MISSION SPRINGS WATER DISTRICT

WATER SUPPLY ASSESSMENT / WATER SUPPLY VERIFICATION FOR THE PROPOSED 20TH AVENUE LOGISTICS CENTER

DESERT HOT SPRINGS, CA

APRIL 2025

Date Signed: 4-14-25

PREPARED FOR:
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ABBREVIATIONS

AF ..... acre-feet
AFY ..... acre-feet/year
AOB ..... areas of benefit
CEQA ..... California Environmental Quality Act
CIMIS ..... California Irrigation Management Information System
City ..... City of Desert Hot Springs
CVWD ..... Coachella Valley Water District
CWA ..... Coachella Water Authority
CWC ..... California Water Code
DMM ..... demand management measure
DWA ..... Desert Water Agency
DWR ..... Department of Water Resources
ET ..... evapotranspiration
ETWU ..... estimated total water use
GPCD ..... gallons per capita per day
GRF ..... groundwater replenishment facility
GRP ..... groundwater replenishment programs
GSA ..... Groundwater Sustainability Agency
GSP ..... Groundwater Sustainability Plan
IWA ..... Indio Water Authority
MAAWA ..... maximum annual allowed water allowance
MCGH ..... Mission Creek / Garnett Hills
MDMWC ..... Myoma Dunes Mutual Water Company
MGD ..... million gallons per day
MSWD ..... Mission Springs Water District
MT ..... Minimum Threshold
MWD ..... Metropolitan Water District of Southern California
NWRWRF ..... Nancy Wright Regional Water Reclamation Facility
PWS ..... Public Water System
RUWMP ..... Regional Urban Water Management Plan
SB ..... Senate Bill
SGMA ..... Sustainable Groundwater Management Act
SWP ..... State Water Project
UWMP ..... Urban Water Management Plan
UWMPA ..... Urban Water Management Planning Act
WSA ..... Water Supply Assessment
WSCP ..... Water Shortage Contingency Plan
WV ..... Water Supply Verification
WWR ..... Whitewater River
WY ..... water year

1 SUMMARY AND REQUIREMENTS

This Water Supply Assessment (WSA) was created to meet the rules set out in the California Water Code (CWC) Section 10910 and Senate Bills 610 and 1262. Provost & Pritchard Consulting Group worked on this report with the Mission Springs Water District (MSWD) and the City of Desert Hot Springs (City). SB 610 aims to ensure that water supply information for certain projects, including large-scale industrial projects, has been made part of the administrative record to be reviewed by decision makers assessing whether the project water supply will meet the water demands of the project.

The 20th Avenue Logistics Center ("Project") is being reviewed in compliance with the California Environmental Quality Act (CEQA) process. The City of Desert Hot Springs is the Lead Agency for land use entitlements and for the Project's Environmental Impact Report (EIR) which is required by CEQA. The City has identified the Mission Springs Water District (MSWD) as the Public Water System (PWS) that will supply water services 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 Mission Springs Water District, south of 19th Ave, north of 20th Ave, and West of Calle De Los Romos in the southern part of Desert Hot Springs, Riverside County. It covers one Parcel Number 666-370-019.

The Project will develop approximately 52.72 net acres (54.5 gross acres) of empty land into one large warehouse building covering 1,062,165 square feet. The buildings will include office spaces, truck docking areas, and parking for employees.

This Water Supply Assessment (WSA) found that the Project will need 54.7 acre-feet of water per year (AFY), or about 1.17 acre-feet (AF) per acre. This means that based on current water planning estimates, there will be enough water to meet this demand. The WSA also shows that MSWD's published water supply estimates are adequate for the Project's needs, along with the existing and future demands in the district's service area, even in normal, single-dry, and multiple-dry years for the next twenty years.

This WSA will be updated every five years, or sooner if there are changes in water planning assumptions, to ensure it stays accurate. If construction hasn't started yet, these updates will help ensure no significant changes affect the Project's water needs or the district's available water supply. According to SB 610, this WSA, and its approval, don't give any guaranteed right to water service or a specific level of service. It also doesn't create or change MSWD's responsibilities to provide water to its current or future customers.

This WSA does not mean that the Project is guaranteed water service. It does not give the Project, the Project Applicant, or anyone else a right to water, nor does it ensure any priority or allocation of water supply, capacity, or facilities. To obtain water service, the Project will need to enter into an agreement with the MSWD. This agreement will also require payment of any fees or charges, submission of plans and specifications, and compliance with any other requirements MSWD has in place.

Moreover, nothing in this WSA limits or interferes with MSWD's authority to declare a water shortage emergency as outlined by the California Water Code (CWC). If such an emergency occurs, MSWD has the discretion to take the necessary steps to manage water supplies.

1.1 REGULATORY REQUIREMENTS

The Sustainable Groundwater Management Act (SGMA) provides legislative guidance for water supply planning for CEQA development projects. SGMA sets statewide rules for managing groundwater sustainably, as outlined in California Water Code Section 10910 (also known as SB 610 or the Water Supply Assessment statute) and California Government Code Section 66473.7 (commonly called SB 211 or the Written Verification Statute).

The City of Desert Hot Springs has determined that the Project is subject to review under CEQA (Public Resources Code, § 21000), following the state CEQA Guidelines (California Code of Regulations, § 15000). Because the Project is over 650,000 square feet of industrial space, it meets the definition of a "project" under CWC 10912, requiring the preparation of this WSA. The WSA evaluates whether there will be enough water for the Project over the next 20 years during normal, single-dry, and multiple-dry years, as required by SB 610 and SB 1262. It also reviews existing water supply agreements, water rights, contracts, and other arrangements that are related to providing water to the Project.

The Project must comply with all applicable state, county, city, and local laws, including landscaping and indoor water use rules in the California Water Code. The WSA's goal is to review water planning assumptions every five years to ensure they're still accurate and no significant changes to the Project or water supply have occurred. The Project applicant must inform the Mission Springs Water District (MSWD) when construction begins.

1.1.1 SENATE BILL 610

Senate Bill 610 (SB 610) was amended and put into effect on January 1, 2002. This law applies to development projects that are subject to the California Environmental Quality Act (CEQA) and are considered a "project" under California Water Code (CWC) Section 10912. The purpose of SB 610 is to encourage local water suppliers, cities, and counties to work together by providing decision-makers with detailed information about water availability before they approve large development projects.

SB 610 requires a Water Supply Assessment (WSA) to determine if the total projected water supplies (Public Water Systems or PWSs), available during normal, single-dry, and multiple-dry years over a 20-year period, will meet the Project's projected water demand. The WSA should also consider current and planned future water uses.

Under CWC Section 10912, certain categories of projects require a WSA. Below is a list of those categories with a checkmark ("✓") indicating the one that applies to the 20th Avenue Logistics Center:

- ☐ *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 AFY).*

1.1.2 SENATE BILL 1262

On January 1, 2017, Senate Bill 1262 (SB 1262) was enacted, updating California Water Code (CWC) Section 10910. This Bill mandates that projects provide an assessment to identify the sources of their water supply. If a project lacks sufficient water supply, the relevant local agencies must outline how they plan to acquire additional water resources. When a proposed project relies on groundwater from a basin managed by a local public agency or Groundwater Sustainability Agencies (GSAs), the Water Supply Assessment (WSA) must include information from the Sustainable Groundwater Management Act (SGMA).

SGMA requires that all non-adjudicated groundwater basins classified as medium- or high-priority by the California Department of Water Resources (DWR) be managed under a Groundwater Sustainability Plan (GSP). These GSPs are designed to ensure the sustainable use of groundwater resources over the long term.

Therefore, when a WSA is prepared for a project using groundwater, it must consider the local groundwater sustainability plan, if applicable. It must address the project's impact on the groundwater basin and ensure that water use aligns with the sustainability goals set by the SGMA. This ensures that development projects are compatible with the long-term management of groundwater resources and meet state requirements for water supply planning.

1.2 WATER MANAGEMENT PLANNING DOCUMENTS

MSWD contributed to creating the 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP). This plan helps protect future water use and manage water supplies within MSWD's service area. The First Palm Springs Commerce Center Project falls within this assessed area.

The RUWMP serves as a key resource for understanding water management in the region, and it can be used to determine the Project's compliance with Senate Bills 610 and 1262, as explained in detail within this WSA. By aligning with the RUWMP, the Project can ensure that its water demands are consistent with broader regional planning and sustainability efforts, meeting the state's requirements for water supply and management.

1.2.1 URBAN WATER MANAGEMENT PLANNING ACT

The Urban Water Management Planning Act (UWMPA) became part of the California Water Code (CWC) with the passage of Assembly Bill 797 (AB 797) on September 21, 1983. The UWMPA acknowledges that the state's water resources are limited and face increasing demand, emphasizing the importance of conservation and efficient water usage as matters of statewide concern. The legislation also recognizes that effective water planning and management are best carried out at the local level as part of long-term planning to ensure adequate water supplies for both current and future needs.

The UWMPA mandates that municipal water suppliers prepare and adopt an Urban Water Management Plan (UWMP) to support conservation efforts, promote efficient water use, and improve local drought resilience. Current provisions require that UWMPs include:

- *Information on past, current, and projected water supplies and demands.*
- *Strategies for meeting water needs, including ongoing and planned water conservation measures.*
- *A water shortage contingency plan.*
- *Information on the availability and potential use of recycled water.*

- *An assessment of water supply reliability over a 20-year period, including during normal water years, single-dry years, and droughts lasting five consecutive years.*

Municipal water suppliers that serve more than 3,000 customers or supply more than 3,000 AFY must prepare and adopt a UWMP with projections for water usage over the next 20 years in five-year increments, considering different water scenarios. This helps ensure that water planning is comprehensive and resilient, providing a roadmap for sustainable water management at the local level. The UWMP must be submitted to the California DWR, who reviews them for consistency with statutory requirements in order to verify that the urban water supplier is eligible for grants from the State.

