

Water Supply Assessment and Water Supply Verification

for the Proposed

First Palm Springs Commerce Center

APN's 666-320-010, -011, -012, -015 and -019

Prepared for:

Mission Springs Water District

66575 2nd Street

Desert Hot Springs, CA 92240

PREPARED BY:

MNS Engineers, Inc.

3850 Vine Street, Suite 110

Riverside, California, 92507

September2024

This page is intentionally left blank.

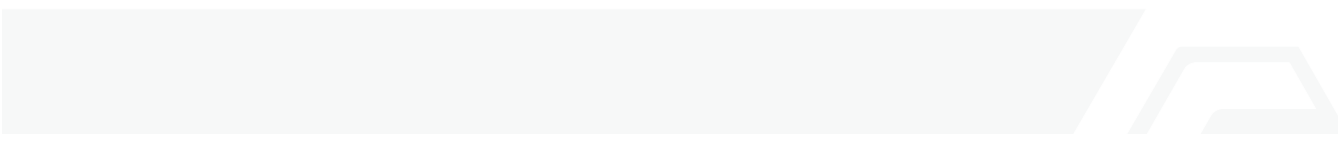


Table of Contents

1	Summary and Requirements	5
1.1	Regulatory Requirements	5
1.1.1	Senate Bill 610.....	6
1.1.2	Senate Bill 1262.....	7
1.2	Water Management Planning Documents.....	7
1.2.1	Urban Water Management Planning Act.....	7
1.2.2	Sustainable Groundwater Management Act.....	8
1.2.3	Groundwater Replenishment	9
2	Public Water System.....	10
2.1	Mission Springs Water District (MSWD)	10
2.2	Coachella Valley Hydrology	13
3	Groundwater	14
3.1	Coachella Valley Groundwater Basin.....	14
3.1.1	Coachella Valley Groundwater Basin - Subbasins.....	14
3.1.2	Groundwater Demand	19
3.1.3	Groundwater Sustainability	19
3.2	Imported Water.....	27
3.2.1	Colorado River Water.....	27
3.2.2	State Water Project	28
3.2.3	Other State Water Project Water.....	29
3.3	Surface Water.....	29
3.3.1	River/Stream Diversion.....	29
3.3.2	Stormwater Capture	30
3.4	Wastewater and Recycled Water.....	30
3.5	Conservation.....	31
3.6	Landscape Ordinance.....	37
3.7	Water Shortage Contingency Planning.....	37
4	Public Water System – Projected Supply and Demand	39
4.1	Projected Urban Supply and Demand.....	39
4.2	Normal, Single-Dry, Multiple-Dry Year Comparison.....	40
5	Project Description	42
6	Project Water Demands	51

6.1	Projected Indoor Residential Water Demand.....	51
6.2	Projected Indoor Industrial Water Demand.....	51
6.3	Projected Outdoor Water Demand	51
6.4	Projected Outdoor Water Features Demand	52
6.5	Projected Total Water Demand.....	52
6.6	Projected Water Sources	52
6.7	Conservation Measures	53
6.7.1	Project Specific Water Conservation Measures	53
7	Availability of Sufficient Supplies	55
7.1	Water Supply Assessment	55
7.2	Requirement for Written Verification of Water Supply Availability	55
8	References	57

FIGURES

Figure 2-1: Mission Springs Water District Boundary	11
Figure 3-1: Coachella Valley Groundwater Basin and Subbasins	17
Figure 3-2: Water Level Monitoring Wells in the Mission Creek Subbasin.....	21
Figure 3-3: Historical Annual Change in Groundwater Storage in the Mission Creek Subbasin.....	23
Figure 3-4: Change in the Groundwater Elevation from Water Year 2008-2009 through water Year 2021-2022 in the Mission Creek Subbasin.....	25
Figure 5-1: Project Regional Vicinity Map.....	43
Figure 5-2: Project Vicinity Map.....	45
Figure 5-3: Project Site Location.....	47
Figure 5-4: Project Site Plan.....	49

TABLES

Table 2-1: Current and Projected Population for MSWD’s Service Area.....	10
Table 2-2: Monthly Average Climate Data for Palm Springs	13
Table 2-3: Monthly Average Climate Data for Thermal	13
Table 3-1: Groundwater Demand in the Coachella Valley Groundwater Basin.....	19
Table 3-2: CVWD Colorado River Entitlements (AFY).....	27
Table 3-3: Colorado River Deliveries to CVWD at the Imperial Dam/Coachella Canal	28
Table 3-4: CVWD Groundwater Recharge of Colorado River Water	28
Table 3-5: State Water Project Table A Allocations.....	29
Table 3-6: State Water Project Table A Percent Allocations	29
Table 3-7: CVWD and DWA Groundwater Recharge	29
Table 3-9 - MSWD Demand Management Measures ¹	31
Table 3-9: Urban Water Shortage Contingency Plan Shortage Levels	38
Table 4-1: MSWD Projected Demands for Water.....	39
Table 4-2: MSWD Projected Urban Water Supply.....	40
Table 4-3: Normal Year Supply and Demand Comparison.....	40
Table 4-4: Single-Dry Year Supply and Demand Comparison.....	40
Table 4-5: Multiple-Dry Years Supply and Demand Comparison.....	41
Table 6-1: Projected Indoor Industrial Water Demand.....	51
Table 6-2: Projected Outdoor Irrigation Water Demand.....	52
Table 6-3: Projected Total Water Demand	52
Table 6-4: Projected Water Sources.....	53

APPENDICES

- Appendix A: 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP) (June 30, 2021). Available at: [Urban Water Management Planning | Coachella Valley Water District - Official Website \(cvwd.org\)](https://www.cvwd.org/urban-water-management-planning)
- Appendix B: Mission Creek Subbasin Alternative Plan Update (November 2021). Available at: [Mission Creek Subbasin Alternative Plan Update \(missioncreeksubbasinsgma.org\)](https://www.missioncreeksubbasinsgma.org)

This page is intentionally left blank.

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. MNS Engineers, Inc. worked on this report with the Mission Springs Water District (MSWD) and the City of Palm Springs (City). SB 610 aims to make sure 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 First Palm Springs Commerce Center (“Project”) is being reviewed in compliance with the California Environmental Quality Act (CEQA) process. The City of Palm 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, north of Interstate 10 (I-10) and east of State Route (SR 62) in the northern part of Palm Springs, Riverside County. It covers five (5) parcels with Assessor Parcel Numbers 666-320-010, -011, -012, -015, and -019. The site is bordered by 18th Avenue to the north, North Indian Canyon Drive to the east, 19th Avenue to the south, and Karen Drive and Blair Road to the west. The Union Pacific Railroad (UPRR) corridor is about one and a half (1.5) miles south of the site.

The Project will develop approximately 91.97 net acres (101.08 gross acres) of empty land into two (2) warehouse buildings. Building 1 will cover 1,516,174 square feet, while Building 2 will be 393,957 square feet. Both buildings will include office spaces, pump houses, truck docking areas, and parking for employees.

This Water Supply Assessment (WSA) found that the Project will need 254.5 acre-feet of water per year (AFY), or about 2.51 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 get 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 Palm 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 the 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 First Palm Springs Commerce 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 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 a long-term Regional Urban Water Management Plan (RUWMP) for the Coachella Valley. 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—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 First Palm Springs Commerce Center is within the MSWD service area, covering about 325 square miles, including parts of Palm 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. 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 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 you mentioned 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.

2 Public Water System

The City of Palm 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. 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 **Figure 2-1, Mission Springs Water District Boundary**.

