for water entering Mexico. In 1973, the United States and Mexico signed Minute No. 242 of the International Boundary and Water Commission requiring certain water quality standards for water entering Mexico. California's Colorado River supply is protected by the 1968 Colorado River Basin Project Act, which provides that in years of insufficient supply on the main stem of the Colorado River, supplies to the Central Arizona Project shall be reduced to zero before California will be reduced below 4.4 million AF in any year. This assures full supplies to the Coachella Valley, except in periods of extreme drought.

The Coachella Canal is a branch of the All-American Canal that brings Colorado River water into the Imperial and Coachella Valleys. Under the 1931 Seven Party Agreement, CVWD receives 330,000 AFY of Priority 3A Colorado River water diverted from the All-American Canal at the Imperial Dam. The Coachella Canal originates at Drop 1 on the All-American Canal and extends approximately 123 miles, terminating in CVWD's Lake Cahuilla. The service area for Colorado River water delivery under CVWD's contract with the U.S. Bureau of Reclamation (USBR) is defined as Improvement District No. 1 (ID-1), which encompasses 136,400 acres covering most of the East Valley and a portion of the West Valley north of Interstate 10. Under the 1931 Seven Party Agreement, CVWD has water rights to Colorado River water as part of the first 3.85 million AFY allocated to California. CVWD is in the third priority position along with IID.

In 2003, CVWD, IID, and MWD successfully negotiated the 2003 Quantification Settlement Agreement (2003 QSA), which quantifies Colorado River allocations through 2077 and supports the transfer of water between agencies. Under the 2003 QSA, CVWD has a base entitlement of 330,000 AFY. CVWD negotiated water transfer agreements with MWD and IID that increased CVWD supplies by an additional 123,000 AFY. CVWD's net QSA supply will increase to 424,000 AFY by 2026 and remain at that level until 2047, decreasing to 421,000 AFY until 2077, when the agreement terminates. As of 2021, CVWD's available Colorado River water diversions at Imperial

Dam under the QSA were 399,000 AFY. This includes the base entitlement of 330,000 AFY, the MWD/IID Transfer of 20,000 AFY, IID/CVWD First Transfer of 50,000 AFY, and IID/CVWD Second Transfer of 28,000 AFY. CVWD's QSA diversions also deducts the -26,000 AFY transferred to San Diego County Water Authority (SDCWA) as part of the Coachella Canal Lining Project and the -3,000 AFY transfer to Indian Present Perfected Rights. Additionally, under the 2003 QSA, MWD transferred 35,000 AFY of its State Water Project (SWP) Table A Amount to CVWD. This SWP water is exchanged for Colorado River water and can be delivered at Imperial Dam for delivery via the Coachella Canal to the eastern portion of the Indio Subbasin or at Lake Havasu for delivery via the Colorado River Aqueduct to the western portion of the Indio Subbasin at the Whitewater River Groundwater Replenishment Facility (WWR-GRF). The 2019 Second Amendment guaranteed delivery of the 35,000 AFY from 2019 to 2026, for a total of 280,000 AFY of water to the WWR-GRF during that timeframe. MWD can deliver the water through CVWD's Whitewater Service Connections (for recharge at WWR-GRF) or via the Advance Delivery account.

The MWD/IID Transfer originated in a 1989 agreement with MWD to receive 20,000 AF of its Colorado River supply. The 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water defined the exchange and delivery terms between MWD, CVWD, and DWA. The 2019 Second Amendment to Delivery and Exchange Agreement reduced CVWD's annual delivery of the MWD/IID Transfer to 15,000 AFY, for a total of 105,000 AF, if taken at the Whitewater Service Connections (for recharge at WWR-GRF) between 2020 and 2026. For those seven years, MWD keeps the remaining 5,000 AFY, after which CVWD's allocation increases back up to 20,000 AFY. CVWD's total allocations under the QSA, including MWD's transfer of 35,000 AFY and the MWD/IID Transfer, will increase from 424,000 AFY in 2020 to 459,000 AFY by 2026 and remain at that level for the remainder of the 75-year term of the QSA. **Table 3-3** lists total Colorado River entitlements under existing agreements.

Table 3-3: CVWD Colorado River Entitlements (AFY)

Diversion	2020	2025	2030	2035	2040	2045
Base Entitlement	330,000	330,000	330,000	330,000	330,000	330,000
1988 MWD/IID Approval Agreement	20,000	20,000	20,000	20,000	20,000	20,000
IID/CVWD First Transfer	50,000	50,000	50,000	50,000	50,000	50,000
IID/CVWD Second Transfer[1]	23,000	48,000	53,000	53,000	53,000	53,000
Coachella Canal Lining	-26,000	-26,000	-26,000	-26,000	-26,000	-26,000
Indian Present Perfected Rights Transfer	-3,000	-3,000	-3,000	-3,000	-3,000	-3,000
QSA Diversions	**394,000**	**419,000**	**424,000**	**424,000**	**424,000**	**424,000**
MWD SWP Transfer[2]	35,000	35,000	35,000	35,000	35,000	35,000
Total Diversions	**429,000**	**454,000**	**459,000**	**459,000**	**459,000**	**459,000**
Assumed Conveyance Losses (5%)	-21,200	-22,700	-22,950	-22,950	-22,950	-22,950
MWD/IID Approval Agreement Transfer[3]	-5,000	-5,000	0	0	0	0
Total Available Deliveries	**402,800**	**426,300**	**436,050**	**436,050**	**436,050**	**436,050**

Source: 2022 Alternative Plan Update for the Indio Subbasin

[1] The Second IID/CVWD Transfer began in 2018 with 13,000 AF of water. This amount increases annually by 5,000 AFY for a total of 53,000 AFY in 2026.

[2] The 35,000 AFY MWD/CVWD SWP Transfer may be delivered at either Imperial Dam or Whitewater River and is not subject to SWP or Colorado River reliability.

1 Accounts for -5,000 AFY reduction in MWD/IID Approval Agreement deliveries from 2020-2026 per the 2019 Amendments with MWD.

The Colorado River deliveries to CVWD at the Imperial Dam/Coachella Canal from 2018 through 2022 are shown in **Table 3-4.**

Table 3-4: Colorado River Deliveries to CVWD at the Imperial Dam/Coachella Canal

Diversions (AF)	2018	2019	2020[1]	2021[1]	2022[1]
Imperial Dam/Coachella Canal	338,035	343,971	350,618	351,904	330,387

Source: U.S. Bureau of Reclamation, Lower Colorado Region, Colorado River Accounting and Water Use Reports for Arizona, California, and Nevada.