1.2.1.1 COACHELLA VALLEY REGIONAL URBAN WATER MANAGEMENT PLAN

The 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP) was submitted to DWR on July 1, 2021. The RUWMP was prepared on behalf of six urban water suppliers that serve customers in the Coachella Valley (Coachella Valley Water District [CVWD], Coachella Water Authority [CWA], Desert Water Agency [DWA], Indio Water Authority [IWA], MSWD, and Myoma Dunes Mutual Water Company [MDMWC]).

The report was prepared to reflect the agencies' collaborative efforts in managing shared water resources (demand projections, characterization of shared supplies, and planning for potential water shortages), while still allowing each agency to meet its individual requirements.

1.2.2 SUSTAINABLE GROUNDWATER MANAGEMENT ACT

AB 1739, SB 1168, and SB 1319 were signed into law by Governor Brown in September 2014. The SGMA creates a statewide framework empowering local agencies to safeguard and manage groundwater resources to prevent over-pumping or contamination. Groundwater, which is stored underground in layers of soil, sand, and rock called aquifers, makes up a significant portion of California's water supply.

Under the SGMA, local agencies must form Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement groundwater sustainability plans. These plans detail how water will be used and managed without causing undesirable effects, such as significant and unreasonable declines in groundwater levels, reductions in groundwater storage, seawater intrusion, water quality degradation, land subsidence, or depletion of interconnected surface waters.

According to the California Department of Water Resources (DWR), the Coachella Valley consists of four subbasins: Indio, Mission Creek, Desert Hot Springs, and San Gorgonio Pass, identified in DWR Bulletin 118. DWR assessed and prioritized 515 groundwater basins in Bulletin 118, with 94 designated as high- or medium-priority basins as of December 2019. These basins must be sustainably managed within 20 years.

Three water agencies operate within the Mission Creek Subbasin: MSWD, CVWD, and Desert Water Agency (DWA). The 20th Avenue Logistics Center is within the MSWD service area, covering about 325 square miles, including parts of Desert Hot Springs. As of 2020, the MSWD had 12,783 municipal connections, supplying about 8,103 AFY. MSWD provides water services across 135 square miles, serving over 13,500 retail water customers.

1.2.2.1 ALTERNATIVE PLAN FOR THE MISSION CREEK SUBBASIN

The Mission Creek Subbasin is one of the largest groundwater subbasins in the Coachella Valley Groundwater Basin, alongside the San Gorgonio Pass, Indio, and Desert Hot Springs Subbasins. In 2004, the Mission Creek Settlement Agreement led to the formation of the Management Committee, consisting of representatives from MSWD, DWA, and CVWD. This committee collaborated to create the 2013

Mission Creek/Garnet Hill Subbasin Water Management Plan (2013 MC/GH WMP), designed to outline current water management strategies, evaluate new approaches, and recommend additional programs to ensure sustainable and protected water resources.

On December 29, 2016, MSWD, DWA, and CVWD submitted the 2013 MC/GH WMP, along with supporting documents and a Bridge Document, to the California Department of Water Resources (DWR) as an Alternative Plan for the Mission Creek Subbasin, for review under the SGMA. DWR approved this plan on July 17, 2019, indicating that it met the objectives of the SGMA. The Alternative Plan obviates the need for a GSA for the Subbasin. Following this approval, the Management Committee must submit an assessment and update of the Alternative Plan every five years, with the first due by January 1, 2022.

The 2022 Alternative Plan Update for the Mission Creek Subbasin was submitted to DWR on December 30, 2021. Additionally, on February 1, 2018, DWR informed all GSAs with approved Alternative Plans that they must submit annual reports by April 1 of each year. MSWD, DWA, and CVWD have been collaboratively preparing and submitting these annual reports for the Mission Creek Subbasin, covering water years from 2016-2017 through 2021-2022. These reports track progress toward groundwater sustainability and provide updates on water use, replenishment, and other key metrics to ensure compliance with the SGMA and sustainable management of the subbasin.

1.2.3 GROUNDWATER REPLENISHMENT

California is accelerating efforts to manage groundwater through recharge initiatives, particularly in response to climate-driven weather patterns. Groundwater recharge is a key element of sustainable groundwater management, allowing basins to be replenished and pumped without causing significant declines in groundwater levels. Recharge can be achieved through various sources, such as surface water, stormwater runoff, recycled water, and remediated groundwater.

Under California Water Code Section 10729(c), the SGMA requires the DWR to assist local agencies in estimating the amount of water available for replenishment. Managed aquifer recharge (MAR), also known as water banking, refers to techniques that store water for later use, especially in dry years when surface water supplies might be low.

In addition, Chapter 7 of the California Water Code provides the CVWD (and DWA) with the authority to levy and collect water replenishment assessments to fund groundwater replenishment programs (GRPs) within its jurisdiction. These GRPs help to counteract the overdraft of groundwater basins and mitigate related negative outcomes. The legislation mandates that CVWD submit an annual underground engineering survey and report by May 1, detailing the current groundwater condition, the need for replenishment, and recommendations for future actions.

CVWD has three designated Areas of Benefit (AOBs) where it levies replenishment assessments on groundwater production: the Mission Creek Subbasin AOB, the West Whitewater River Subbasin AOB, and the East Whitewater River Subbasin AOB. The West Whitewater River Subbasin AOB GRP began in 1976, the Mission Creek Subbasin AOB GRP in 2003, and the East Whitewater River Subbasin AOB GRP in 2004. The Project is located within the Mission Creek Subbasin AOB, which benefits from the groundwater replenishment programs.

These replenishment efforts, alongside the broader recharge initiatives, contribute to a sustainable approach to managing California's groundwater resources, offering a safety net during periods of reduced surface water supply. The water supplies used for these replenishment efforts are described in Section 3.2 and 3.3

2 PUBLIC WATER SYSTEM

The City of Desert Hot Springs is the Lead Agency for the planning and environmental review of the proposed 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 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, as outlined in the CWC. It began as a mutual water company in the late 1940s. By 1953, it had transitioned into an incorporated entity, the Desert Hot Springs County Water District, and later changed its name to MSWD in 1987. MSWD is managed by a five-member board, with each member elected from five separate divisions for a four-year term.

MSWD serves over 13,500 retail water customers through three separate production and distribution systems, and it provides wastewater services to more than 9,200 customers through two independent wastewater collection and treatment systems. Refer to Figure 2-1 for a map showing the boundaries of MSWD and the location of the proposed project. The MSWD service area spans approximately 135 square miles, including the City of Desert Hot Springs, part of the City of Palm Springs, and ten smaller communities in Riverside County, such as North Palm Springs, West Palm Springs Village, and Palm Springs Crest as shown in

The 2020 RUMWP 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 RUWMP

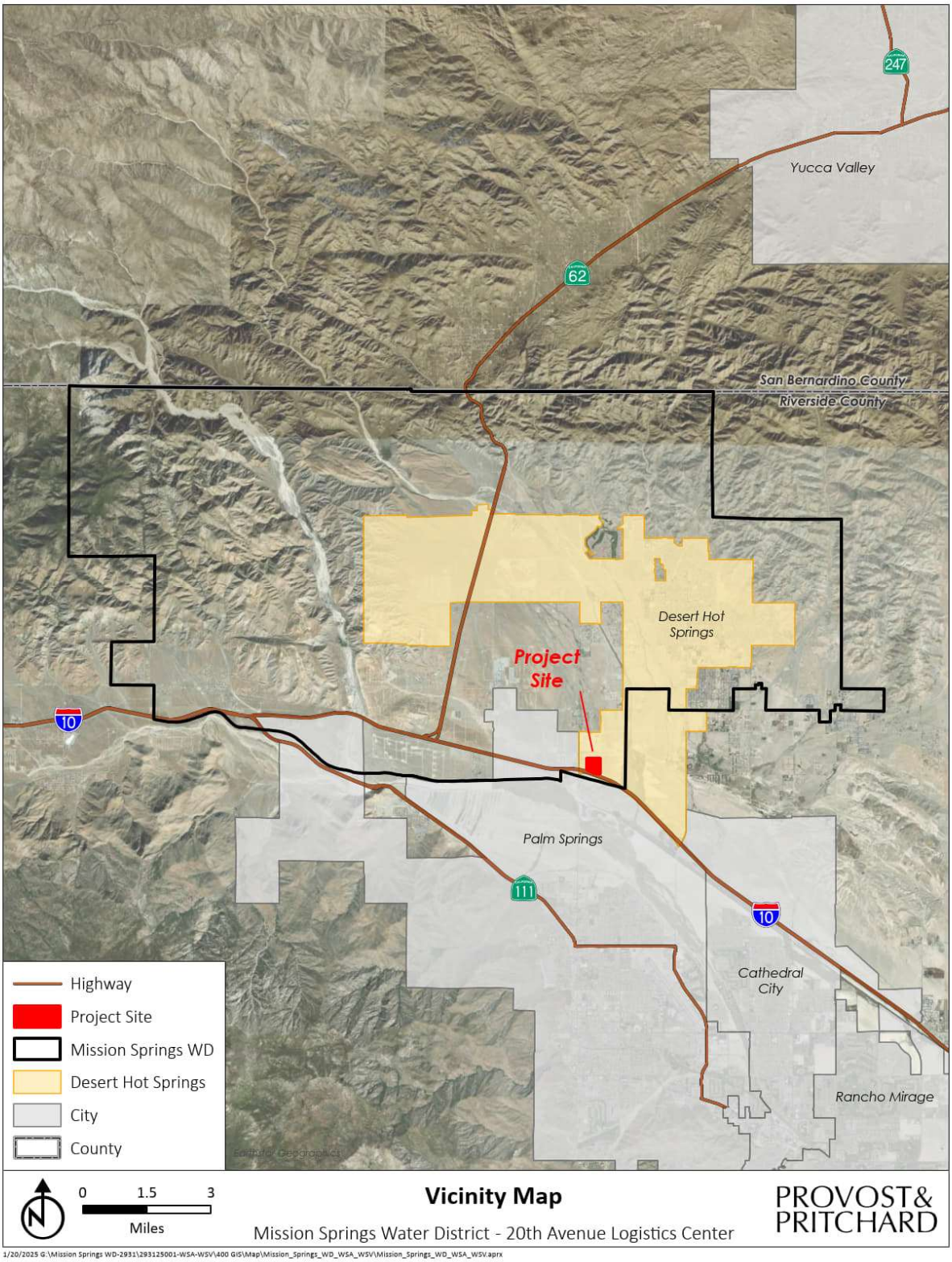


Figure 2-1: Vicinity Map

2.2 COACHELLA VALLEY HYDROLOGY

Most of the natural groundwater replenishment in the Coachella Valley comes from runoff from the nearby mountains. The region's climate features low humidity, high summer temperatures, and mild, dry winters. The average annual rainfall varies significantly, with the Coachella Valley floor receiving between 3 to 6 inches of rain, while the surrounding mountains can get over 30 inches annually. Most of the rainfall occurs between December and February, with occasional summer thunderstorms.