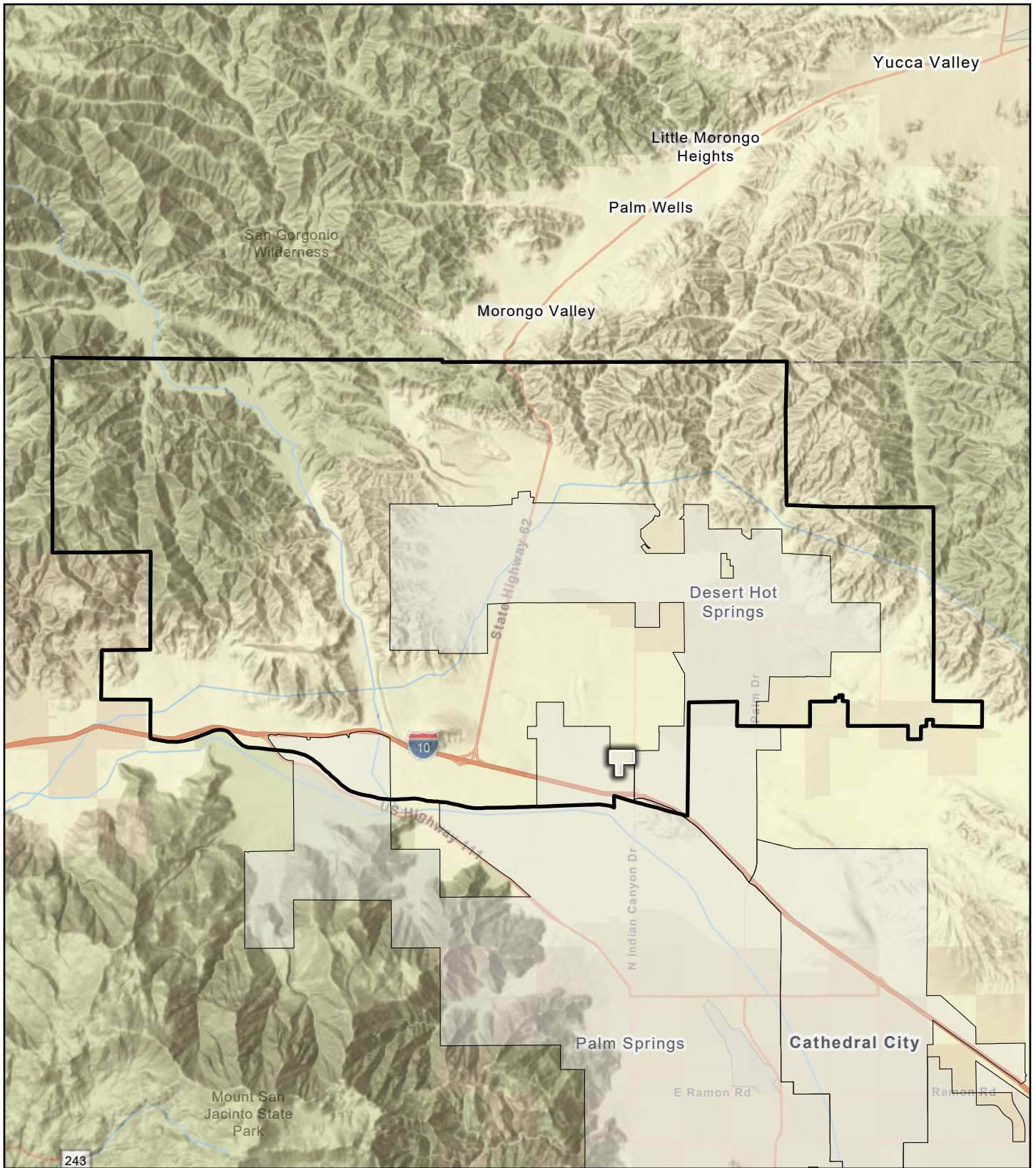
The 2020 RUMWP projected that population in MSWD’s urban water service area would increase as shown in **Table 2-1**.




Overall, MSWD plays a crucial role in supplying water and managing wastewater for its service area, serving a diverse range of communities across a sizable geographic region. Its governance structure and service delivery systems ensure the district's capacity to meet the needs of its customers and maintain a steady water supply and wastewater treatment infrastructure.

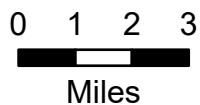
Table 2-1: Current and Projected Population for MSWD’s Service Area

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



-  Project Site
-  Mission Springs Water District
-  Cities



NORTH PALM SPRINGS MASTER PLAN

Mission Springs Water District

This page intentionally left blank.

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 Desert Resorts Regional Airport, 1990-2020

² CIMIS Station 218 – Thermal South, 2010-2020

3 Groundwater

Groundwater is the primary source of drinking water in the Coachella Valley. 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 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 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

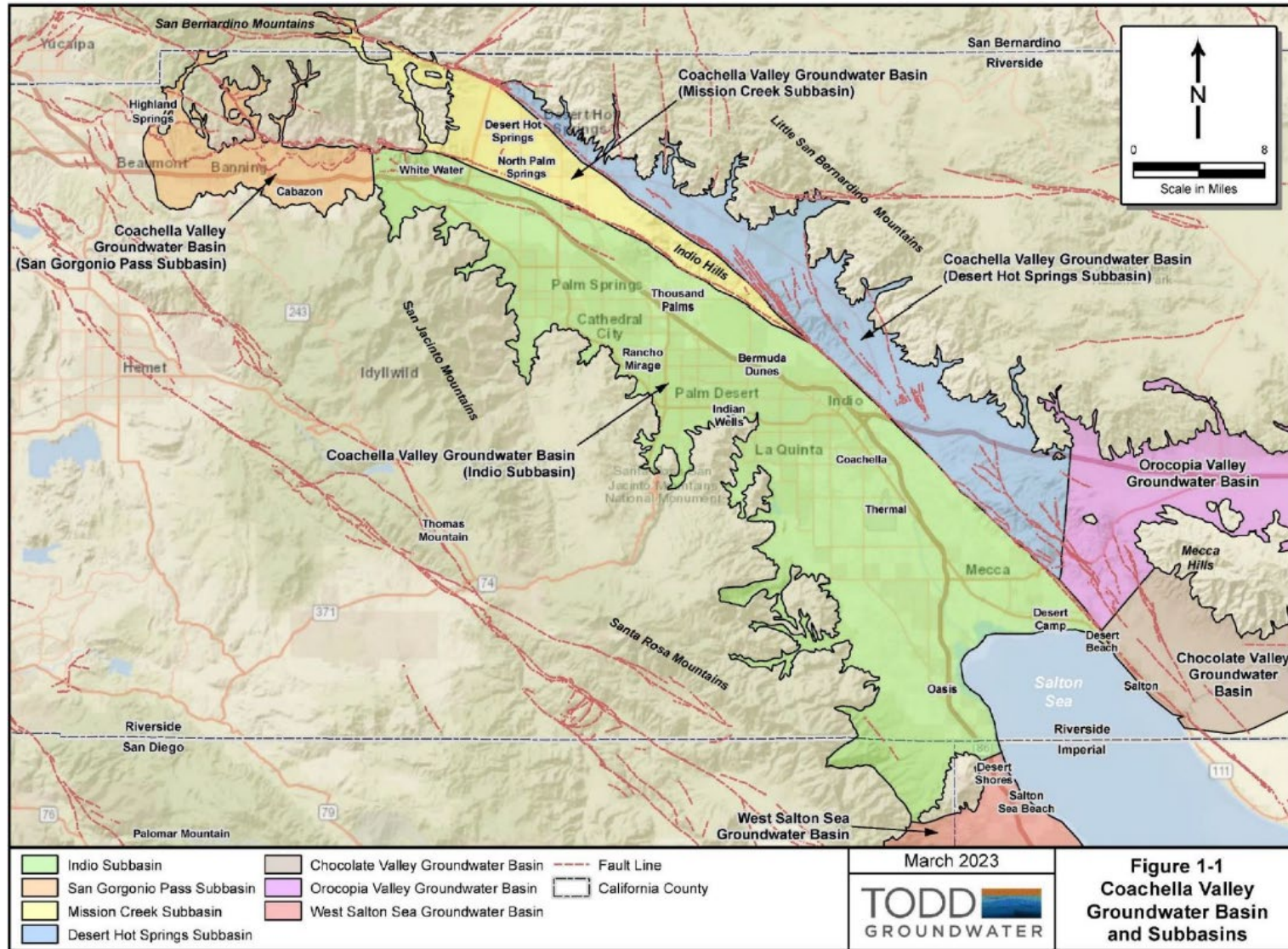
As shown on **Figure 3-1, Coachella Valley Groundwater Basin and Subbasins**, which outlines the Coachella Valley Groundwater Basin and its subbasins, the major subbasins within the Coachella Valley Groundwater Basin are Indio, Mission Creek, San Gorgonio Pass, and Desert Hot Springs. These subbasins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