[1] The 15,000 AFY of 1988 MWD/IID Approval Agreement water was delivered at WWR-GRF from 2020 to 2022.

CVWD's recharge volumes of Colorado River water from 2018 through 2022 are shown in **Table 3-5**.

Table 3-5: CVWD Groundwater Recharge of Colorado River Water

Groundwater Recharge (AF)	2018	2019	2020	2021	2022
Thomas E. Levy GRF	33,348	36,143	37,536	37,971	27,993
Palm Desert GRF	0	7,757	9,700	10,633	10,949
Total	**33,348**	**43,900**	**47,236**	**48,604**	**38,942**

Source: 2023-2024 CVWD Annual Engineer's Reports on Water Supply and Replenishment Assessment

3.2.2 State Water Project

The SWP is managed by DWR and includes 705 miles of aqueduct and conveyance facilities extending from Lake Oroville in Northern California to Lake Perris in Southern California. The SWP has contracts to deliver 4.172 million AFY to the State Water Contractors. The State Water Contractors consist of 29 public entities with long-term contracts with DWR for all, or a portion of, their water supply needs. In 1962 and 1963, DWA and CVWD, respectively, entered contracts with the State of California for a total of 61,200 AFY of SWP water. SWP water has been an important component of the region's water supply mix since CVWD and DWA began receiving and recharging SWP exchange water at the WWR-GRF. Starting in 1973, CVWD and DWA began exchanging their SWP water with MWD for Colorado River water delivered via MWD's Colorado River Aqueduct. Because CVWD and DWA do not have a physical connection to SWP conveyance facilities, MWD takes delivery of CVWD's and DWA's SWP water, and in exchange, delivers an equal amount of Colorado River water to the Whitewater Service Connections (for recharge at WWR-GRF and Mission Creek Groundwater Replenishment Facility). The exchange agreement was most recently re-established in the 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water.

Each SWP contract contains a "Table A" exhibit that defines the maximum annual amount of water each contractor can receive excluding certain interruptible deliveries. DWR uses Table A amounts to allocate available SWP supplies and some SWP project costs among the contractors. Each year, DWR determines the amount of water available for delivery to SWP contractors based on hydrology, reservoir storage, the requirements of water rights licenses and permits, water

quality, and environmental requirements for protected species in the Sacramento-San Joaquin River Delta (Delta). The available supply is then allocated according to each SWP contractor's Table A amount.

CVWD's and DWA's collective increments of Table A water are listed in **Table 3-6**. Original Table A SWP water allocations for CVWD and DWA were 23,100 AFY and 38,100 AFY, respectively, for a combined amount of 61,200 AFY. CVWD and DWA obtained a combined 100,000 AFY transfer from MWD under the 2003 Exchange Agreement. In 2004, CVWD purchased an additional 9,900 AFY of SWP Table A water from the Tulare Lake Basin Water Storage District (Tulare Lake Basin) in Kings County. In 2007, CVWD and DWA made a second purchase of Table A SWP water from Tulare Lake Basin totaling 7,000 AFY. In 2007, CVWD and DWA also completed the transfer of 16,000 AFY of Table A Amounts from the Berrenda Mesa Water District in Kern County. These latter two transfers became effective in January 2010. With these additional transfers, the total SWP Table A Amount for CVWD and DWA is 194,100 AFY. **Table 3-7** shows the percent allocation of SWP Table A allocations from 2018 through 2022. **Table 3-8** shows the recharge of SWP Exchange Water from 2018 through 2022.

Table 3-6: State Water Project Table A Allocations

	Original SWP Table A (AFY)	Tulare Lake Basin 2004 Transfer (AFY)	Metropolitan Water District 2003 Transfer (AFY)	Tulare Lake Basin 2007 Transfer (AFY)	Berrenda Mesa 2007 Transfer (AFY)	Total (AFY)
CVWD	23,100	9,900	88,100	5,250	12,000	138,350
DWA	38,100	0	11,900	1,750	4,000	55,750
Total	**61,200**	**9,900**	**100,000**	**7,000**	**16,000**	**194,100**

Source: 2020 Coachella Valley Regional Urban Water Management Plan

Table 3-7: State Water Project Table A Percent Allocations

	2018	2019	2020	2021	2022
Table A Allocation	35%	75%	20%	5%	5%

Source: CA Department of Water Resources Historical Table A Allocations for Years 1996-2023

Table 3-8: CVWD and DWA Groundwater Recharge

Groundwater Recharge (AF)	2018	2019	2020	2021	2022
Whitewater River GRF	129,725	235,600	126,487[1]	15,006[1]	15,011[1]
Mission Creek GRF	2,027	3,688	1,768	0	0
Total	**131,752**	**239,288**	**128,255**	**15,006**	**15,011**

Source: CVWD 2023-2024 Annual Engineer's Reports on Water Supply and Replenishment Assessment

[1] Between 2020 and 2022, the 15,000 AFY of 1988 MWD/IID Approval Agreement water was delivered at Whitewater River GRF.

3.2.3 Other SWP Water

There are other types of SWP water that can be purchased, such as individual water purchase opportunities and transfers/exchanges. These may be conveyed to CVWD and DWA as available, but no commitments exist.

In 2008, CVWD and DWA entered into separate agreements with DWR for the purchase and conveyance of supplemental SWP water under the Yuba River Accord Dry Year Water Purchase Program (Yuba Accord). This program provides dry year supplies through a water purchase agreement between DWR and Yuba County Water Agency, which settled long-standing operational and environmental issues over instream flow requirements for the lower Yuba River. The amount of water available for purchase varies annually and is allocated among participating SWP contractors based on their Table A amounts. CVWD and DWA may purchase up to 1.72 percent and 0.69 percent, respectively, of available Yuba Accord water, in years it is made available. Yuba Accord deliveries have varied from zero in multiple years to a total of 2,664 AFY to CVWD and DWA in 2013.