The prevailing winds are typically gentle, though they can sometimes reach speeds of 30 miles per hour or more. During midsummer, temperatures frequently exceed 100 degrees Fahrenheit (°F), often reaching 110°F and sometimes topping 120°F. The average winter temperature is around 60°F as shown in Table 2-2 and Table 2-3. This climate pattern impacts the groundwater replenishment rates and affects how water resources are managed in the region.

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 RUWMP
[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	92	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 RUWMP
[1] National Weather Service Forecast, Station Palm Springs Airport, 1998-2020
[2] CIMIS Station 218 – Thermal South, 2010-2020

3 WATER SUPPLIES

Groundwater is the primary, and virtually the only, source of potable water in the Coachella Valley, including the MSWD service areas. MSWD relies entirely on groundwater production for its water supply and does not purchase imported water from a water wholesaler. However, CVWD and DWA are addressing the overdraft condition in the Upper Coachella Valley by replenishing groundwater basins with Colorado River water and State Water Project (SWP) exchange water from the Metropolitan Water District of Southern California (MWD).

CVWD has the legal authority to manage the Coachella Valley 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). This role allows CVWD to coordinate efforts to ensure groundwater sustainability and take steps to mitigate overdraft through replenishment programs. These initiatives are crucial in maintaining a sustainable water supply for the Coachella Valley, given the region's reliance on groundwater.

3.1 COACHELLA VALLEY GROUNDWATER BASIN

The Coachella Valley Groundwater Basin is bordered by significant geographic features. To the north and east, it is bounded by the San Bernardino and Little San Bernardino Mountains, while the Santa Rosa and San Jacinto Mountains define the south and west edges. The Salton Sea forms the southernmost boundary. At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin is separated from the Beaumont Groundwater Basin by a surface drainage divide, marking the boundary of the Upper Santa Ana Drainage Area.

The southern boundary is primarily defined by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea, which runs between the Santa Rosa Mountains and Mortmar. Beyond the Salton Sea, the boundary extends between Travertine Rock, at the base of the Santa Rosa Mountains, and crosses into Imperial and San Diego Counties.

Despite interflow of groundwater throughout the Coachella Valley Groundwater Basin, movement can be restricted by natural barriers such as faults, constrictions in the basin's profile, and areas with low permeability. These factors control the groundwater's movement and lead to the division of the Coachella Valley Groundwater Basin into subbasins and subareas, as described by the California Department of Water Resources (DWR) in 1964 and 2003, and by the United States Geological Survey (USGS) in 1974. These divisions help guide sustainable groundwater management and planning, ensuring that the unique characteristics of each subbasin are addressed appropriately.

3.1.1 COACHELLA VALLEY GROUNDWATER BASIN – SUBBASINS

As shown on Figure 3-1, which outlines the Coachella Valley Groundwater Basin and its subbasins, the major subbasins within the Coachella Valley Groundwater Basin are Indio, Mission Creek, San Gorgonio Pass, and Desert Hot Springs. These subbasins are defined without considering water quantity or quality; instead, they mark areas where geological formations readily yield groundwater through wells.

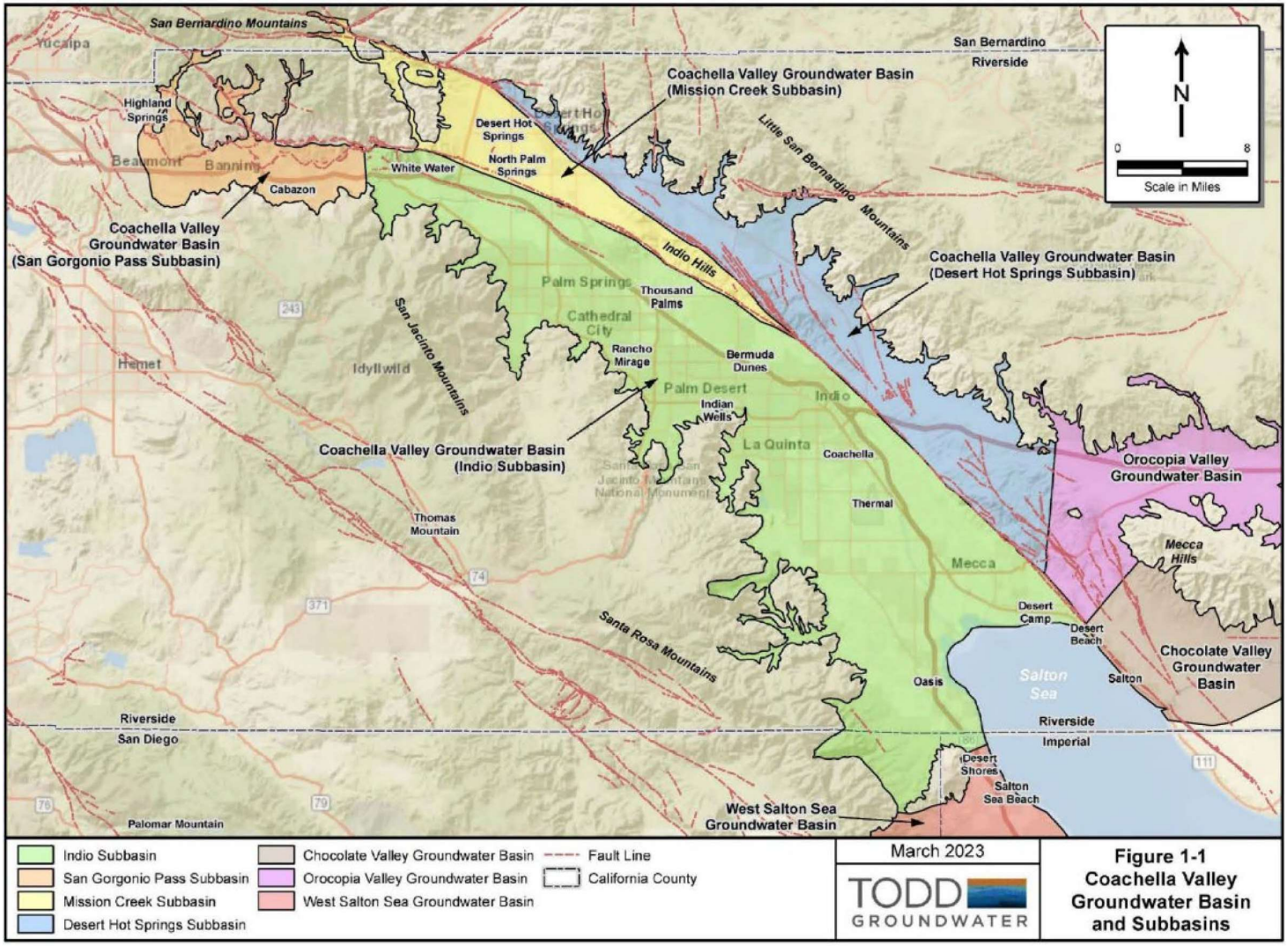
The boundaries between subbasins are typically defined by faults that restrict the lateral movement of groundwater. These natural barriers create distinct subbasins with unique geological and hydrological characteristics. Additionally, smaller subareas within the Coachella Valley Groundwater Basin have been delineated based on specific geological or hydrologic factors, such as the types of water-bearing formations, water quality, areas of confined groundwater, forebay areas, groundwater divides, and surface drainage divides.

These subdivisions are crucial for understanding the Coachella Valley Groundwater Basin's complex structure, allowing for more effective groundwater management and sustainability planning. By recognizing the unique characteristics of each subbasin and subarea, stakeholders can tailor groundwater management strategies to address local needs and challenges.

The following is a list of the subbasins in the Coachella Valley Groundwater Basin as designated by DWR in Bulletin 118 (2020 Update):

- *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)*

In the 2020 Update of Bulletin 118, 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. However, as noted above, the Mission Creek Subbasin does have an approved Alternative Plan which serves as a groundwater management plan for the Subbasin.



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

Figure 3-1: Coachella Valley Groundwater Basin and Subbasins

3.1.2 GROUNDWATER DEMAND

Groundwater is the primary source of potable supply in the Coachella Valley and MSWD obtains groundwater from the Mission Creek Subbasin, San Gorgonio Pass Subbasin, 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 Figure 3-1. The data in Table 3-1 is from the 2020 RUWMP and therefore is five years old. New demand data will be published in the 2025 RUWMP and will likely be published in early 2026. According to the 2020 RUWMP, MSWD's total water demands are projected to increase by 8.8% between 2020 and 2025, from 8,268 AF in 2020 to 8,996 AF in 2025, and 9,754 AF in 2030, an increase of an additional 8.4%.

Table 3-1: 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 in groundwater management is typically evaluated by examining changes in groundwater storage over a period of ten to twenty years, which encompasses both wet and dry periods.