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.

This page is intentionally left blank

Figure 3-1: Coachella Valley Groundwater Basin and Subbasins



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

This page is intentionally left blank.

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 or subject to critical conditions of overdraft.

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, 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 3-1**.

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.

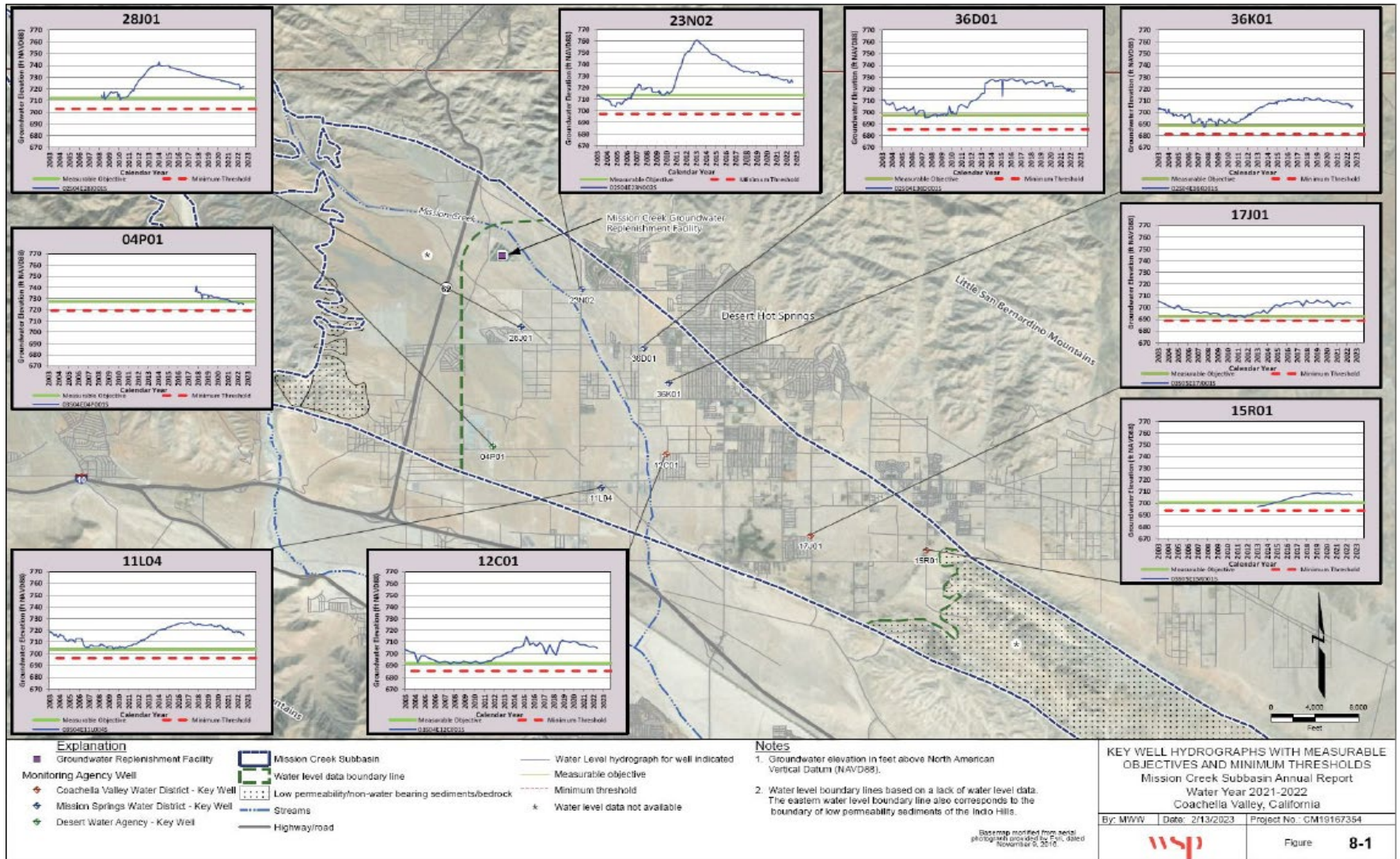
3.1.3.1 Mission Creek Subbasin

The 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, Water Level Monitoring Wells in the Mission Creek Subbasin**, 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) 2021-2022, 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 is not experiencing significant undesirable results like chronic lowering of groundwater levels, depletion of groundwater storage, or potential subsidence.

Figure 3-3, Historical Annual Change in Groundwater Storage in the Mission Creek Subbasin, shows annual changes in groundwater storage from 1978 through WY 2021-2022, 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, suggesting long-term sustainability.

Moreover, Figure 3-4, Change in Groundwater Elevation from Water Year 2008-2009 Through Water Year 2021-2022 in the Mission Creek Subbasin, 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, primarily due to the successful implementation of the Mission Creek Subbasin Alternative Plan.