Article 21 water (described in Article 21 of the SWP water contracts), "Interruptible Water," is water that State Water Contractors may receive on a short-term basis in addition to their Table A water if they request it in years when it is available. Article 21 water is used by many contractors to help meet demands in low allocation years. Article 21 water is not available every year, amounts vary when it is available, and is proportionately allocated among participating Contractors. The availability and delivery of Article 21 water cannot interfere with normal SWP operations and cannot be carried over for delivery in a subsequent year.

3.3 Surface Water

MSWD does not currently use or intend to use any local surface water as part of its urban potable water supply. Local runoff is captured and used for groundwater recharge.

3.3.1 River/Stream Diversion

Surface water supplies come from several local rivers and streams including the Whitewater River, Snow Creek, Falls Creek, and Chino Creek, as well as a number of smaller creeks and washes. Because surface water supplies are affected by variations in annual precipitation, the annual supply is highly variable. The 50-year hydrologic period from 1970 to 2019 had an annual average watershed runoff of 52,506 AFY, with approximately 43,300 AFY in natural infiltration. Runoff during the 25-year period from 1995 to 2019 was below average, with 39,196 AFY in watershed runoff and 29,200 AFY in natural infiltration. MSWD does not currently use or intend to use any local surface water as part of its urban potable water supply. Local runoff is captured and used for groundwater recharge.

3.3.2 Stormwater Capture

The Coachella Valley drainage area is approximately 65 percent mountainous and 35 percent typical desert valley with alluvial fan topography buffering the valley floor from the steep mountain slopes. The mean annual precipitation ranges from 30 inches or more in the San Bernardino Mountains to less than 3 inches at the Salton Sea. Three types of storms produce precipitation in the drainage area: general winter storms, general thunderstorms, and local thunderstorms. Longer duration, lower intensity rainfall events tend to have higher recharge

rates, but runoff from flash flooding can result from all three types of storms. Otherwise, there is little to no flow in most of the streams in the drainage area.

Significant amounts of local runoff are currently captured at the Whitewater River GRF, Mission Creek GRF, and in the debris basins and unlined channels of the western Coachella Valley. Additional stormwater will be captured when the Thousand Palms Flood Control Project is completed and when flood control is constructed in the Oasis area. However, limited data exists to estimate the amount of additional stormwater that could be captured by new facilities in the Coachella Valley. Nonetheless, large-scale stormwater capture is not expected to yield sufficient water to be worth the investment as a single purpose project. Small-scale stormwater retention systems located in areas of suitable geology to allow percolation could capture small intensity storms as well as street runoff. The potential yield of this system is not known at this time, but stormwater capture should be considered in conjunction with projects that construct stormwater and flood control facilities.

3.4 Wastewater and Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other purposes. Recycled wastewater has historically been used for irrigation of golf courses and municipal landscaping in the Coachella Valley since as early as the 1960s. As growth occurs in the eastern Coachella Valley, the supply of recycled water is expected to increase, creating an additional opportunity to maximize local water supply.

MSWD currently operates two wastewater treatment plants. The Horton Wastewater Treatment Plant (Horton WWTP), located on Verbena Drive about a half mile south of Two Bunch Palms Trail, has a capacity of 2.3 million gallons per day (MGD). The plant uses an extended aeration process for treatment and disposes of the secondary wastewater, which is not disinfected, in adjacent percolation/evaporation ponds. The sludge generated from the treatment process is run through a dewatering sludge filter press and then trucked offsite to proper disposal areas. The average daily flow metered to the plant in 2020 was 2.0 MGD.

The Desert Crest Wastewater Treatment Plant, located about a half mile southeast of the intersection of Dillion Road and Long Canyon Road, has a capacity of 0.18 MGD and serves a country club development and mobile home park. The facility operates similarly to the Horton WWTP using an aeration basin for treatment and disposes of the secondary wastewater, which is not disinfected, by way of percolation/evaporation ponds. The sludge generated from the treatment process is dried in on-site beds and then trucked offsite to proper disposal areas. The average daily flow to the plant in 2020 was metered at 0.05 MGD.

Both District wastewater treatment plants uses an extended aeration process for treatment and dispose of the secondary wastewater, which is not disinfected, in adjacent percolation/evaporation ponds located within the plant on the southwest (potable water) side of the Mission Creek Fault. In addition, effluent is used for irrigation and maintenance at the treatment plants.

The District is constructing the MSWD Nancy Wright Regional Water Reclamation Facility (NWRWRF) to meet increasing wastewater demands. In its initial phase, the RWRF will use a sequence batch reactor process for treatment and disposal of the secondary wastewater, which is not disinfected, in adjacent percolation/evaporation ponds located within the plant over the Garnet Hill Subarea. The District plans to produce recycled water meeting Title 22 standards with tertiary treatment facilities in the subsequent phase. The primary recycled water demands are foreseen to be replenishment of the Mission Creek Subbasin and public green areas, golf courses and playing fields that were identified as part of the 2018 study. Consistent with recycled water demands that have been identified and estimated system wastewater flows, it is envisioned that the recycled water system including the NWRWRF will be expanded to accommodate a system recycled water system demand of 5,000 AFY by 2045.

3.5 Conservation

Water conservation, and the reduced groundwater production associated with water conservation, benefits the groundwater basin and is an important element of the Alternative Plans and the 2020 Regional Urban Water Management Plan (UWMP).

The purpose of this regional UWMP is to allow the six agencies to address UWMP requirements. These requirements originated in California's Urban Water Management Planning Act of 1983 (Act), and the requirements have been expanded and updated with subsequent legislation. Agencies are required to prepare an updated UWMP every five years and submit it to the California Department of Water Resources (DWR). DWR then performs a review to verify that each UWMP addresses the requirements of the California Water Code (CWC). MSWD created and adopted a Water Shortage Contingency Plan (WSCP) in June 2021.

MSWD utilizes rebate programs within its service area, including a turf removal rebate program and a toilet rebate program. These rebates assist homeowners, homeowner associations, and commercial customers to reduce water usage. MSWD is also a partner in CV Water Counts, a nonprofit group formed to focus on water conservation, through awareness-building and education to Coachella Valley residents, businesses, and government. The group is comprised of the six Coachella Valley water agencies.

3.6 Landscape Ordinance

In order to practice water conservation, the Project would abide by Mission Spring Water District Water Efficient Landscaping Guidelines (Landscape Guidelines). The intent of the Landscape Guidelines is to promote water conservation through climate appropriate plant material and efficient irrigation practices and comply with the State of California's Water Conservation in Landscaping Act. The Landscape Guidelines apply to all new and rehabilitated landscapes for private, recreational and commercial developments, including single or multifamily housing developments, and residential infill unless the owner selects a pre-approved landscape design model that conforms to these guidelines.