3.1.3.1 MISSION CREEK SUBBASIN

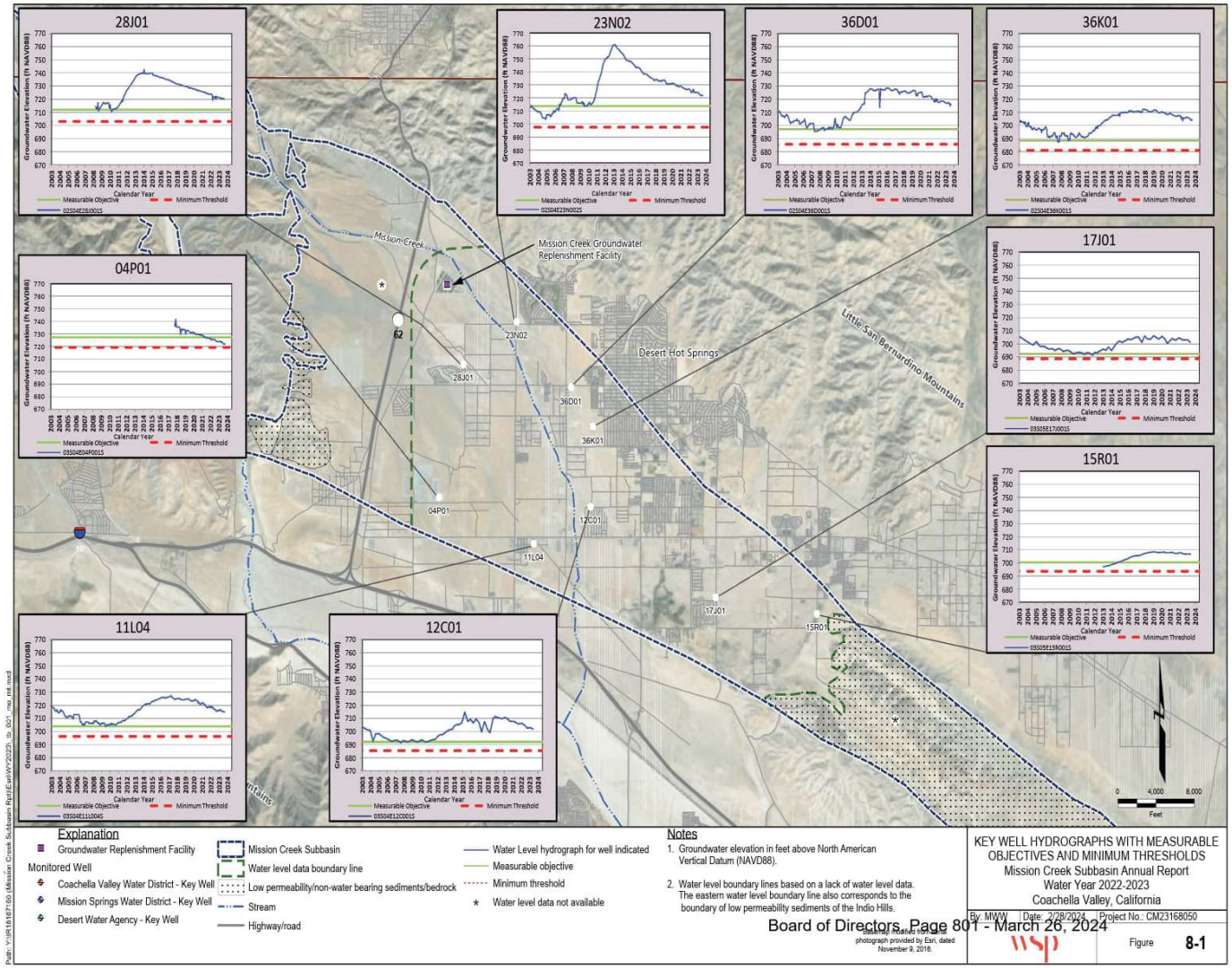
The Mission Creek Subbasin is the primary water supply for MSWD, as shown in Table 3-1, supplying approximately 95% of the water to MSWD's customers. The 2022 Mission Creek Subbasin Alternative Plan Update identified nine Key Wells across the subbasin to monitor local groundwater levels, as illustrated in Figure 3-2, which displays the Water Level Monitoring Wells in the Mission Creek Subbasin. Each Key Well has a set minimum threshold (MT) to indicate groundwater sustainability. In Water Year (WY) 2022-2023, water levels in all nine Key Wells remained above their respective MTs, as depicted in the hydrographs within
Figure 3-2. This demonstrates that the Mission Creek Subbasin has not experienced significant undesirable results like chronic lowering of groundwater levels, depletion of groundwater storage, or potential subsidence.

Figure 3-3 shows annual changes in groundwater storage from 1978 through WY 2022-2023, along with annual inflows, outflows, groundwater production, and the 10-year and 20-year running-average changes in storage. During periods of high artificial recharge, the change in storage tends to be positive, whereas dry years or times of high groundwater pumping can lead to negative changes in storage.

Figure 3-3 indicates that both the 10-year and 20-year running-average changes in groundwater storage have shown positive trends since 2004, reflecting an overall improvement in the subbasin's groundwater storage balance. The 20-year running-average change in storage reveals that the Mission Creek Subbasin has been in balance since 2012.

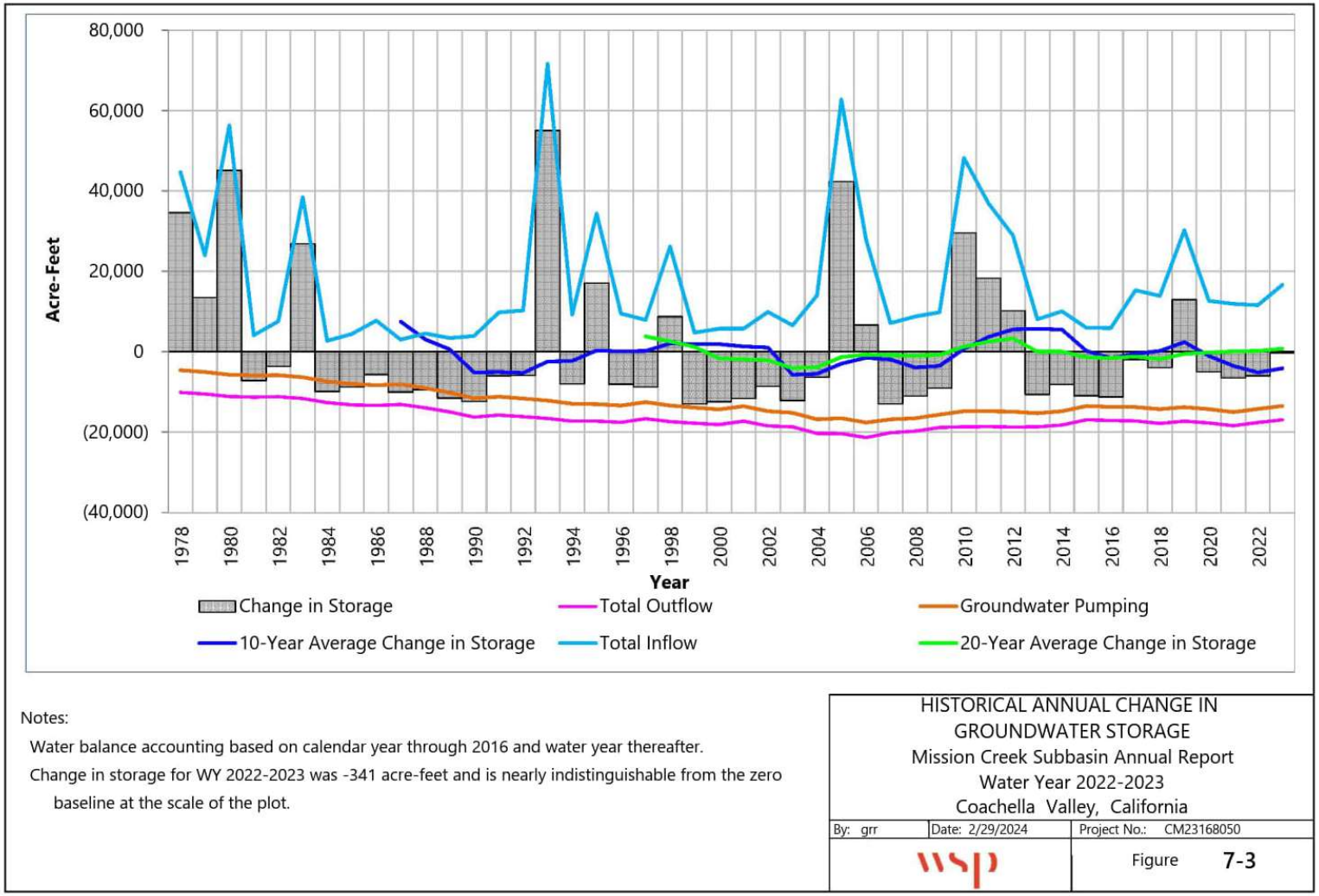
Moreover, Figure 3-4 indicates that groundwater levels have risen significantly in the Mission Creek Subbasin over the past decade. The Mission Creek Subbasin Annual Report uses 2009 as a baseline year to measure sustainability, considering that historical low groundwater levels occurred around that time. Given these improvements, the Mission Creek Subbasin shows a long-term positive trend in groundwater

sustainability, due in part to the successful implementation of the Mission Creek Subbasin Alternative Plan.