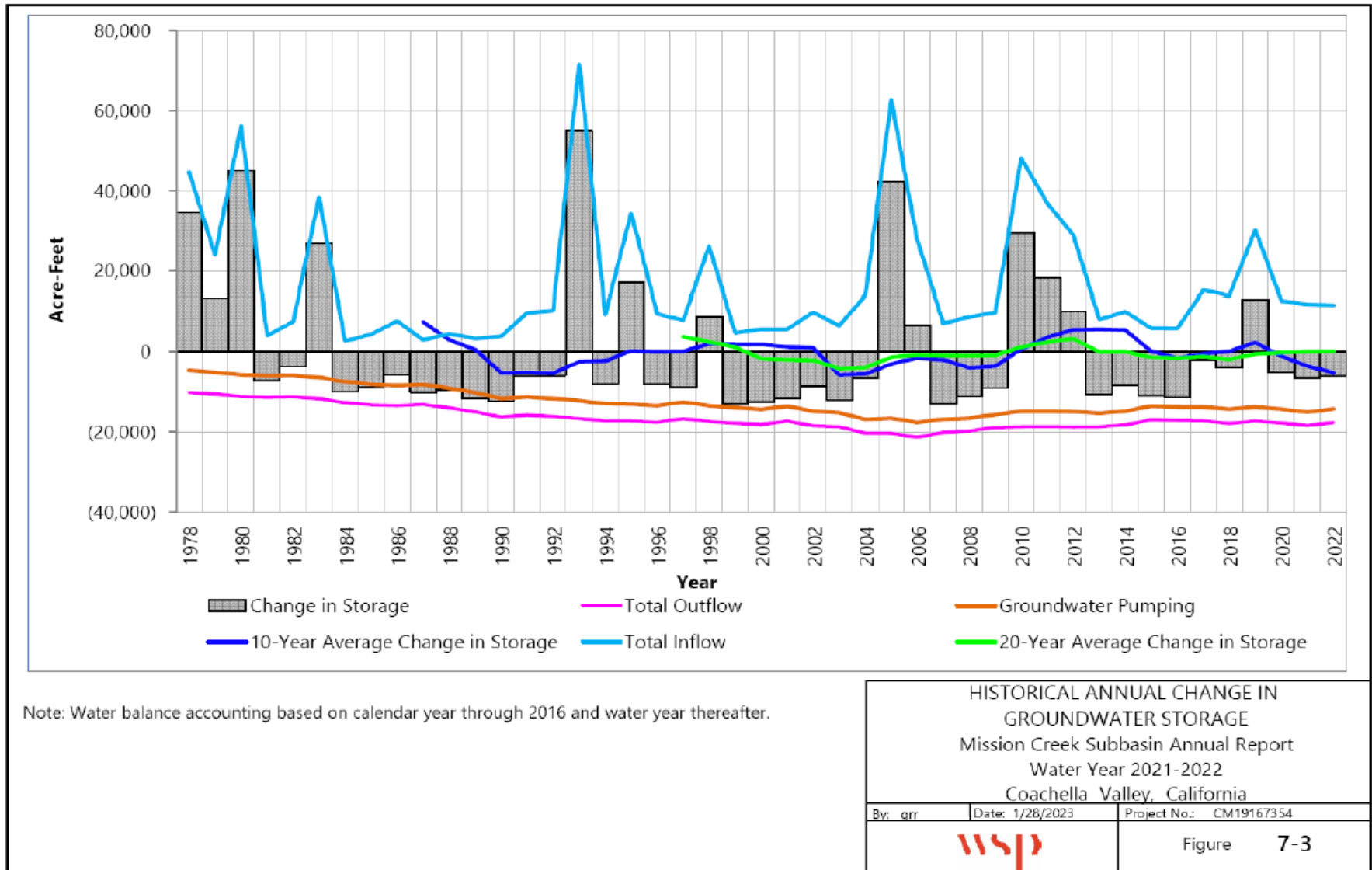
Figure 3-2: Water Level Monitoring Wells in the Mission Creek Subbasin



Source: 2022 Alternative Plan Update for the Mission Creek Subbasin

This page is intentionally left blank.

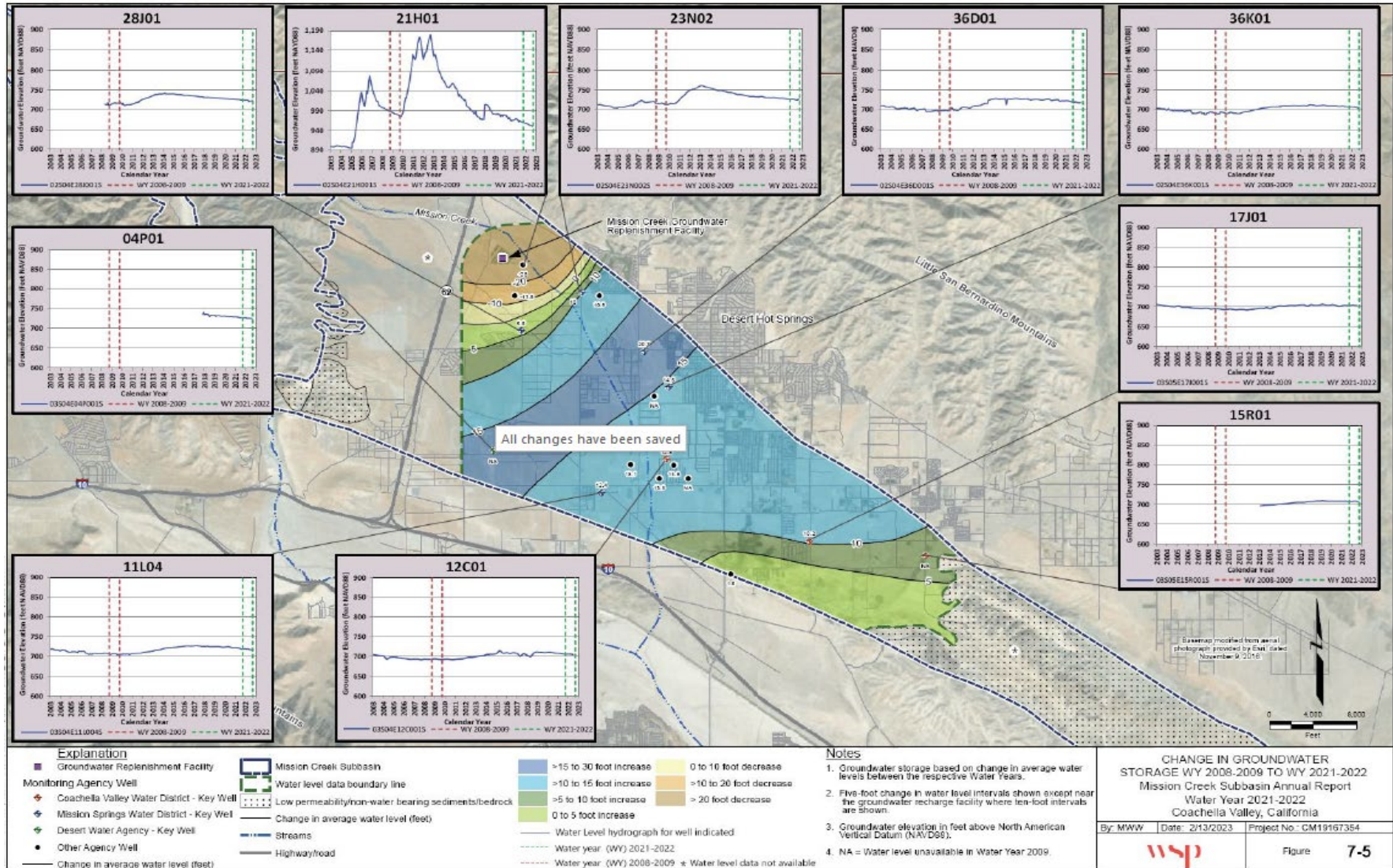
Figure 3-3: Historical Annual Change in Groundwater Storage in the Mission Creek Subbasin



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

This page is intentionally left blank.

Figure 3-4: Change in the 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

This page is intentionally left blank.

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 groundwater basin with imported water from the Colorado River and State Water Project (SWP) Exchange, obtained through the Metropolitan Water District of Southern California (MWD).

These imported water sources are crucial for maintaining groundwater levels and serve as an alternative supply for non-potable uses like 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 groundwater basin in the Coachella Valley. 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. 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 aquifer. 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 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. 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	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.

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 2018 through 2022 are shown in **Table 3-3**.

Table 3-3: 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 3-4**.

Table 3-4: 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, 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 re-established 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.

Tables 3-6 and 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 (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 RUWMP

Table 3-6: 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 3-7: CVWD and DWA Groundwater Recharge

Groundwater Recharge (AF)	2018	2019	2020	2021	2022
Whitewater River GRF	129,925	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 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 along with their corresponding implementation status is shown in Table 3-8, MSWD Demand Management Measures.