In Exhibit 1, *Landscape Documentation Package,* of the Landscape Guidelines, a formula is provided to determine a project's annual maximum applied water allowance (MAWA). To calculate the total water demand for the Project, this document references the most updated ETo map for the region. Additionally, the document references the most updated evapotranspiration adjustment factor (ET adjustment factor) for the region. This is shown in **Table 6-2: Projected Outdoor Irrigation Water Demand** in the **Project Water Demands** section below.

3.7 Water Shortage Contingency Planning

Each level in **Table 3-9** represents an anticipated reduction in the supplies that would normally be available to MSWD. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. MSWD may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event. The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

Table 3-9: Urban Water Shortage Contingency Plan Shortage Levels

Shortage Level	Shortage Range	Water Supply Condition
1	Up to 10%	Normal water supplies
2	Up to 20%	Slightly limited water supplies
3	Up to 30%	Moderately limited water supplies
4	Up to 40%	Limited water supplies
5	Up to 50%	Significantly limited water supplies
6	Greater than 50%	Severe shortage or catastrophic incident

Source: 2021 MSWD Water Shortage Contingency Plan

4 Public Water System – Projected Supply and Demand

Mission Springs Water District (MSWD) projects that a majority of its urban potable water uses will continue to be supplied from local groundwater. Although MSWD does not buy imported water from a wholesaler, CVWD has secured imported water supplies from the State Water Project (SWP) and the Colorado River, and recycled water from water reclamation plants. These imported and recycled water supplies are used to replenish the groundwater basin which benefits all water districts in the Coachella Valley.

4.1 Projected Urban Demand and Supply

The following tables from the 2020 Regional Urban Water Management Plan (Regional UWMP) provide the MSWD's projected water supplies and demands. Projected demands for water use in the MSWD service area are summarized in **Table 4-1**.

Table 4-1: MSWD Projected Demands for Water

	Projected Water Use				
Use Type	**2025**	**2030**	**2035**	**2040**	**2045**
Single Family	4,743	5,143	5,543	6,066	6,588
Multi-Family	1,316	1,427	1,538	1,683	1,828
Commercial	459	498	537	587	638
Industrial	298	323	348	381	413
Institutional /Governmental	179	194	209	229	249
Landscape	984	1,067	1,150	1,258	1,366
Other	1,017	1,102	1,188	1,300	1,412
Total	**8,996**	**9,754**	**10,513**	**11,504**	**12,494**
Note: "Other" represents non-revenue water, which includes losses.					

Source: 2020 Coachella Valley Regional Urban Water Management Plan

MSWD currently receives 100 percent of its water supply from groundwater production and does not purchase imported water from a water wholesaler. However, CVWD and DWA are remediating the overdraft condition of the groundwater in the Upper Coachella Valley by replenishment with Colorado River and State Water Project (SWP) Exchange water from Metropolitan Water District of Southern California (MWD). District groundwater meets all Federal and State primary and secondary water quality standards without treatment (other than chlorination for disinfection) with the exceptions that groundwater from Well No. 26A is treated at each well site to meet the primary water quality standard for uranium.

The construction of recycled water infrastructure including tertiary treatment facilities at the planned RWRF is projected to accommodate future deliveries of recycled water. MSWD's projected supplies through 2045 are presented in **Table 4-2**.

Table 4-2: MSWD Projected Urban Water Supplies

	Projected Water Supply (AFY)					
Water Supply	**Additional Detail on Water Supply**	**2025**	**2030**	**2035**	**2040**	**2045**
Groundwater	All Subbasins	8,996	9,754	10,513	11,504	12,495
Recycled Water		0	1,210	2,200	3,600	5,000
Total		**8,996**	**10,964**	**12,713**	**15,104**	**17,495**

Source: 2020 Coachella Valley Regional Urban Water Management Plan

4.2 Normal, Single-Dry, Multiple-Dry Year Comparison

The following tables from the 2020 Regional UWMP provide MSWD's projected water supplies and demands in a normal year, single-dry year, and multiple-dry years.

During normal years, MSWD will be able to meet current and future urban water demand needs projected in the 2020 Regional UWMP as shown in **Table 4-3**.

Table 4-3: Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply Totals (AFY)	8,996	10,874	12,713	15,104	17,495
Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
Difference	**0**	**0**	**0**	**0**	**0**

Source: 2020 Regional Urban Water Management Plan

Note: MSWD and the other Regional UWMP agencies collaborate on groundwater management plans for long-term sustainability. During a normal year, single-dry year, or five-dry year period, the agencies could produce additional groundwater if demands exceeded the estimates shown here.

During single-dry years, MSWD will be able to meet current and future urban water demand needs as shown in **Table 4-4**. Water supplies during the single-dry year are 100 percent reliable. CVWD's groundwater replenishment program replenishes the basin to increase groundwater storage during wet years and that supply is available for use during dry years which benefits all water districts using ground water, including MSWD. Thus, the supply and demand comparison for the single-dry year is the same as the normal year.

Table 4-4: Single-Dry Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply Totals (AFY)	8,996	10,874	12,713	15,104	17,495
Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
Difference	**0**	**0**	**0**	**0**	**0**

Source: 2020 Regional Urban Water Management Plan

Note: MSWD and the other Regional UWMP agencies collaborate on groundwater management plans for long-term sustainability. During a normal year, single-dry year, or five-dry year period, the agencies could produce additional groundwater if demands exceeded the estimates shown here.

During multiple-dry years, MSWD will be able to meet current and future urban water demand needs through groundwater pumping as shown in **Table 4-5**. Similar to the single-dry year, the multiple-dry year water supply reliability is 100 percent. Thus, the supply and demand comparison for the multiple-dry years is the same as the normal year. MSWD and the other Regional UWMP agencies collaborate on groundwater management plans for long-term sustainability. During a normal year, single-dry year, or five-dry year period, the agencies could produce additional groundwater if demands exceeded the estimates shown here.