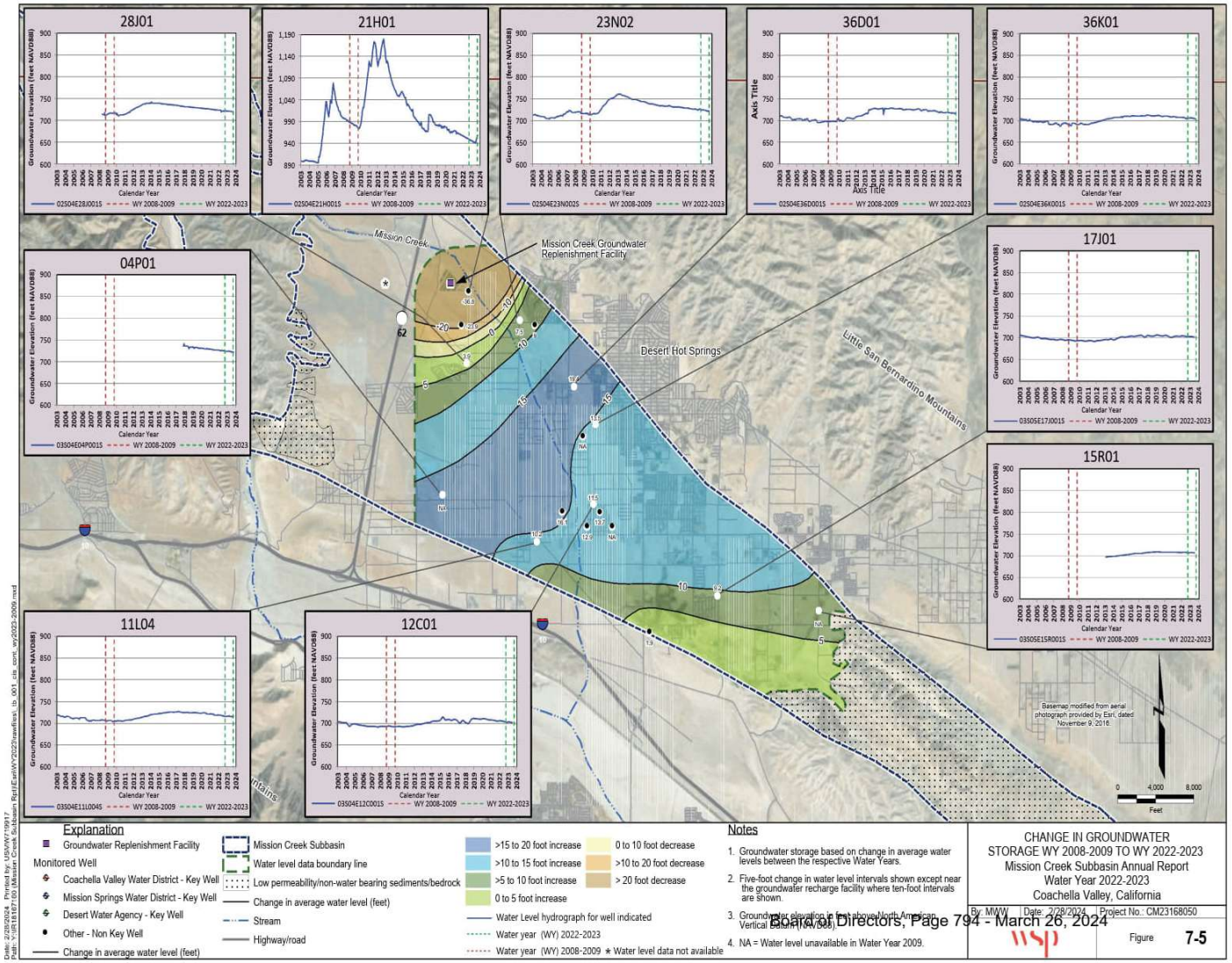
Source: Mission Creek Subbasin Annual Report for Water Year 2022-2023

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



Source: Mission Creek Subbasin Annual Report for the Water Year 2022-2023

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



Source: Mission Creek Subbasin Annual Report for Water Year 2022-2023

Figure 3-4: Change in the Groundwater Elevation from WY 2009-2023 in the Mission Creek Subbasin

3.2 IMPORTED WATER

MSWD currently sources all its water from groundwater production and does not purchase imported water from wholesalers. However, CVWD and DWA are addressing groundwater overdraft in the Upper Coachella Valley by replenishing the Coachella Valley Groundwater Basin (Basin) with imported water from the Colorado River and State Water Project (SWP) Exchange, obtained through the Metropolitan Water District of Southern California (MWD). MSWD does pay a replenishment fee to DWA for imported Colorado River water used to replenish the Mission Creek Subbasin.

These imported water sources are crucial for maintaining groundwater levels and serve as an alternative supply for non-potable uses including agricultural irrigation, golf courses, and urban landscaping. By providing this additional source of water, the reliance on pumping groundwater is reduced, contributing to the sustainable management of the Basin. This strategy helps to balance the Basin's water demands and mitigates the risk of overdraft, thus supporting the long-term sustainability of local water resources.

3.2.1 COLORADO RIVER WATER

The Colorado River has been a vital source of water for the Indio Subbasin since the completion of the Coachella Canal in 1949, and more recently for the Mission Creek Subbasin. Through the groundwater replenishment programs of the Coachella Valley Water District (CVWD) and Desert Water Agency (DWA), billions of gallons of water have been percolated into the Basin. This significant replenishment effort has been made possible by imported water supplies from the State Water Project (SWP) and the Colorado River, along with long-term water rights to stream flows in the Whitewater River and its tributaries.

Table 3-2: CVWD Colorado River Entitlements (AFY) provides a summary of total Colorado River entitlements under existing agreements, highlighting the secured water supplies that support groundwater replenishment and other water demands in the Coachella Valley, including the MSWD service area. These entitlements ensure that local agencies have reliable access to Colorado River water, which is crucial for sustaining the groundwater Basin and meeting the region's various water needs. By leveraging these entitlements and coordinating replenishment programs, CVWD and DWA can help maintain a stable and sustainable water supply for the Coachella Valley.

Table 3-2: CVWD Colorado River Entitlements (AFY)

Diversion	2025	2030	2035	2040	2045	2050
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]	48,000	53,000	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	**419,000**	**424,000**	**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	**454,000**	**459,000**	**459,000**	**459,000**	**459,000**	**459,000**
Assumed Conveyance Losses (5%)	-22,700	-22,950	-22,950	-22,950	-22,950	-22,950
MWD/IID Approval Agreement Transfer[3]	-5,000	0	0	0	0	0
Total Available Deliveries	**426,300**	**436,050**	**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.
[3] 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 2019 through 2023 are shown in Table 3-3.

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

Diversions (AF)	2019	2020	2021[1]	2022[1]	2023[1]
Imperial Dam / Coachella Canal	343,971	350,618	351,904	330,387	342,398

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 2019 through 2023 are shown in Table 3-4.

Table 3-4: CVWD Groundwater Recharge of Colorado River Water

Diversions (AF)	2019	2020	2021[1]	2022	2023
Thomas E. Levy GRF	36,143	37,536	37,971	27,993	2,076
Palm Desert GRF	7,757	9,700	10,633	10,949	11,179
Total	**43,900**	**47,236**	**48,604**	**38,942**	**13,255**

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

3.2.2 STATE WATER PROJECT

The SWP, managed by DWR, encompasses 705 miles of aqueducts and conveyance systems stretching from Lake Oroville in Northern California to Lake Perris in Southern California. The SWP has contracts to deliver 4.172 million AFY to its 29 public entity contractors, known as the State Water Contractors.

In 1962 and 1963, DWA and CVWD entered into contracts with the State of California to receive a total of 61,200 AFY of SWP water. SWP water has played a significant role in the Coachella Valley's water supply mix since CVWD and DWA started receiving and recharging SWP exchange water at the Whitewater River Groundwater Replenishment Facility (WWR-GRF). Since 1973, CVWD and DWA have exchanged their SWP water with MWD for Colorado River water delivered through MWD's Colorado River Aqueduct. As CVWD and DWA do not have a direct connection to SWP conveyance facilities, MWD delivers CVWD's and DWA's SWP water and, in exchange, sends an equivalent volume of Colorado River water to the Whitewater Service Connections, used for recharge at WWR-GRF and the Mission Creek Groundwater Replenishment Facility.

The exchange agreement was most recently reestablished in the 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water. Each SWP contract has a "Table A" exhibit, which outlines the maximum annual amount of water each contractor can receive, excluding certain interruptible deliveries. DWR uses Table A amounts to allocate available SWP supplies among contractors and to distribute SWP project costs. Each year, DWR determines the amount of water available for SWP contractors based on factors such as hydrology, reservoir storage, 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 contractor's Table A amount.

Initially, CVWD and DWA had combined Table A allocations of 61,200 AFY. However, with additional water transfers and purchases, their total SWP Table A allocation now stands at 194,100 AFY. These additional allocations were acquired through various agreements, including a 100,000 AFY transfer from MWD under the 2003 Exchange Agreement, and purchases from the Tulare Lake Basin Water Storage District in Kings County, and the Berrenda Mesa Water District in Kern County. Table 3-5 details the combined Table A allocations for CVWD and DWA.

Table 3-6 and Table 3-7 provide further information on the percent allocation of SWP Table A allocations and the recharge of SWP Exchange Water from 2018 through 2022, respectively. These tables illustrate the distribution of SWP water among contractors and the replenishment rates, reflecting the role of SWP in supporting groundwater sustainability in the Coachella Valley.

Table 3-5: State Water Project Table A Allocations

	Original SWP Table A (AFY)	Tulare Lake Basin 2004 Transfer # 1	MWD Transfer (AFY)	Tulare Lake Basin 2004 Transfer #2	Original SWP Table A (AFY)	Total
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 RUWMP

Table 3-6: State Water Project Table A Percent Allocations

	2020	2021	2022	2023	2024
Table A Allocation	20%	5%	5%	100%	40%

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

Table 3-7: CVWD and DWA Groundwater Recharge

Groundwater Recharge (AF)	2019	2020	2021	2022	2023
Whitewater River GRF	235,600	126,487	15,006	15,011	19,745
Mission Creek GRF	3,688	1,768	0	0	5,275
Total	**239,288**	**128,255**	**15,006**	**15,011**	**25,020**

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 STATE WATER PROJECT 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.

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 in the Coachella Valley come from several local rivers and streams, including the Whitewater River, Snow Creek, Falls Creek, Chino Creek, and several smaller creeks and washes. These surface water sources can vary greatly from year to year due to fluctuations in annual precipitation. The 50-year hydrologic period from 1970 to 2019 had an annual average of 52,506 AFY in watershed runoff, with approximately 43,300 AFY naturally infiltrating into the groundwater basin.