Table 3-8 - MSWD Demand Management Measures¹

Demand Management Measure	Program Description	Implementation Status
Water Waste Prevention Ordinances	In 2004, MSWD adopted two major conservation policy statements: a water conservation master plan and water efficient landscaping guidelines. The Water Conservation Master Plan identifies several key areas in which MSWD will pursue more efficient water use practices, namely: efficient landscaping guidelines; efficient landscaping requirements for new development; and xeriscape demonstration garden; efficient landscaping incentives; conservation	Since 2020, the rebate program has removed over 72,000 square feet of turf, which was replaced with water efficient desert landscaping with a potential to save over 4 million gallons of water per year, and over 76 toilets were removed and replaced with highly efficient

	<p>education programs in schools, community and monthly billing information; tiered water pricing that encourages conservation; updated water shortage ordinance; and rebates for turf replacement, smart irrigation controllers and water efficient appliances, including low flow toilets and clothes washers.</p>	<p>toilets that have a potential 20% reduction in water use.</p>
Metering	<p>MSWD maintains water meters on all residential, commercial, industrial and municipal connections to MSWD’s water distribution system.</p> <p>MSWD has an aggressive meter replacement program. Meters are re-built or replaced on a multi-year cycle to ensure accuracy and proper functioning. MSWD’s water system is fully metered.</p>	<p>MSWD 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, MSWD 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.</p>
Conservation Pricing	<p>The District has a tiered rate structure for water service 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.</p> <p>Most of the District’s water customers also receive sewer service from District.</p>	<p>The District imposes rates for sewer service based on maximum potential water usage, billed at a uniform rate for residential customers. Commercial sewer service fees are based on water usage and also promote water conservation.</p>
Public Outreach and Education	<p>The District maintains a website titled MSWD.org which provides information regarding:</p> <p>Methods to reduce water use;</p> <ul style="list-style-type: none"> • Watering restrictions; • A dedicated conservation page; 	<p>The extent of the District’s involvement in programs for public education and outreach has not been quantified. As the program matures and the program is</p>

	<ul style="list-style-type: none"> • A water efficient planting database; • An evaporative cooler maintenance program and primer; • Fines and surcharges associated with violation of watering restrictions; • Water rebates for installing certain water saving devices and turf removal; and • Other frequently asked questions regarding water use and conservation <p>MSWD has partnered with Southern California Edison (SCE) and SoCal Gas Company (SCGC) in school education outreach programs that provide information to children to learn the importance of water conservation.</p>	<p>further developed, the District will have a better understanding of the extent of the overall program.</p> <p>The District runs a continual advertising campaign focusing on conservation. These advertisements appear in both regular as well as periodic publications. Public education and outreach also extend to social media outlets such as Facebook, Nextdoor, Instagram, Twitter, LinkedIn and the CV Water Counts website and social media outlets.</p> <p>The Desert Hot Springs community has three Groundwater Guardian Teams and a Groundwater Guardian Affiliate. Designation as a Groundwater Guardian Community is presented by The Groundwater Foundation to communities which demonstrate an ongoing participatory approach to protecting groundwater resources.</p>
<p>Programs to Assess and Manage Distribution System Real Losses</p>	<p>The District employs various operational policies to efficiently manage its water supply, including monthly water service monitoring, daily facility inspections, and annual visual checks of easements and pipelines. Water audits and leak detection are conducted regularly, utilizing field surveys, a telemetry system, and an Advanced Metering Infrastructure (AMI) system. The District also promotes leak prevention through customer education, providing free dye tablets and water conservation kits. Efforts are made to bill appropriate parties for water losses from damaged infrastructure. Currently, unaccounted-for water losses are about 13.5%, with ongoing reviews to ensure these losses remain low.</p> <p>The District undertakes various maintenance and operational programs, including leak detection, meter replacement, system flushing, and reservoir and</p>	<p>The District conducts monthly monitoring of all water services. In addition, daily inspection of all facilities such as pump stations, wells, reservoirs, valve vaults, etc., is completed. On an annual basis, visual inspection of all easements and pipeline alignments is accomplished.</p> <p>A budgeted service line replacement program has been ongoing since 2010.</p> <p>The extent of the District's involvement in programs to assess and manage distribution losses has not been quantified. As the program matures and</p>

	<p>valve maintenance, as outlined in the 2004 Water Conservation Master Plan. Notable projects include the Desert Willow waterline replacement and ongoing service line replacements due to leaks. The District also installed seismic valve controls on reservoirs and flow meters at well sites to track water loss and promote groundwater recharge. Since 2019, the implementation of AMI has reduced the need for technician visits by providing real-time flow data, improving issue resolution with customers.</p>	<p>the program is developed, the District will have a better understanding of the extent of the overall program.</p>
<p>Water Conservaton Program Coordination and Staffing Support</p>	<p>The District has designated the Programs and Public Affairs Associate responsible for implementing both the conservation master plan as well as monitoring progress in fulfilling DMMS and a state conservation order.</p> <p>The District continues to be involved in water conservation programs and coordinates with the four other water agencies of the Coachella Valley through the Coachella Valley Regional Water Management Group and CV Water Counts (www.cvwatercounts.com) regional conservation group.</p>	<p>MSWD, amongst other Coachella Valley water agencies, are part of CV Water Counts, a nonprofit collaborative that was formed to focus on water conservation, through awareness and education programs for Coachella Valley residents, businesses and government. In February 2020, CV Water Counts reported that since June 2015, the Coachella Valley has saved more than 50 billion gallons of water.</p>
<p>Other Demand Measures</p>	<p>The District, in collaboration with SCE and SCGC, offers water conservation programs for residential, landscape, and commercial customers, including water use audits, plumbing rebates, and turf conversion incentives. It conducts large landscape irrigation surveys under its Efficient Landscaping Guidelines and mandates water-efficient practices for new and rehabilitated landscapes. The District also collaborates regionally, contributing to the Coachella Valley-Wide Water Efficient Landscape Ordinance and the Riverside County Water Use Efficiency Ordinance. Resources and tools are provided to residents for creating desert-friendly landscapes, with a focus on water-wise plant materials and efficient irrigation systems.</p>	<p>In 2015-2016 MSWD implemented a Turf Rebate Program to incentivize the removal of high water consuming turf grass (and/or significant groundcover plant materials that are similar in water demand) and replaced it with desert-friendly, water-efficient landscaping. The program was available to all MSWD customers; including a residential component for single family homes, a commercial component that included for-profit and non-profit businesses and multi-family housing, and a public-properties component included all municipal properties and those considered public, such as parks, medians, government buildings, schools</p>