Table 4-5: Multiple-Dry Years Supply and Demand Comparison

		2025	2030	2035	2040	2045
First Year	**Supply Totals (AFY)**	8,996	10,874	12,713	15,104	17,495
	Demand Totals (AFY)	8996	10,874	12,713	15,104	17,495
	Difference	**0**	**0**	**0**	**0**	**0**
Second Year	**Supply Totals (AFY)**	8,996	10,874	12,713	15,104	17,495
	Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
	Difference	**0**	**0**	**0**	**0**	**0**
Third Year	**Supply Totals (AFY)**	8,996	10,874	12,713	15,104	17,495
	Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
	Difference	**0**	**0**	**0**	**0**	**0**

Fourth Year	**Supply Totals (AFY)**	8,996	10,874	12,713	15,104	17,495
	Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
	Difference	**0**	**0**	**0**	**0**	**0**
Fifth Year	**Supply Totals (AFY)**	8,996	10,874	12,713	15,104	17,495
	Demand Totals (AFY)	8,996	10,874	12,713	15,104	17,495
	Difference	**0**	**0**	**0**	**0**	**0**

Source: 2020 Regional Urban Water Management Plan

Note: MSWD and the other Regional UWMP agencies collaborate on groundwater management plans for long-term sustainability. During a normal year, single-dry year, or five-dry year period, the agencies could produce additional groundwater if demands exceeded the estimates shown here.

5 Project Description

The Project is located in the western portion of the Coachella Valley within the incorporated limits of the City of Palm Springs, Riverside County as shown in **Figure 5-1**. The Project will be accessible from Indian Canyon Drive and is bounded by undeveloped land to the north, Indian Canyon Drive to the east, 19th Avenue to the south, and a wind turbine site to the west. The Project proposes to develop 39.54 acres of vacant land in the Coachella Valley to include 16.70 acres of industrial building area, 15.39 acres of parking, access roads, and hardscape, approximately 3 acres of right of way dedication, and 4.38 acres of landscaping, open space, and retention areas. **Figure 5-2** displays the vicinity map; **Figure 5-3** displays the site plan; **Table 5-1** describes the land use summary of the project.