However, the 25-year period from 1995 to 2019 saw lower-than-average runoff, with 39,196 AFY in watershed runoff and 29,200 AFY in natural infiltration. This demonstrates the natural variability in surface water supplies due to climatic conditions.

Although these surface water supplies are important for groundwater recharge, MSWD does not currently use, nor does it plan to use, local surface water for its urban potable water supply. Instead, local runoff is typically captured and used for groundwater recharge, contributing to the sustainable management of groundwater resources in the region. By allowing natural infiltration and facilitating groundwater replenishment, the district helps maintain a balance between surface water and groundwater supplies.

3.3.2 STORMWATER CAPTURE

The Coachella Valley drainage area is a mix of mountainous terrain (approximately 65 percent) and typical desert valley with alluvial fan topography (approximately 35 percent), which buffers the valley floor from steep mountain slopes. The mean annual precipitation varies significantly, ranging from over 30 inches in the San Bernardino Mountains to less than 3 inches near the Salton Sea. The area experiences three types of storms that produce precipitation: general winter storms, general thunderstorms, and localized thunderstorms. Longer duration, lower intensity rainfall events typically lead to higher groundwater recharge, while flash flooding can result from all three storm types. Otherwise, there is usually little to no flow in most streams in the area.

The CVWD has set up systems to capture significant amounts of local runoff at the WWGRF, the Mission Creek GRF, and in debris basins and unlined channels throughout the western Coachella Valley. Additional stormwater will be captured upon completion of the Thousand Palms Flood Control Project, and once flood control is built in the Oasis area.

However, limited data is available to estimate how much additional stormwater could be captured with new facilities in the Coachella Valley. Additionally, large-scale stormwater capture projects are generally not expected to yield enough water to justify the investment on their own. In contrast, small-scale stormwater retention systems, located in geologically suitable areas to allow percolation, could potentially capture smaller intensity storms and street runoff. The exact potential yield of these systems is not well understood at this time, but stormwater capture should be considered in conjunction with projects that build stormwater and flood control infrastructure.

Considering these factors, while large-scale stormwater capture might not be cost-effective as a stand-alone project, small-scale systems and integration with existing and future flood control projects offer a more viable path for capturing stormwater and contributing to groundwater recharge in the Coachella Valley.

3.4 WASTEWATER AND RECYCLED WATER

Highly treated and disinfected wastewater, also known as recycled water, can be reused for various purposes such as landscape irrigation. In the Coachella Valley, recycled water has been used for irrigating golf courses and municipal landscaping since the 1960s. As the region continues to grow, particularly in the eastern Coachella Valley, the availability of recycled water is expected to increase, providing additional opportunities to expand local water supply resources.

MSWD operates two wastewater treatment plants. The Horton Wastewater Treatment Plant (Horton WWTP), located on Verbena Drive about half a mile south of Two Bunch Palms Trail, has a treatment capacity of 2.3 million gallons per day (MGD). The plant uses an extended aeration process for wastewater treatment and disposes of secondary wastewater, which is not disinfected, in nearby percolation/evaporation ponds. Sludge generated during treatment is processed using a dewatering sludge filter press and then transported offsite for disposal. The average daily flow into Horton WWTP in 2020 was approximately 2.0 MGD.

The Desert Crest Wastewater Treatment Plant, located about half a mile southeast of the intersection of Dillon Road and Long Canyon Road, has a smaller capacity of 0.18 MGD, serving a country club development and a mobile home park. It operates similarly to Horton WWTP, using aeration for treatment and disposing of non-disinfected secondary wastewater into percolation/evaporation ponds. The sludge is dried in on-site beds and then trucked offsite for disposal. The average daily flow at this plant in 2020 was about 0.05 MGD.

Both treatment plants use an extended aeration process and dispose of non-disinfected secondary wastewater in ponds on the southwest (potable water) side of the Mission Creek Fault. Additionally, some effluent is used for irrigation and maintenance at the treatment plants.

MSWD is also constructing the Nancy Wright Regional Water Reclamation Facility (NWRWRF) to meet growing wastewater demands. This new facility will initially use a sequence batch reactor process to treat wastewater, with disposal into adjacent percolation/evaporation ponds in the Garnet Hill Subarea. In a later phase, the District plans to implement tertiary treatment facilities to produce recycled water meeting Title 22 standards. This recycled water can then be used for replenishing the Mission Creek Subbasin and irrigating public green areas, golf courses, and playing fields.

The recycled water system, including the NWRWRF, is anticipated to expand to meet a demand of 5,000 AFY by 2045, based on recycled water demands and projected system wastewater flows. This strategic expansion of recycled water use will support sustainable water management in the Coachella Valley.

3.5 CONSERVATION

Water conservation, along with the resulting reduction in groundwater production, is essential for the sustainability of the groundwater basin. It plays a significant role in the Alternative Plans and the 2020 Regional Urban Water Management Plan (RUWMP). The RUWMP is designed to help six agencies meet Urban Water Management Plan (UWMP) requirements, originating from California's Urban Water Management Planning Act of 1983. These requirements have since evolved with additional legislation, requiring agencies to update their UWMP every five years and submit it to the California Department of Water Resources (DWR), which reviews the plans to ensure compliance with the California Water Code (CWC).

Water conservation efforts designed to reduce water use by MSWD retail customers are documented in the RUWMP. MSWD is not a wholesale provider and therefore does not provide demand management measures for wholesale customers. Demand management measures documented in the 2020 RUWMP include the following:

- Waste water prevention ordinances
- Water efficient landscape guidelines
- Metering on all residential, commercial, industrial and municipal connections
- Tiered pricing and drought surcharges to encourage conservation
- Public outreach/education to the general public and schools
- Programs to minimize system losses including monitoring, inspections, water audits and Advance Metering Infrastructure
- A designated water conservation coordinator
- Water use audits and surveys for residential, landscape and commercial customers
- Rebates for turf replacement, smart irrigation controllers and low flow toilets and washing machines

Through the implementation of MSWD conservation ordinances and measures, the 2020 RUWMP identifies the total per-capita District water use has significantly dropped from 308.1 GPCD in 2005 to 216.0 GPCD in 2010 to 172.1 GPCD in 2015 (a reduction of 44.1% since 2005). Residential per-capita MSWD water use has also significantly dropped from 189.8 GPCD in 2005 to 160.4 GPCD in 2010 to 121.1

GPCD in 2015 (a reduction of 36.2% since 2005). MSWD has surpassed the required 20% reduction for 2020, the year in which the RUWMP was last updated.

MSWD developed and adopted a Water Shortage Contingency Plan (WSCP) in June 2021 to address water shortages and conservation measures. MSWD offers various rebate programs to promote water conservation within its service area, such as turf removal rebates and toilet replacement rebates. These programs help homeowners, homeowner associations, and commercial customers reduce their water usage, contributing to broader conservation efforts.

Additionally, MSWD is a partner in CV Water Counts, a nonprofit organization dedicated to promoting water conservation through awareness and education. CV Water Counts aims to raise awareness among Coachella Valley residents, businesses, and local governments about the importance of water conservation. The group comprises six Coachella Valley water agencies, each committed to reducing water usage and promoting sustainable water management practices.

These combined efforts in water conservation, rebate programs, and public awareness initiatives contribute to a more sustainable approach to managing groundwater resources in the Coachella Valley.

3.6 LANDSCAPE ORDINANCE

To ensure effective water conservation, the Project would follow the MSWD Water Efficient Landscaping Guidelines, also known as the Landscape Guidelines. These guidelines aim to promote water conservation by encouraging the use of climate-appropriate plants and efficient irrigation practices. They comply with the State of California's Water Conservation in Landscaping Act.

The Landscape Guidelines apply to various types of new and rehabilitated landscapes, including private, recreational, and commercial developments, as well as single- or multifamily housing developments and residential infill, unless the owner opts for a pre-approved landscape design model that meets the guidelines' criteria.

The application of these guidelines and their related tools, such as the formula for MAWA and ETo data, helps ensure that the Project's landscaping and irrigation practices align with best practices for water conservation. This contributes to sustainable water use in the Coachella Valley and supports the broader goals of groundwater preservation and efficient water management. The projected outdoor irrigation water demands for the Project are presented in Section 0.

3.7 WATER SHORTAGE CONTINGENCY PLANNING

Table 3-8 outlines different levels of anticipated reductions in water supplies available to the Mission Springs Water District (MSWD). These reductions could result from various causes, such as natural forces (e.g., droughts or extreme weather), system component failures or interruptions, regulatory actions, contamination, or a combination of these factors. Depending on the cause, severity, and expected duration of the water supply shortage, MSWD may need to activate these shortage levels across its entire service area or only in specific areas impacted by an event.

Each level includes a set of voluntary and mandatory conservation measures and restrictions to mitigate the effects of the shortage. These measures aim to reduce water consumption and balance the gap between water supplies and demands. Depending on the shortage level, the response actions could

include water use restrictions, water conservation outreach, irrigation limitations, and other targeted actions to manage the shortage effectively.

The specific response actions for each shortage level are detailed in the following section, providing a guide for how MSWD would address water supply shortages to maintain water service while promoting conservation. These actions are crucial to ensuring that MSWD can adapt to varying conditions and continue to serve its customers during times of water scarcity.

Table 3-8: 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

The MSWD expects to continue sourcing the majority of its urban potable water from local groundwater. Unlike other districts, MSWD does not purchase imported water from wholesalers. However, the CVWD has secured imported water supplies from the SWP and the Colorado River, along with recycled water from water reclamation plants. These imported and recycled water resources play a crucial role in replenishing the groundwater basin, which ultimately benefits all water districts across the Coachella Valley.

The replenishment of the groundwater basin with imported water and recycled water contributes to the sustainability and stability of the region's water supply. This process helps maintain adequate groundwater levels, ensuring that MSWD and other districts in the area can continue to meet the water needs of their customers while promoting long-term water resource management. These efforts highlight the collaborative approach in the Coachella Valley to secure diverse water sources and support groundwater sustainability.