		<p>and similar properties. The intent was to replace turf with aesthetically pleasing desert landscaping and reduce water consumption and water runoff as well as increase education about water conservation and desert friendly landscaping. Residents could earn up to \$3,000 in rebate per project and commercial property owners could receive up to \$10,000 per project. Each project would receive \$2 per square foot of turf removed and were required to pay a minimum of 35% of the project expenses. As demand is again increasing for such a program, MSWD is opening it back up in Spring 2021.</p> <p>Also in 2016, MSWD implemented a Plumbing Retrofit Rebate Program for the sole purpose of reducing domestic water consumption through incentivizing the installation of water efficient plumbing fixtures, such as replacing toilets that used at least 3 gallons per flush and replacing shower heads and faucet aerators with “WaterSense” approved fixtures. The plumbing program was open to residential, multi-family and commercial customers. Beginning in 2020, MSWD has opened up the Plumbing Retrofit Rebate Program to provide customers with a greater opportunity to participate in efficient water use.</p> <p>Lastly, MSWD completed an Evaporative Cooler and Maintenance Program in 2016 to further combat water waste. Evaporative coolers can use</p>
--	--	--

		between 3 and 15 gallons per hour and the program was aimed at providing maintenance to existing systems and disseminating information to residents on efficient use.
Enhanced Rebate Offerings	In 2024, Mission Springs Water District created a rebate offer program to promote water conservation. The newly created rebate offerings include the following: <ul style="list-style-type: none"> • Wash More Using Less: Customers can receive a \$150 rebate by upgrading to a water-efficient washing machine with a six (6) or lower water factor. • Replace and Save: MSWD offers two rebates for replacing old, inefficient toilets with water-efficient models. <ul style="list-style-type: none"> ○ Ultra-Low Flow Toilets: Replace your old toilet with a new model that uses 1.28 gallons per flush (GPF) or less and receive up to a \$100 rebate. ○ Premium High-Efficiency Toilets: Upgrade to premium models using 1.1 GPF or less or dual flush models using 1.1/1.6 GPF or less and receive up to a \$150 rebate. • Take Charge with Smart Irrigation Controllers: Upgrade irrigation systems with weather-based smart controllers featuring rain shut-off capability. Rebates are available for residential and commercial customers, with reimbursements of up to \$150 for devices, up to \$100 for professional installation for single-family homes, and up to \$5,000 for commercial or HOA properties. • Rethink Your Grass: MSWD continues to offer \$2 per square foot for grass/turf replacements, encouraging customers to rethink traditional landscaping choices. 	This program is new and as a result the data on implementation outcomes is not yet available.

¹ Source: 2020 Coachella Valley Regional Urban Water Management Plan; MSWD Announces Enhanced Rebate Offerings | Mission Springs, CA Water District

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.

In Exhibit 1, the Landscape Documentation Package, the Landscape Guidelines provide a formula to determine a project's annual Maximum Applied Water Allowance (MAWA). This formula helps assess the total water demand for the Project based on specific landscaping and irrigation factors. The calculation uses the most current evapotranspiration rate (ET_o) map for the region, ensuring accuracy in estimating water needs for landscaping. Additionally, the document includes the most recent ET_o adjustment factor for the region to ensure the proper allowance for outdoor irrigation.

The application of these guidelines and their related tools, such as the formula for MAWA and ET_o 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 demand for the Project is presented in **Table 6-2**, as referenced in the Project Water Demands section.

3.7 Water Shortage Contingency Planning

Table 3-9 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 3-9: 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

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

Use Type	Projected Water Use				
	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

Water Supply	Additional Detail on Water Supply	Projected Water Supply (AFY)				
		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	10,964	12,713	15,104	17,495

Source: 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 Project site is located north of Interstate 10 (I-10) and east of State Route 62 (SR-62) in the northern portion of the city of Palm Springs, County of Riverside; refer to **Figure 5-1, Project Regional Vicinity Map**, and **Figure 5-2, Project Vicinity Map**. The site is comprised of five (5) parcels, Accessor Parcel Numbers 666-320-010, -011, -012, -015, and -019, and is bounded by 18th Avenue to the north, North Indian Canyon Drive to the east, and 19th Avenue to the south. Karen Drive and Blair Road are to the west of the site, and the Union Pacific Railroad (UPRR) corridor is approximately one and half (1.5) miles to the south of the site.

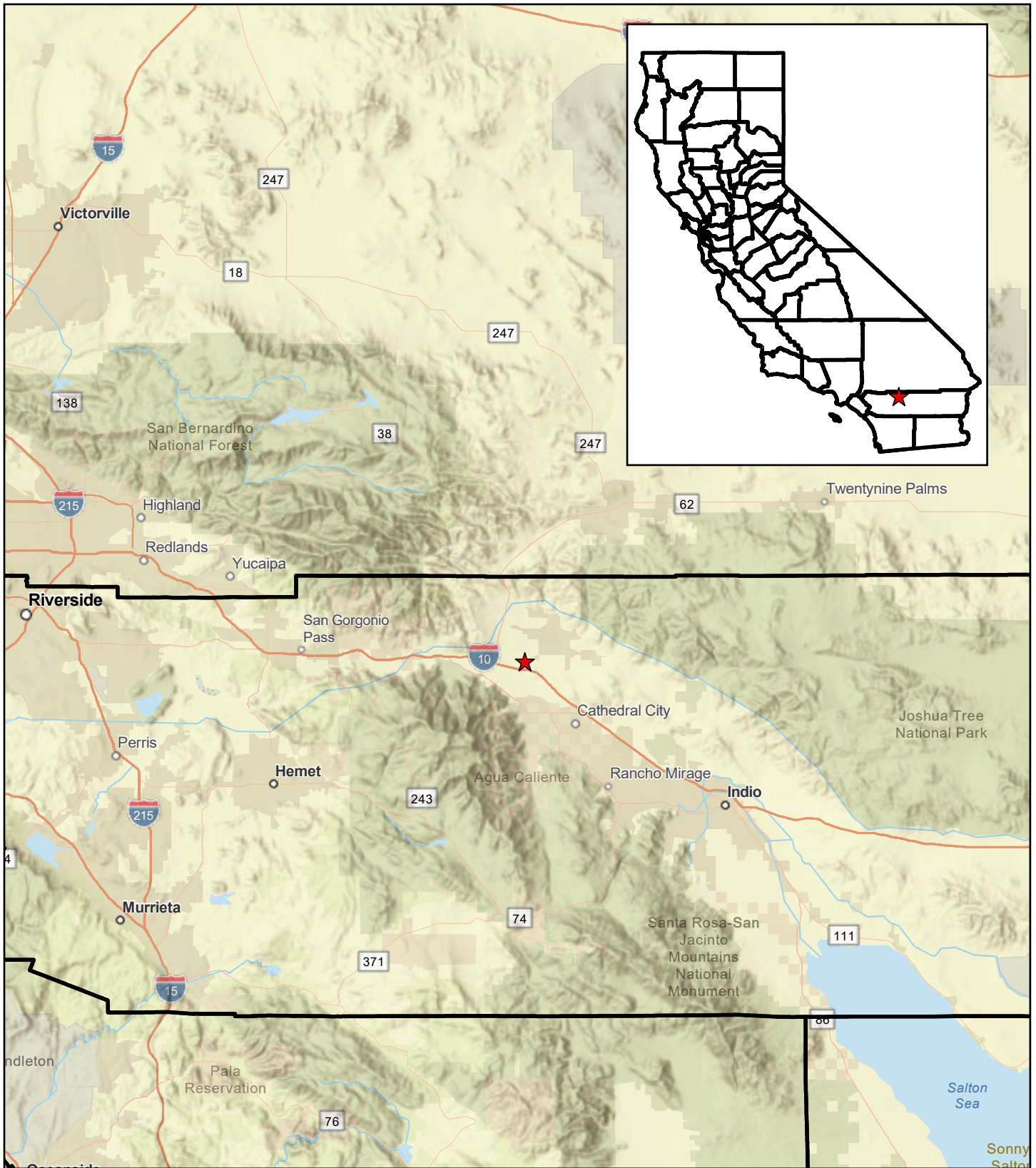
The proposed Project would develop an approximately 91.97-acre site with two (2) warehouse buildings with office spaces, truck docking areas and employee parking spaces; refer to **Figure 5-3, Project Site Plan**. The site is located at the southwest corner of 18th Avenue and N. Indian Canyon Drive. 19th Avenue would provide the site’s southern boundary while Karen Avenue is located to the west of site.