Figure 5-1: Project Regional Location Map

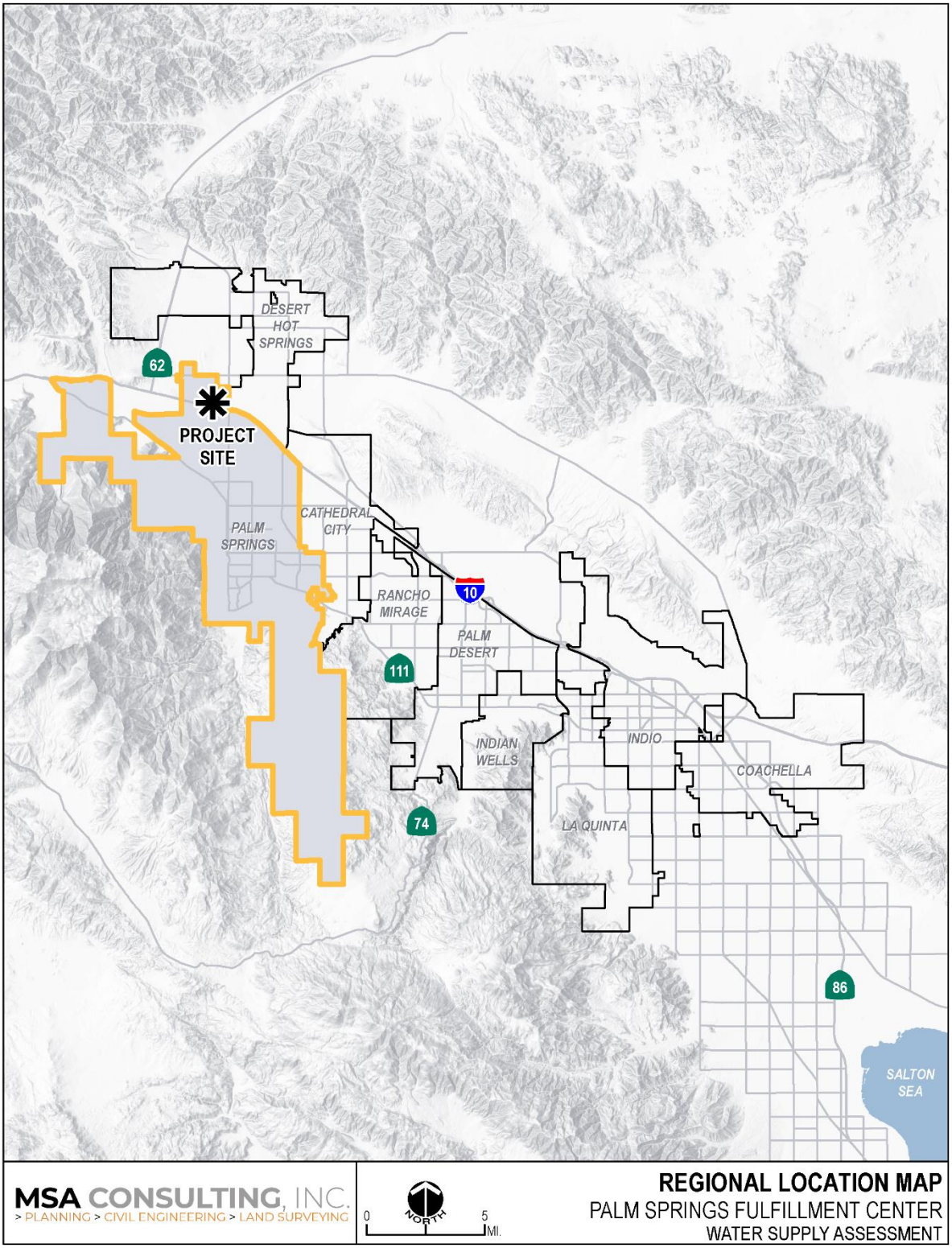


Figure 5-2: Project Vicinity Map

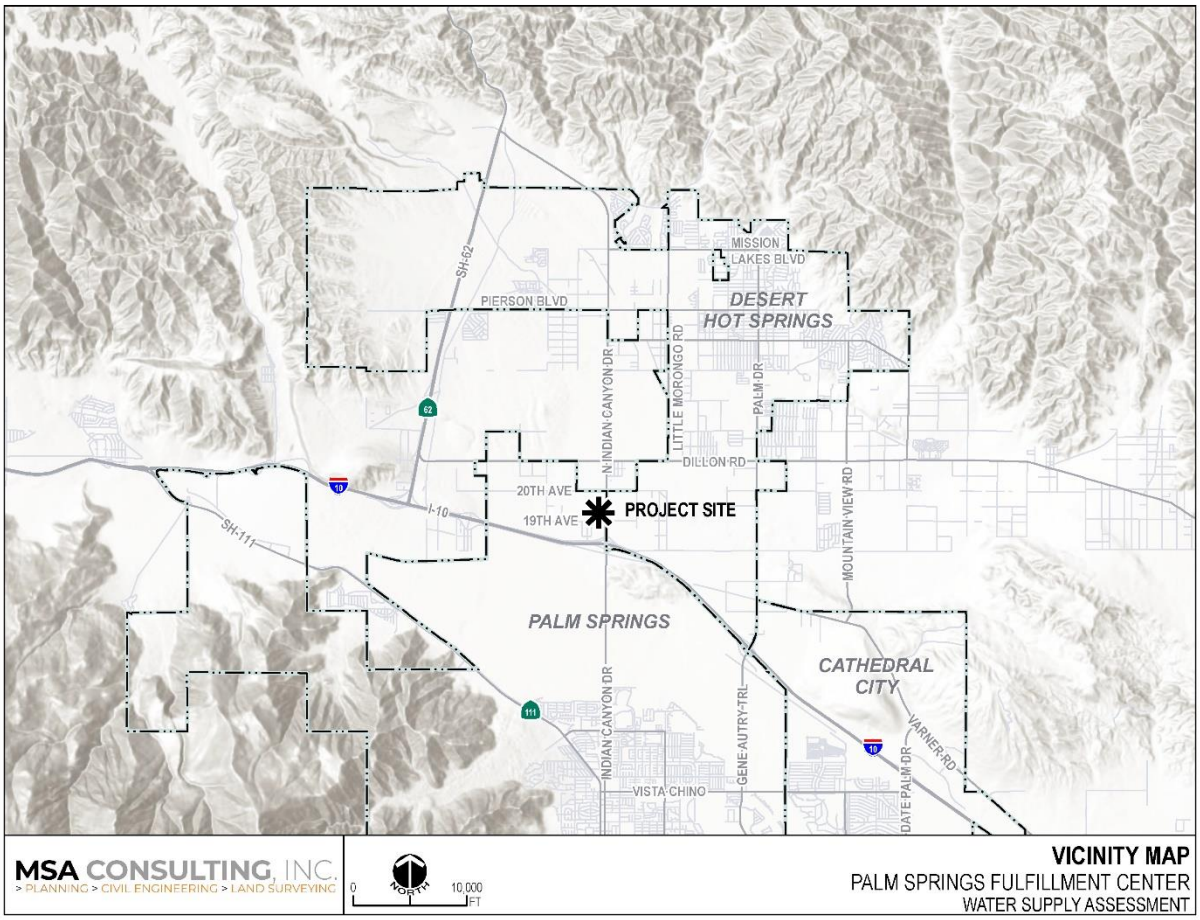


Figure 5-3: Project Site Plan

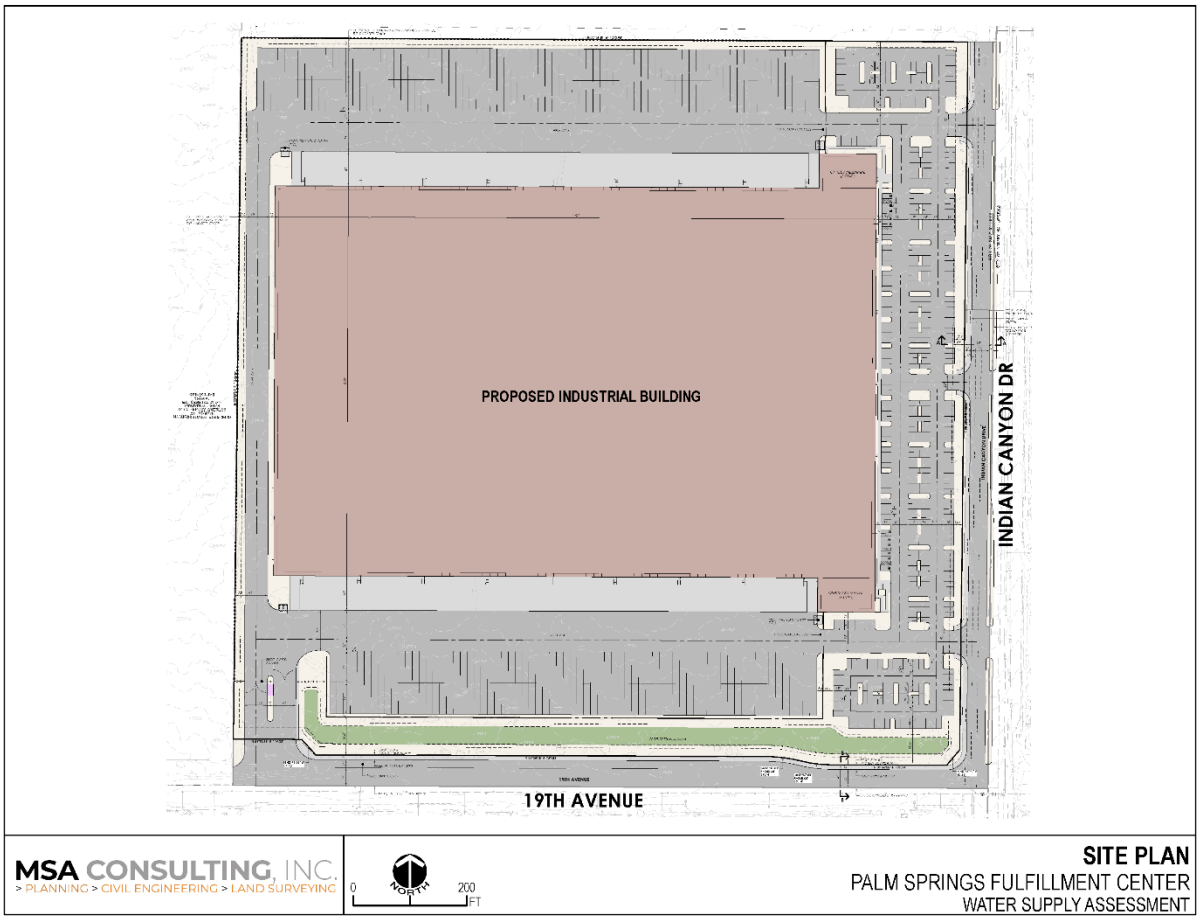


Table 5-1: Project Land Use Summary

Specific Plan/Land Use Designation	Land Area (Acres)	Target Density (EDUs/Acre)	Estimated Dwelling Units (EDUs)	Non-Residential Building Area (ft^2)
Industrial Building Area	16.7	0.00	0	727,360
Access Roads/Hardscape/Parking	15.39	0.00	0	670,291
Landscape/Open Space/Retention Basins	4.38	0.00	0	190,815
Right of Way Dedication	3.07	0.00	0	133,708
Total	**39.54**		**0**	**1,722,174**