4.1 PROJECTED URBAN SUPPLY AND DEMAND

The following tables from the 2020 RUWMP 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 RUWMP

MSWD obtains 100 percent of its water supply from groundwater production and does not rely on imported water from wholesalers. However, to address groundwater overdraft in the Upper Coachella Valley, the Coachella Valley Water District CVWD and DWA are replenishing the basin with water from the Colorado River and SWP Exchange through the MWD.

MSWD's groundwater generally meets all Federal and State primary and secondary water quality standards without additional treatment, except for chlorination for disinfection. However, groundwater from Well No. 26A, which does not serve the portion of MSWD's service area in which the project is located, is treated at the well site to comply with the primary water quality standard for uranium. This demonstrates that MSWD maintains a high standard for water quality, ensuring safety for its customers.

Looking ahead, MSWD plans to expand its recycled water infrastructure, including tertiary treatment facilities, at the Nancy Wright Regional Water Reclamation Facility (NWRWRF). This is expected to support future deliveries of recycled water, contributing to sustainability and diversified water sources.

The projected water supplies for MSWD through 2045 are presented in Table 4-2. This table outlines MSWD's anticipated sources and volumes of water supply, reflecting a comprehensive approach to meeting current and future water demands while maintaining the quality and sustainability of groundwater resources. The addition of recycled water infrastructure signifies MSWD's commitment to addressing future water needs through innovative solutions and sustainability-focused planning.

Table 4-2: MSWD Projected Urban Water Supply

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	1,120	2,200	3,600	5,000
Total		**8,996**	**10,874**	**12,713**	**15,104**	**17,495**

Source: 2020 Coachella Valley RUWMP

4.2 NORMAL, SINGLE-DRY, MULTIPLE-DRY YEAR COMPARISON

The following tables from the 2020 RUWMP 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 RUWMP 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 Coachella Valley RUWMP
Note: MSWD and the other RUWMP 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 exceed the estimates shown here.

During single-dry years, the MSWD can meet both current and future urban water demand, as shown in Table 4-4. Water supplies during a single-dry year are considered 100 percent reliable due to the groundwater replenishment programs in place. The CVWD's groundwater replenishment program plays a crucial role in this reliability. It replenishes the basin during wet years, which helps increase groundwater storage, ensuring there's enough supply to draw from during dry years. This replenishment strategy benefits all water districts in the Coachella Valley that rely on groundwater, including MSWD.

Because of these replenishment efforts, the comparison between supply and demand for a single-dry year is consistent with that for a normal year. This consistency demonstrates that the region's water management strategies are effective in mitigating the impacts of single-dry years, providing a reliable and sustainable source of water for MSWD and other districts in the Coachella Valley. This approach underscores the importance of groundwater replenishment in ensuring long-term water supply reliability, even during periods of reduced precipitation or drought.

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 Coachella Valley RUWMP

During multiple-dry years, the MSWD can meet current and future urban water demand through groundwater pumping, as indicated in Table 4-5. Just like with single-dry years, the water supply reliability during multiple- dry years is 100 percent, allowing MSWD to maintain consistent water supply regardless of weather conditions. Consequently, the supply and demand comparison for multiple-dry years mirrors that of a normal year.

This high level of reliability stems from the effective groundwater replenishment and management programs in place. MSWD and other agencies involved in the RUWMP work together on groundwater management to ensure long-term sustainability. This collaboration enables them to address fluctuations in water demand and ensure a steady supply, even during extended dry periods.

These collaborative efforts and flexible groundwater management strategies ensure that even during a normal year, a single-dry year, or a period of five consecutive dry years, the agencies have the capability to produce additional groundwater if demands exceed the estimates. This approach underscores the resilience and adaptability of MSWD and its partner agencies in meeting water demand in a variety of conditions, contributing to sustainable water resource management in the Coachella Valley.

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)	8,996	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 Coachella Valley RUWMP
Note: Recycled water used for groundwater recharge is presented as a supply and a demand for consistency with DWR reporting framework. The RUWMP participating 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 proposed 20th Avenue Logistics Center development will serve as an industrial facility for a sole tenant. The project entails a single-story warehouse/distribution center covering approximately 1,062,165 square feet of warehouse space with office areas designated at the northeast, southwest, and southeast corners of the building. The building is proposed to reach a maximum height of 50 feet. The project also includes truck docking areas, parking for employees and stormwater basins. The project plans to incorporate approximately 300,463 square feet of landscaping encompassing 13% of the site area. Stormwater drainage for the proposed Project would be provided with two stormwater ponds at the south end of the project site. Infrastructure improvements related to electricity, water, and wastewater will tie into existing city lines off-site. Proposed land use details are summarized in Table 5-1. The land is currently vacant and has no existing water demand.

The project site is located on 19077 Calle De Los Romos in the City of Desert Hot Springs, Riverside County, California. The project is south of 19th Ave, north of 20th Ave, and West of Calle De Los Romos in the southern part of Desert Hot Springs. The project site has a gross acreage of 54.5 acres, with 1.78 acres dedicated for right-of-way dedication, and a net acreage of 52.72 acres. The site includes a single parcel, APN 666-370-019. The land is zoned for Industrial land use. The Project is located in the Mission Springs Water District who would be responsible for the water supply.

Refer to Figure 2-1 for a vicinity map and Figure 5-1 for a project location map. A site plan from the project drawings is shown in Figure 5-2.

Table 5-1: Land Use Details

LAND USE	LAND AREA (ACRES)	TARGET DENSITY (EDUS/ACRE)	ESTIMATED DWELLING UNITS (EDUS)	NON-RESIDENTIAL BUILDING AREA (FT^2)
Industrial Building Area	24.38	0.00	0	1,062,165
Access Roads/Hardscape/Parking	21.44	0.00	0	0
Landscape/Open Space/Retention Basins	6.90	0.00	0	0
Right-of-Way Dedication	1.78	0.00	0	0
Total	54.5	0.00	0	1,062,165

Figure 5-1: Project Location

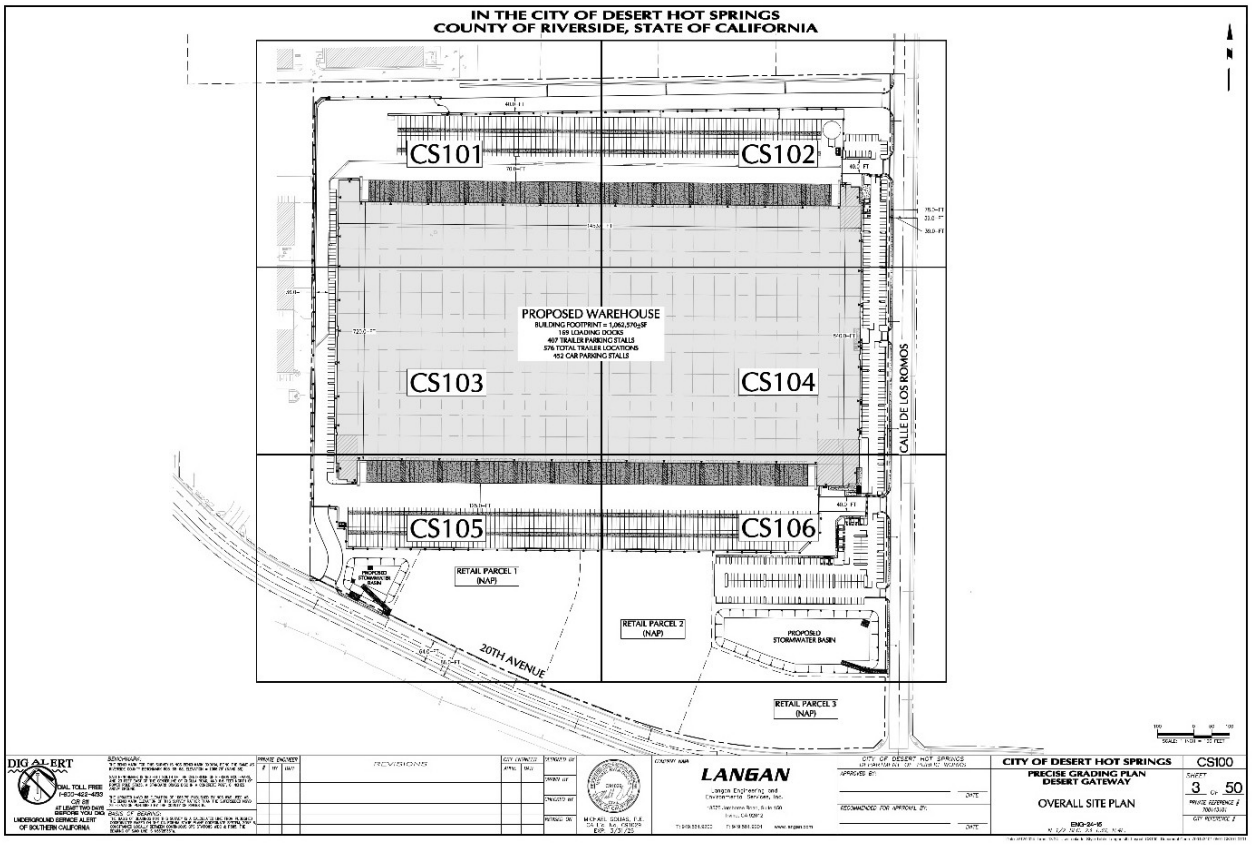


Figure 5-2: Project Site Plan

6 PROJECT WATER DEMANDS

The 20th Avenue Logistics Center (Project) would develop 54.5 gross acres of vacant land in the Coachella Valley consisting of 24.38 acres of industrial building area, 21.44 acres of access roads, parking area, and hardscape, 6.90 acres of landscaping, open space, and stormwater retention basins, and approximately 1.78 acres of right-of-way dedication.