Building 1 would be approximately 1,516,174 square feet (SF) with 258 truck trailer docks, four (4) grade doors, 929 parking spaces for cars and trucks, of which 16 spaces would be for handicap parking, 25 bicycle parking areas, and external building lighting and landscaping. Two (2) office areas on each side of the building would be provided along N. Indian Canyon Drive and Indigo Drive, respectively. Site access would be gated and provided from N. Indian Canyon Drive to the east, Noble Drive to the south and Indigo Drive to the west.

Building 2 would be approximately 388,530 SF with 42 truck trailer docks, two (2) grade doors, 302 parking spaces for cars and trucks, of which eight (8) spaces would be for handicapped parking, 14 bicycle parking areas, as well as external building lighting and landscaping. One (1) office area would be provided at the southeast corner of the building. Site access would be gated and provided from Noble Drive to the north and 19th Avenue to the south.

The Project site would be served by a septic system at the southwest section of the Building 1 site, and at the southeast section of the Building 2 site. Stormwater drainage for the proposed Project would be provided along the eastern and western boundaries of Building 1. Infrastructure improvements related to electricity, water, wastewater, will tie into existing city lines off-site.

Land Use	Land Area (Acres)	Target Density (EDUs/Acre)	Estimated Dwelling Units (EDUs)	Non-Residential Building Area (ft ²)
Industrial Building Area	43.79	0.00	0	1,907,678
Access Roads/Hardscape/Parking	36.85	0.00	0	0
Landscape/Open Space/Retention Basins	15.82	0.00	0	0
Right-of-Way Dedication	±4.62	0.00	0	0
Total	101.08	0.00	0	1,907,678



- ★ Project Location
- Counties



NORTH PALM SPRINGS MASTER PLAN

Regional Location

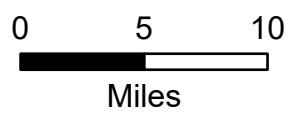
Esri, CGIAR, USGS, County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

Figure 5-1

This page is intentionally left blank.



- ★ Project Location
- Cities



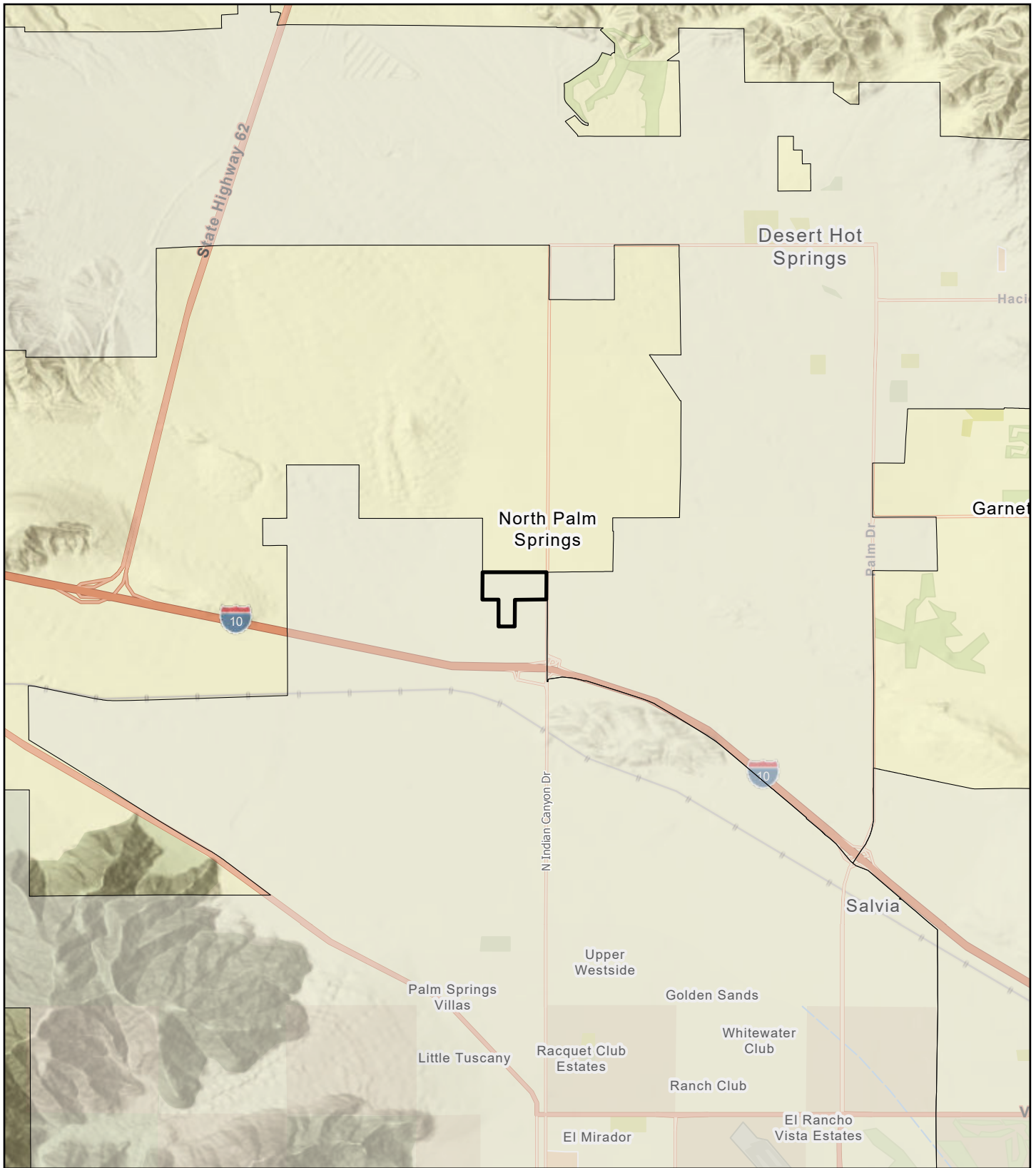
NORTH PALM SPRINGS MASTER PLAN

Project Vicinity

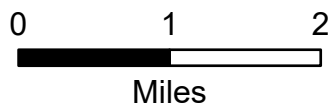
Esri, CGIAR, USGS, UC Riverside, County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

Figure 5-2

This page is intentionally left blank.