6 Project Water Demands

The Palm Springs Fulfillment Center (Project) proposes to develop 39.54 acres of vacant land in the Coachella Valley to include 16.70 acres (727,360 square feet) of industrial building area, 15.39

acres of parking, access roads, and hardscape, approximately 3 acres of right of way dedication, and 4.38 acres of landscaping, open space, and retention areas.

6.1 Projected Indoor Residential Water Demand

The projected indoor residential unit usage for this Water Supply Assessment/Water Supply Verification (WSA/WSV) is based on indoor water use performance standards as provided in the California Water Code (CWC) for residential water demand Water Code Section 10910 approved November 10, 2009, codified in CWC section 10608.20 (b)(2)(A). The projected indoor residential water demand for the Project is 0 due to there being no residential areas.

6.2 Projected Indoor Commercial and Industrial Water Demand

The projected indoor commercial and industrial unit usage for this WSA/WSV are based on the American Water Works Association Research Foundations (AWWARF's) Commercial and Industrial End Uses of Water. The projected indoor commercial and industrial water demand for the Project totals 78.13 AFY as shown in **Table 6-1** below.

Table 6-1: Projected Indoor Commercial and Industrial Water Demand

Planning Area	Indoor Area (ft^2)	Number of Rooms	Maximum Interior Floor Space per Unit	Water Demand Factor (gal/ ft^2)[1]	Water Demand (gpd)	Water Demand (AFY)
Industrial Planning Area	727,360			35	69,746.85	78.13

[1] AWWARF Commercial and Industrial End Uses of Water, 2000.

6.3 Projected Outdoor Irrigation Water Demand

The projected outdoor irrigation water usage is based on the District's Water Efficient Landscaping Guidelines which complies with the State of California's Water Conservation in Landscaping Act. Exhibit 1, *Landscape Documentation Package,* was referenced to calculate the projected outdoor irrigation water demand. In Exhibit 1, *Landscape Documentation Package,* a formula is provided to determine a project's annual maximum applied water allowance (MAWA). To calculate the total water demand for the Project, this document references the most updated ETo map for the region. Additionally, this document references the most updated evapotranspiration adjustment factor (ET adjustment factor) for the region. The projected outdoor irrigation water demand for the Project is 40.24 AFY as shown in **Table 6-2** below.

Table 6-2: Projected Outdoor Irrigation Water Demand

Planning Area	Landscaped Area (ft^2)	ETo (in/yr) [1]	ETAF [2]	Conversion Factor (gal/ft^2) [3]	Water Demand (gpd)	Water Demand (AFY)
Industrial Building Area	0	83.3	0.45	0.62	0.00	0.00
Access Roads/Hardscape /Parking	335,194.20	83.3	0.45	0.62	21,342.87	23.91
Landscape/Open Space/Retention Areas	162,173.88	83.3	0.45	0.62	10,326.12	11.57
Right of Way Dedication	66,864.60	83.3	0.45	0.62	4,257.48	4.77
Total	**564,232.68**				**35,926.47**	**40.24**

[1] Reference Evapotranspiration (ETo) from CVWD Landscape Ordinance 1302.5, Appendix C

[2] Evapotranspiration Adjustment Factor (ETAF) from CVWD Landscape Ordinance 1302.5, Appendix D

[3] Conversion Factor from MSWD Water Efficient Landscaping Guidelines, Exhibit 1, Landscape Documentation Package

6.4 Projected Outdoor Water Features Demand

The projected outdoor recreational water usage is based on the Estimated Total Water Usage (ETWU) equation from Appendix D of CVWD's Landscape Ordinance No. 1302.5. The projected outdoor water features demand for the Project is 0 due to there being no outdoor water features.

6.5 Projected Total Water Demand

The total projected water demand for the Project is 118.37 AFY, or 2.99 acre-feet per acre, as shown in **Table 6-3** below.

Table 6-3: Projected Total Water Demand

Planning Area	Land Area (Acres)	Indoor Residential Demand (AFY)	Indoor Commercial and Industrial Demand (AFY)	Outdoor Irrigation Demand (AFY)	Outdoor Recreational Demand (AFY)	Total Water Demand (AFY)
Industrial Building Area	16.70	0.00	78.13	0.00	0.00	78.13
Access Roads/Hardscape/Parking	15.39	0.00	0.00	23.91	0.00	23.91
Landscape/Open Space/Retention Areas	4.38	0.00	0.00	11.57	0.00	11.57
Right of Way Dedication	3.07	0.00	0.00	4.77	0.00	4.77
Total	**39.54**	**0.00**	**78.13**	**40.24**	**0.00**	**118.37**

6.6 Projected Water Sources

Project domestic water supplies and associated landscape irrigation supplies will be provided from groundwater from the Mission Creek Subbasin in the Coachella Valley Groundwater Basin via Mission Springs Water District (MSWD) potable water distribution system. This source will serve all indoor and outdoor uses as shown in **Table 6-4** below.

Table 6-4: Projected Water Sources

Planning Area	Land Area (Acres)	Indoor Residential Demand	Indoor Commercial and Industrial Demand	Outdoor Irrigation Demand	Outdoor Water Feature Demand
Industrial Building Area	16.70		MSWD Domestic Water System		
Access Roads/Hardscape/Parking	15.39			MSWD Domestic Water System	
Landscape/Open Space/Retention Areas	4.38				
Right of Way Dedication	3.07				

6.7 Conservation Measures

The following section describes the water conservation measures to be implemented by the proposed Project.