6.1 PROJECTED INDOOR RESIDENTIAL WATER DEMAND

The project does not propose any residential land use components; therefore, the projected indoor residential water demand for the Project is 0 AFY.

6.2 PROJECTED INDOOR INDUSTRIAL WATER DEMAND

The projected indoor water demand for the Project is 54.7 AFY as shown in Table 6-1. This is based on a locally adopted Water Demand Factor of 2,000 gpd/acre in Table 5 of the District's 2025 Water Master Plan (in progress).

Table 6-1: Projected Indoor Industrial Water Demand

PLANNING AREA	INDOOR AREA (ft²)	NUMBER OF ROOMS	MAXIMUM INTERIOR FLOOR SPACE PER UNIT	WATER DEMAND FACTOR (gpf/acre)	WATER DEMAND (gpd)	WATER DEMAND (AFY)
Industrial Planning Area	1,062,165 (24.4 acres)	-	-	2,000	48,800	54.7

6.3 PROJECTED OUTDOOR WATER DEMAND

The projected outdoor irrigation water demand for the Project is 9 AFY. Rodarte Landscape Architecture, Inc. prepared landscape architectural drawings for the project in May 2024. These included design drawings and a water use estimate for 237,685 square feet (5.5 acres) of landscaping. The water demands were calculated using a 2015 MWELO Water Efficient Landscape Worksheet that included variables such as evapotranspiration (ET), plant factor, irrigation efficiency, etc. The estimated total water use (ETWU) was 2,932,310 gallons/year (9 AF/yr). This value is used in this WSA. The calculations also presented a maximum annual allowed water allowance (MAAWA), which represents the upper limit of the annual allowed water for an established landscape area. The MAAWA was estimated to be 4,714,934 gallons per year. Since the ETWU is less than the MAAWA, the water demand is considered acceptable.

6.4 PROJECTED OUTDOOR WATER FEATURES DEMAND

The projected outdoor water features demand for the Project is 0 AFY as there are no outdoor water features proposed. There are also no recreational water features so there is no recreational water demand.

6.5 PROJECTED TOTAL WATER DEMAND

The total projected water demand for the Project is 63.7 AFY, or 1.17 AF per acre, shown in Table 6-2.

Table 6-2: Projected Total Water Demand

PLANNING AREA	LAND AREA (ACRES)	INDOOR INDUSTRIAL DEMAND	OUTDOOR IRRIGATION DEMAND	TOTAL WATER DEMAND (AFY)
Industrial Building Area	24.38	54.7	0	54.7
Access Roads/Hardscape /Parking/Other	21.44	0	0	0
Landscape/Open Space/Retention Areas	6.90	0	9.0	9.0
Right-of-Way Dedication	1.78	0	0	0
Total	54.5	54.7	9.0	63.7

6.6 PROJECT WATER SOURCES

Domestic water supplies and associated landscape irrigation supplies for the Project will be provided by groundwater from the Mission Creek Subbasin in the Coachella Valley Groundwater Basin, provided by MSWD's potable water distribution system. Projected water sources to serve indoor and outdoor uses are shown in Table 6-3.

Table 6-3: Projected Water Sources

PLANNING AREA	LAND AREA (ACRES)	INDOOR INDUSTRIAL DEMAND	OUTDOOR IRRIGATION DEMAND
Industrial Building Area	24.38	MSWD Domestic Water System	
Access Roads/ Hardscapes/ Parking/ Other	21.44		MSWD Domestic Water System
Landscape/ Open Space/ Retention Basins	6.90		
Right-of-Way Dedication	1.78		

6.7 CONSERVATION MEASURES

This section of the WSA documents water conservation measures that would be implemented by the proposed Project.

6.7.1 PROJECT-SPECIFIC WATER CONSERVATION MEASURES

Design components and mitigation measures have been developed to address the Project's potential impacts on water resources.

To meet and maintain the 2020 Coachella Valley RUWMP goals throughout the life of the Project, developers of the Project will be required to implement the following measures in order to address the need for the efficient use of water resources:

1. Landscaping and irrigation plans, and irrigation systems shall comply with all City ordinances and MSWD's Water Efficient Landscaping Guidelines. Irrigation systems shall be automatic, operated by a timer. To promote deep root irrigation, the system shall use two bubbler heads or drop heads per tree.
2. The Project shall use, to the extent practicable, native plant materials and drought-tolerant plants. The Project shall not make use of turf grass in the landscape design, instead, ground cover plants consisting of shrubs non-turf grasses, and groundcovers.
3. Demand Management Measure: Metering. The District's water system is fully metered. Therefore, the District completes annual checks on the accuracy and operation of production meters by either recalibrating and reinstalling meters, or by replacing meters that do not fall within the required operating range of AWWA standards. Monthly non-revenue water is accounted for. In 2020, the District completed a system-wide upgrade to advanced metering infrastructure (AMI), which allows for the direct transmission of water use data between the point of consumption and the utility. As such, AMI provides a higher level of accuracy, eliminates the need to manually read water meters, improves overall efficiency of operations, and allows for the identification of potential leaks.
4. Demand Management Measure: Conservation Pricing. The District has a tiered rate structure for water service within its service area. The tiered rate structure is intended to discourage high water use. The District may also enact a drought surcharge, as required by Statewide drought measures. For example, during the 2016 California Drought, the District implemented a temporary $0.05 per hundred cubic feet drought surcharge, consistent with State drought requirements. The District imposes rates for sewer service based on water usage which also promote water conservation.

7 AVAILABILITY OF SUFFICIENT SUPPLIES

7.1 WATER SUPPLY ASSESSMENT

This WSA projects that the total water demand for the 20th Avenue Logistics Center (the Project) will be 63.7 AFY, equating to about 1.17 AF per acre. The MSWD long-term water management planning ensures sufficient water supplies to meet existing and future water needs within its service area. In 2020, MSWD's urban water demand was 8,269 AF, projected to increase to 8,996 AFY by 2025 and 17,494 AFY by 2045. The Project's demand of 63.7 AFY represents approximately 9 percent of the total planned increase in demand by 2025 and about 0.7 percent of the total increase by 2045, based on 2020's water demand.

This WSA assesses the availability of sufficient water supplies during normal, single-dry, and multiple-dry years over a 20-year projection to meet the demands of the Project, as well as existing and future water demands of the MSWD service area, in compliance with Senate Bills 610 and 1262. It also identifies existing water supply entitlements, water rights, water service contracts, and agreements that pertain to the identified water supply for the Project, along with the quantities of water received in prior years under these arrangements.

Provost & Pritchard prepared this WSA in consultation with the City of Desert Hot Springs and MSWD. This assessment does not exempt the Project from complying with all applicable state, county, city, and local ordinances or regulations, including the 2009 MSWD Water Efficient Landscaping Guidelines, and the indoor water use performance standards outlined in the California Water Code, both now and in the future.

As required by SB 610, this WSA does not create any right or entitlement to water service or a specific level of water service, nor does it impose, expand, or limit any duty concerning MSWD's obligation to provide certain services to existing customers or future potential customers. This WSA does not constitute an agreement to provide water service to the Project. To receive water service, the Project will require an agreement with MSWD, including any applicable fees, charges, plans, specifications, and compliance with all other MSWD requirements.

MSWD retains the authority to declare a water shortage emergency in accordance with the California Water Code. This WSA will be reviewed every five years, or if the water planning assumptions change, until the Project begins construction to ensure its continued accuracy and relevance. The Project applicant must notify MSWD when construction begins.

7.2 REQUIREMENT FOR WRITTEN VERIFICATION OF WATER SUPPLY AVAILABILITY

Under California Government Code §66473.7, a Written Verification of Water Supply (WV) is required for approval of a development agreement or tentative map involving a subdivision. A subdivision generally refers to a proposed residential development of more than 500 units. However, for a water agency with fewer than 5,000 service connections, a subdivision also includes a residential development project that would result in a 10 percent or greater increase in the number of the agency's existing service connections. Based on these criteria, a WV is not required.

It is important to note that this WSA does not constitute a WV. If the City determines that the Project or any planning area qualifies as a subdivision, a WV must be prepared by the MSWD in accordance with SB 221. This WSA can support the preparation of the WV, but it is not a substitute for the formal WV process.

Depending on the situation, including factors like new water efficiency regulations or changes in water supply availability, MSWD might recommend the preparation of an updated water supply and demand assessment to ensure the WV is accurate and current. If a WV is required, the City will need to request it from MSWD, and this WSA can be used as a reference point during that process.

8 CONCLUSIONS

The following points are described in detail in the previous sections and provide the basis for the conclusions of the assessment.

- The project includes a 1.06 million square foot warehouse on a 54.4-acre parcel in the City of Desert Hot Springs, Riverside County.
- Operational water demands are estimated to be 63.7 AFY. Approximately 86% of the water will be used indoors and the remainder for on-site landscaping.
- Mission Springs Water District (MSWD) will provide water for the project. MSWD uses groundwater solely for water supply, and has agreements with other agencies for groundwater replenishment to maintain a sustainable groundwater supply
- The Project will have sufficient water supplies available to meet demands during normal, dry, and multiple dry years based on available water supplies for Mission Springs Water District as documented in the 2020 Coachella Valley Regional Urban Water Management Plan (Water Systems Consulting, 2021).

9 REFERENCES

California Department of Water Resources, *California's Groundwater Update 2020 Highlights Bulletin 118*, Companion Report to *California's Groundwater Update 2020 Bulletin 118, November 2021.*

Coachella Valley Water District, Ordinance No. 1302.5, *An Ordinance of the Coachella Valley Water District Establishing Landscape and Irrigation System Design Criteria*, February 12, 2019.

Coachella Valley Water District, *Water Shortage Contingency Plan*, June 2021.

Water Systems Consulting, Inc., *2020 Coachella Valley Regional Urban Water Management Plan*, June 30, 2021.

Wood Environment & Infrastructure Solutions, Inc. and Kennedy/Jenks Consultants, Inc., *Mission Creek Subbasin Alternative Plan Update*, November 2021.