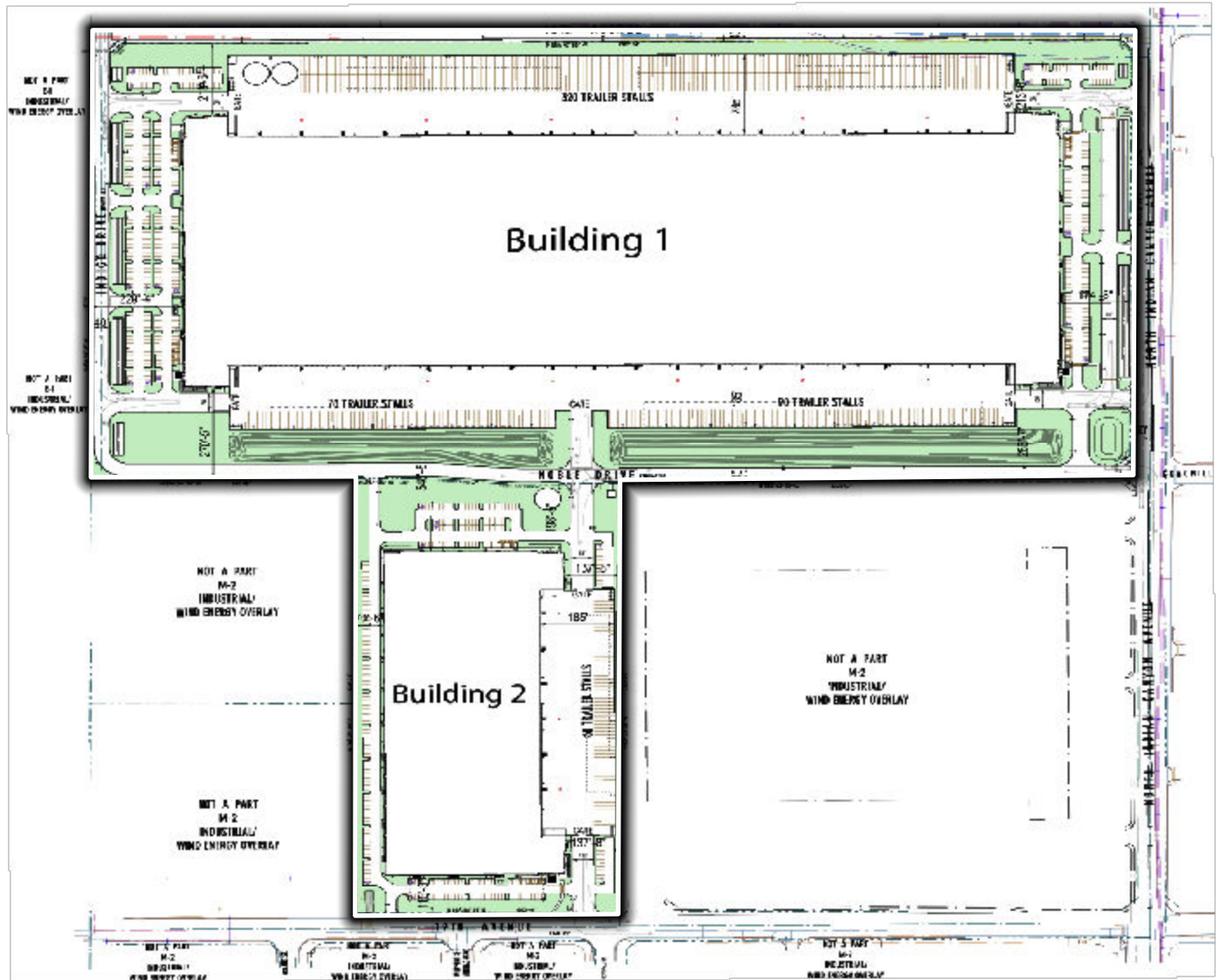
-  Project Site
-  Cities



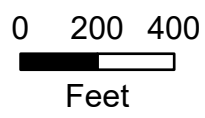
NORTH PALM SPRINGS MASTER PLAN

Project Location

This page is intentionally left blank.



 Project Site



This page is intentionally left blank.

6 Project Water Demands

The First Palm Springs Commerce Center (Project) would develop 101.08 gross acres of vacant land in the Coachella Valley consisting of 43.79 acres of industrial building area, 36.85 acres of access roads, parking area, and hardscape, 15.82 acres of landscaping, open space, and retention basins, and approximately 4.62 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 commercial and industrial water demand for the Project is 204.9 AFY as shown in Table 6-1 below.

The projected indoor water usage for commercial and industrial developments in this WSA is based on the American Water Works Association Research Foundation's (AWWARF) "Commercial and Industrial End Uses of Water." The AWWARF recommends a range of 26 to 35 gallons of water demand per square foot for commercial/industrial space.

To ensure conservative estimates, this WSA uses the higher end of the range, applying a water demand factor of 35 gallons per square foot. This approach provides a safety margin to account for variations in water use patterns and ensures that water supply assessments adequately cover anticipated water demands from commercial and industrial projects.

Table 6-1: Projected Indoor Industrial Water Demand

Planning Area	Indoor Area (ft ²)	Number of Rooms	Maximum Interior Floor Space Per Unit	Water Demand Factor (ga/ft ²) ¹	Water Demand (gpd)	Water Demand (AFY)
Industrial Planning Area	1,907,678	--	--	35	182,928	204.9

¹AWWARF Commercial and Industrial End Uses of Water, 2000

6.3 Projected Outdoor Water Demand

The projected outdoor irrigation water demand for the Project is 49.6 AFY as shown in Table 6-2 below.

To calculate outdoor water demand for the Project, this WSA uses CVWD Ordinance No. 1302.5, *An Ordinance of the Coachella Valley Water District Establishing Landscape and Irrigation System Design Criteria*, which complies with California's Water Conservation in Landscaping Act. This ordinance includes various guidelines and requirements designed to promote water efficiency in landscaping.

The WSA relies on Appendix C of CVWD Ordinance No. 1302.5, along with MSWD' *Water Efficient Landscaping Guidelines*, specifically Exhibit 1, *Landscape Documentation Package*, to determine a project's annual MAWA. The MAWA formula calculates the maximum allowable water use for landscaping based on climate, plant types, and irrigation efficiency.

To ensure accuracy in estimating outdoor water demand, the WSA references the most current evapotranspiration adjustment factor (ET adjustment factor) for the region. This adjustment factor accounts

for variations in local climate and weather conditions, providing a more precise estimate of the water needed for outdoor landscaping and irrigation.

Table 6-2: Projected Outdoor Irrigation Water Demand

Planning Area	Landscaped Area (ft ²)	ET _o (in/yr) ¹	ETAF ²	Conversion Factor (gal/ft ²)	Water Demand (gpd)	Water Demand (AFY)
Industrial Building Area	0	83.3	0.45	0.62	0	0
Access Roads/Hardscape/Parking	0	83.3	0.45	0.62	0	0
Landscape/Open Space/Retention Areas	688,998	83.3	0.45	0.62	43,870	49.1
Right-of-Way Dedication	7,069	83.3	0.45	0.62	450	0.5
Total	696,067					49.6

¹ Reference Evapotranspiration (E_{to}) from CVWD Landscape Ordinance 1302.5, Appendix C

² Evapotranspiration Adjustment Factor (ETAF) from CVWD Landscape Ordinance 1302.5, Appendix C

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

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.

The projected outdoor recreational water usage is calculated using the Estimated Total Water Usage (ETWU) equation from Appendix D of CVWD Ordinance No. 1302.5.

6.5 Projected Total Water Demand

The total projected water demand for the Project is 254.5 AFY, or 2.51 AF per acre, shown in Table 6-3 below.

Table 6-3: Projected Total Water Demand

Planning Area	Land Area (Acres)	Indoor Industrial Demand (AFY)	Outdoor Irrigation Demand (AFY)	Total Water Demand (AFY)
Industrial Building Area	43.79	204.9	0	204.9
Access Roads/Hardscape/Parking	36.85	0	0	0
Landscape/Open Space/Retention Areas	15.82	0	49.1	49.1
Right-of-Way Dedication	4.62	0	0.5	0.5
Total	101.08	204.9	49.6	254.5

6.6 Projected 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 6-4 below.

Table 6-4
Table 6-4: Projected Water Sources

Planning Area	Land Area (Acres)	Indoor Industrial Demand	Outdoor Irrigation Demand
Industrial Building Area	43.79	MSWD Domestic Water System	
Access Roads/ Hardscapes/ Parking	36.85		MSWD Domestic Water System
Landscape/ Open Space/ Retention Basins	15.82		
Right-of-Way Dedication	4.62		

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 First Palm Springs Commerce Center (the Project) will be 254.5 AFY, equating to about 2.51 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, and it is projected to increase to 8,996 AFY by 2025 and 17,494 AFY by 2045. The Project's demand of 254.5 AFY represents approximately 35 percent of the total planned increase in demand by 2025 and about 2.7 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.

MNS Engineers, Inc. prepared this WSA in consultation with the City of Palm 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, and specifications, along with 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 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.

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 References

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

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.

This page is intentionally left blank.