6.7.1 Project Specific Water Conservation Measures

A broad range of design components and mitigation measures will be implemented to address the Project's potential impacts on water resources.

Project developers will be required to implement the following measures in order to assure the most efficient use of water resources and to meet and maintain the 2010 CVWMP Update goals throughout the life of the Project:

1. To the greatest extent practicable, native plant materials and other drought-tolerant plants shall be used in all non-turf areas of Project landscaping. Turf and other water-intensive landscaped areas shall be kept to the minimum necessary and consistent with the functional and aesthetic needs of the Project, while providing soil stability to resist erosion.

2. The landscaping and irrigation plans and irrigation system shall comply with all City ordinances and MSWD's Water Efficient Landscaping Guidelines relating to water

efficiency, and irrigation shall be an automatic system with an irrigation timer and two drop or bubbler heads per tree to produce deep root irrigation.

3. In the event recycled water becomes available to the Project, the potential use of tertiary treated water will be reviewed to determine feasibility of its use for on-site landscaped areas to reduce the use of groundwater for irrigation.

7 Availability of Sufficient Supplies

7.1 Water Supply Assessment

Based on the analysis in this Water Supply Assessment (WSA), the projected total water demand for the Palm Springs Fulfillment Center (Project) will be 118.37 acre-feet per year (AFY), or 2.99 acre-feet per acre. MSWD's long-term water management planning ensures that adequate water supplies are available to meet existing and future water needs within its service area. MSWD's urban water demand was 8,269 acre-feet (AF) for 2020, and the projected urban water demand by 2025 is 8,996 and by 2045 is 17,494 AFY. This Project's water demand of 118.37 AFY accounts for approximately 16.3 percent of the total planned increase in demand of 727 AFY by 2025 based off 2020's water demand of 8,269 and approximately 1.3 percent of the total planned increases in demand of 9,225 AFY by 2045 based off 2020's water demand.

This WSA provides an assessment of the availability of sufficient water supplies during normal, single-dry, and multiple-dry years over a 20-year projection to meet the projected demands of the Project, in addition to existing and planned future water demands of MSWD, as required by Senate Bill (SB) 610 and SB 1262. This WSA also includes identification of existing water supply entitlements, water rights, water service contracts, and agreements relevant to the identified water supply for the Project and quantities of water received in prior years pursuant to those entitlements, rights, contracts, and agreements.

This WSA has been prepared in compliance with the requirements of SB 610 and SB 1262 by MSA Consulting in consultation with MSWD and the City. This WSA does not relieve the Project from complying with all applicable state, county, city, and local ordinances or regulations including the 2009 Mission Springs Water District Water Efficient Landscaping Guidelines, and indoor water use performance standards provided in the California Water Code now or in the future.

Consistent with the provisions of SB 610, neither this WSA nor its approval shall be construed to create a right or entitlement to water service or any specific level of water service, and shall not impose, expand, or limit any duty concerning the obligation of MSWD to provide certain service to its existing customers or to any future potential customers.

This WSA does not constitute an agreement to provide water service to the Project, and does not entitle the Project, Project applicant, or any other person or entity to any right, priority, or allocation in any supply, capacity, or facility. To receive water service, the Project will be subject to an agreement with MSWD, together with any and all applicable fees, charges, plans and

specifications, conditions, and any and all other applicable MSWD requirements in place and as amended from time to time. Nor does anything in this WSA prevent or otherwise interfere with MSWD's discretionary authority to declare a water shortage emergency in accordance with the Water Code.

This WSA will be reviewed every five years, or in the event that the water planning assumptions have changed, until the Project begins construction to ensure it remains accurate and no significant changes to either the Project or available water supply has occurred. The Project applicant shall notify MSWD when construction begins.

7.2 Requirement for Written Verification of Water Supply Availability

Government Code §66473.7 requires that a Written Verification of Water Supply (WV) be prepared in connection with the approval of a development agreement or tentative map that includes a subdivision. A subdivision is defined as a proposed residential development of more than 500 units, except that for a water agency with fewer than 5,000 service connections, a subdivision includes a residential development project that would account for an increase of 10 percent or more in the number of the agency's existing service connections.

This WSA is not a WV. If the City determines that the Project or any planning area meets the definition of a subdivision and therefore requires preparation of a WV, the City must request a WV prepared by MSWD in compliance with the requirements of SB 221. This WSA may be used to support the WV. Depending on circumstances including but not limited to new water efficiency regulations or changes in water supply availability, MSWD may recommend preparation of an updated supply and demand assessment to support the WV.

8 References

American Water Works Association Research Foundation, *Commercial and Institutional End Uses of Water*, 2000

California Department of Water Resources, *Final State Water Project Delivery Capability Report 2019*, August 2020

California Department of Water Resources, *Results of the Indoor Residential Water Use Study*, November 2021

California Department of Water Resources, *State Water Project Historical Table A Allocations, Water Years 1996-2023*, April 2023

Coachella Valley Water District, Coachella Water Authority, Desert Water Agency, Indio Water Authority, Mission Springs Water District, Myoma Dunes Mutual Water Company, *2020 Coachella Valley Regional Urban Water Management Plan*, Water Systems Consulting, Inc., June 2021

Coachella Valley Water District, *2023-2024 Engineer's Report on Water Supply and Replenishment Assessment*, April 2023

Mission Springs Water District Water Efficient Landscaping Guidelines, September 2009

Mission Springs Water District website

CVWD Landscape Ordinance 1302.5, Appendix C

CVWD Landscape Ordinance 1302.5, Appendix D

Coachella Valley Water District, Coachella Water Authority, Desert Water Agency, and Indio Water Authority, *Indio Subbasin Annual Report for Water Year 2021-2022*, Todd Groundwater Inc., March 2023

Coachella Valley Water District, Coachella Water Authority, Desert Water Agency, and Indio Water Authority, *2022 Indio Subbasin Water Management Plan Update/Alternative Plan Update*, Todd Groundwater Inc., December 2021

Coachella Valley Water District, Desert Water Agency, and Mission Springs Water District, *Mission Creek Subbasin Annual Report for Water Year 2021-2022*, Wood Environment & Infrastructure Solutions Inc., February 2023

United States Bureau of Reclamation, *Colorado River Accounting and Water Use Reports for Arizona, California, and Nevada*