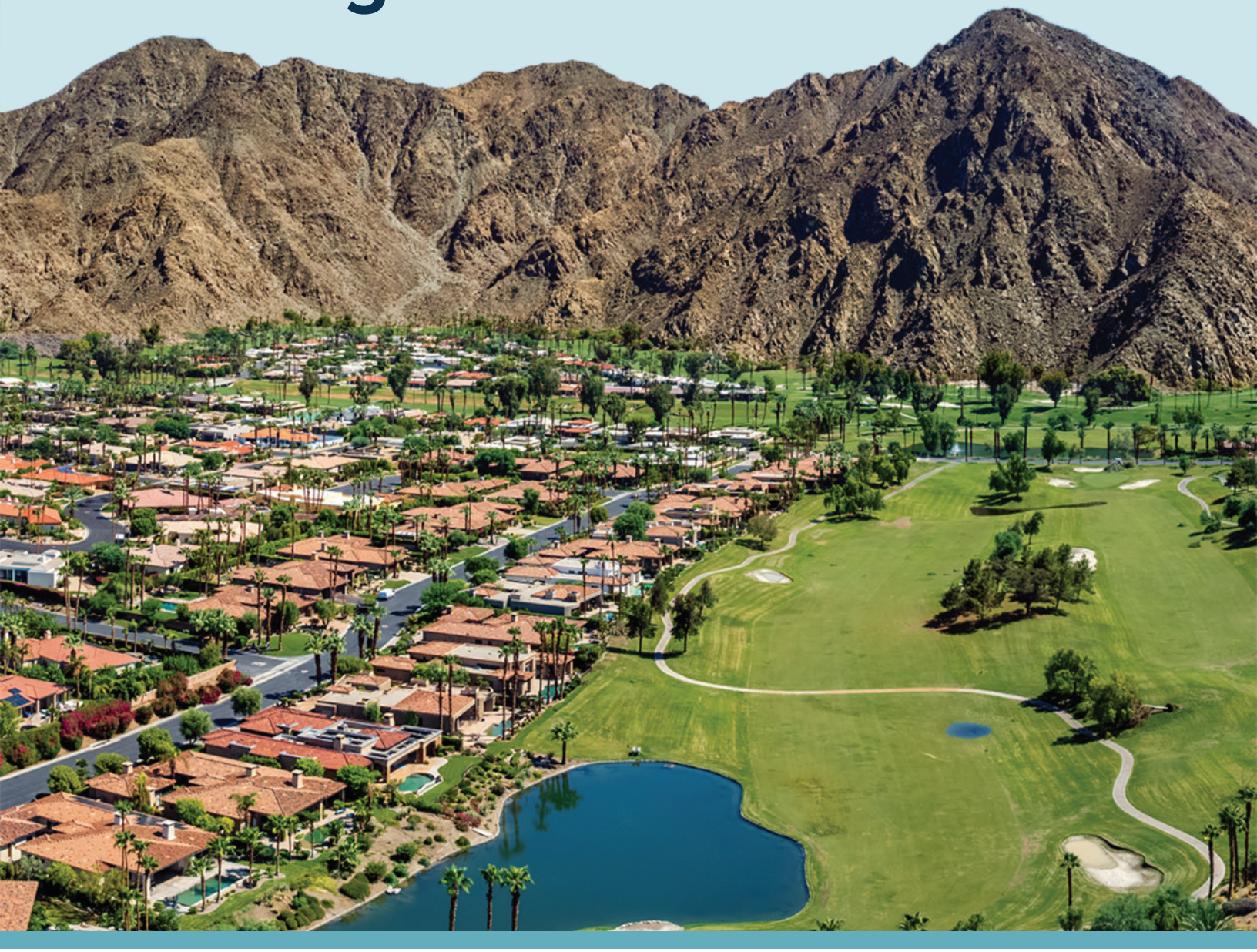
RINCON CONSULTANTS TODD GROUNDWATER

2025

Coachella Valley

Regional Urban Water **Management Plan**



WATER DISTRICT

DWA DESERT WATER AGENCY

COACHELLA WATER AUTHORITY & SANITARY DISTRICT SERVICE. VALUE. QUALITY.

INDIO

MSWD Mission Springs Water District

Myoma Dunes Water Co.

2025 Coachella Valley Regional Urban Water Management Plan

Prepared for:

Coachella Valley Water District
Coachella Water Authority
Desert Water Agency
City of Indio
Mission Springs Water District
Myoma Dunes Mutual Water Company

Final Draft

May 11, 2026

Prepared by:

TODD GROUNDWATER

RINCON CONSULTANTS

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Acronyms and Abbreviations

°C	Degrees Celsius
°F	Degrees Fahrenheit
AB	Assembly Bill
ACS	American Community Survey
ACWA	Association of California Water Agencies
AF	Acre Foot
AFY	Acre Feet per Year
AHHG	Area of Historic High Groundwater
AMI	Area Median Income
AMR	Automatic Meter Reader
AOB	Area of Benefit
APA	Administrative Procedures Act
AWAC	Alliance for Water Awareness and Conservation
AWWA	American Water Works Association
BDCC	Bermuda Dunes Country Club
BMP	Best Management Practice
CALWARN	California Water/Wastewater Agency Response Network
CAP	Central Arizona Project
CAT	Climate Action Team
CCF	Hundred Cubic Feet
CCR	California Code of Regulations
CDP	Census-Designated Place
CEQA	California Environmental Quality Act
CFS	Cubic Feet per Second
CG	Coverage Goal
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Irrigation System
COD	College of the Desert
CPS	City of Palm Springs
CPUC	California Public Utilities Commission
CRA	Colorado River Aqueduct
CRW	Colorado River Water
CSD	Coachella Sanitary District
CUWCC	California Urban Water Conservation Council
CVAG	Coachella Valley Association of Governments

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G. DWR UWMP Checklists

CVRWMG	Coachella Valley Regional Water Management Group
CVSC	Coachella Valley Stormwater Channel
CV-SNMP	Coachella Valley Groundwater Basin Salt and Nutrient Management Plan
CVWD	Coachella Valley Water District
CWA	Coachella Water Authority
CWC	California Water Code
DAC	Disadvantaged Community
DCFP	Delta Conveyance Facility Project
DCP	Drought Contingency Plan
DCR	DWR SWP Delivery Capability Report
DFW	California Department of Fish and Wildlife
DIP	Ductile Iron Pipe
DMM	Demand Management Measure
DRA	Drought Risk Assessment
DU	Dwelling Unit
DWA	Desert Water Agency
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EO	Executive Order
EPA	United States Environmental Protection Agency
ERNIE	Emergency Response Network of the Inland Empire
ESA	Endangered Species Act
ET	Evapotranspiration
ETAF	Evapotranspiration Adjustment Factor
ETo	Reference Evapotranspiration
EVRA	East Valley Reclamation Authority
Ft msl	Feet above mean sea level
GAC	Granulated Activated Carbon
GIS	Geographic Information System
GLC	Glorious Lands Company
GPCD	Gallons per Capita per Day
GPD	Gallons per Day
GPF	Gallons per Flush
GPM	Gallons per Minute
GPSCVB	Greater Palm Springs Convention and Visitors Bureau
GRF	Groundwater Replenishment Facility
GRP	Groundwater Replenishment Program

GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HCD	Housing and Community Development
HECW	High Efficiency Clothes Washer
HET	High Efficiency Toilet
HOA	Homeowner Association
IID	Imperial Irrigation District
IRWM	Integrated Regional Water Management
IX	Ion Exchange
LAFCO	Local Agency Formation Commission
LOC	Levels of Concern
MAF	Million Acre-Feet
MAFY	Million Acre-Feet per Year
MC-GRF	Mission Creek Groundwater Replenishment Facility
MCL	Maximum Contaminant Level
MDMWC	Myoma Dunes Mutual Water Company
MF	Multi-family
MG	Million Gallons
MGD	Million Gallons per Day
MHI	Median Household Income
MOU	Memorandum of Understanding
MSL	Mean Sea Level
MSWD	Mission Springs Water District
MTBE	Methyl Tertiary Butyl Ether
MVP	Mid-Valley Pipeline
MWD	Metropolitan Water District of Southern California
MWELO	Model Water Efficiency Landscape Ordinance
NEPA	National Environmental Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PCE	Perchloroethylene
PD-GRF	Palm Desert Groundwater Replenishment Facility
PFAS	Per- and Polyfluoroalkyl Substances
PHG	Public Health Goal
PSI	Pounds per Square Inch
PVC	Polyvinyl Chloride

PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement
QWEZ	Qualified Water Efficient Landscaper
RAC	Replenishment Assessment Charge
RAP	Regional Acceptance Process
RHNA	Regional Housing Needs Allocation
RIX	Rapid Infiltration and Extraction
RPA	Reasonable and Prudent Alternative
RUWMP	Regional Urban Water Management Plan
RV	Recreational Vehicle
RWQCB	Regional Water Quality Control Board
RWRF	Regional Water Reclamation Facility
RWTF	Recycled Water Treatment Facility
SB X7-7	Senate Bill 7 of Special Extended Session 7
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCSD	Salton Community Services District
SEIS	Supplemental Environmental Impact Statement
SGMA	Sustainable Groundwater Management Act
SF	Single Family
SNMP	Salt-Nutrient Management Plan
SOC	Synthetic Organic Chemicals
SOI	Sphere of Influence
STVR	Short-term Vacation Rental
SWP	State Water Project
SWR	Stormwater Resource
SWRCB	State Water Resources Control Board
TAF	Thousand Acre Feet
TAZ	Traffic Analysis Zone
TDS	Total Dissolved Solids
TCE	Trichloroethylene
TEL-GRF	Thomas E. Levy Groundwater Replenishment Facility
ULFT	Ultra-Low Flush Toilet
USBR	United States Bureau of Reclamation
USGS	United States Geological Survey
UV	Ultraviolet

UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
VOC	Volatile Organic Compound
VSD	Valley Sanitary District
WAS	Water Audit Software
WBIC	Weather Based Irrigation Controller
WEWAC	Water Education Water Awareness Committee
WSCP	Water Shortage Contingency Plan
WFF	Water Filtration Facility
WMWC	Whitewater Mutual Water Company
WRP	Wastewater Reclamation Plant
WRSC	Whitewater River Stormwater Channel
WSA	Water Service Area
WSS	Water Sense Specification
WTP	Water Treatment Plant
WUE	Water Use Efficiency
WWR-GRF	Whitewater River Groundwater Replenishment Facility
WWTP	Wastewater Treatment Plant

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Chapter 1 Introduction

This Coachella Valley Regional Urban Water Management Plan (RUWMP) has been prepared on behalf of the six urban water suppliers that serve customers in the Coachella Valley:

- Coachella Valley Water District (CVWD)
- Coachella Water Authority (CWA)
- Desert Water Agency (DWA)
- City of Indio (Indio)
- Mission Springs Water District (MSWD)
- Myoma Dunes Mutual Water Company (MDMWC)

These agencies have historically collaborated on planning efforts related to water resources and their efficient use in the Coachella Valley. Previous planning efforts have involved some or all of the agencies listed above, and some efforts have involved additional agencies such as the Valley Sanitary District (VSD). Relevant past and on-going efforts include:

- 2010 Coachella Valley Water Management Plan Update (2010 CVWMP Update)
- 2013 Mission Creek/Garnet Hill Subbasins Water Management Plan (2013 MC/GH WMP)
- 2015 Coachella Valley Salt and Nutrient Management Plan (2015 CV-SNMP)
- 2018 Coachella Valley Integrated Regional Water Management Plan and Stormwater Resource Plan (2018 IRWM/SWR Plan)
- 2020 Coachella Valley Regional Urban Water Management Plan (2020 RUWMP)
- 2022 Indio Subbasin Water Management Plan Update: SGMA Alternative Plan (2022 Indio Subbasin Alternative Plan Update)
- 2022 Mission Creek Subbasin Alternative Plan Update
- 2026 Coachella Valley Regional Water Resilience Plan (in progress)
- 2027 Indio Subbasin Water Management Plan Update: SGMA Alternative Plan (2027 Indio Subbasin Alternative Plan Update) (in progress)
- 2027 Mission Creek Subbasin Alternative Plan Update (in progress)
- 2027 Coachella Valley Salt and Nutrient Management Plan (in progress)

The RUWMP has been developed in coordination with the parallel planning efforts shown above. The RUWMP reporting scope is limited to water delivered for urban use through the potable and non-potable/recycled water distribution systems operated by the six participating agencies. The 2027 Alternative Plan Updates for the Indio Subbasin and the Mission Creek Subbasin have a broader scope, in that they consider all water uses in the region, including uses of groundwater, imported water, and local surface water by agriculture, golf courses, and other private pumpers. The Alternative Plan Updates also document how groundwater supplies are anticipated to respond over time to changes in pumping, groundwater replenishment using imported water, reductions in groundwater pumping through source substitution with non-potable sources, and other management activities. The demand projections in this RUWMP were aligned with the projected urban demand in the Alternative Plan Updates. The Alternative Plan Updates also consider supply conditions under several different supply acquisition scenarios, including the impacts of climate change on each source, while the RUWMP presents a forecast of future supplies of groundwater and non-potable/recycled water determined as the most probable supply portfolio given agreements currently in place. The Alternative Plan Updates are due to be submitted to the California Department of Water Resources (DWR) by January 1, 2027, while this RUWMP is due to be submitted to the DWR on July 1, 2026.

1.1 Purpose

The purpose of this RUWMP is to address Urban Water Management Plan (UWMP) requirements for all six agencies within the Coachella Valley. These requirements originated in California's Urban Water Management Planning Act (UWMP Act) of 1983 (Act) and have been expanded and updated with subsequent legislation. Agencies are required to prepare and submit an updated UWMP every five years to DWR. DWR then performs a review to verify that each UWMP addresses the requirements of the California Water Code (CWC). The 2025 UWMPs will report on water use through 2025 and are due to be submitted to DWR by July 1, 2026.

Although most agencies prepare an individual UWMP to submit to DWR, the CWC allows agencies to join together to prepare a RUWMP that will consolidate information and contribute to the achievement of efficient water use. The RUWMP must include all the same elements as an individual UWMP. Jointly preparing a RUWMP presents an opportunity for agencies to coordinate their efforts on demand projections, characterization of shared supplies, and planning for potential water shortages.

In January 2026, DWR produced a Final Urban Water Management Plan Guidebook 2025 (Guidebook) to assist water suppliers in UWMP preparation. This Guidebook reflects statutory and guidance updates made since the 2020 UWMP cycle. The Guidebook includes only minor updates, consisting primarily of clarifications, updated reporting tables, and guidance adjustments; no substantive new UWMP statutory requirements were added for the 2025 planning cycle. Changes to Senate Bill (SB) X7-7 requirements were introduced for the 2025 UWMP cycle, which requires water suppliers to report whether they met the 2020 conservation target as identified in the 2020 UWMP. Accordingly, the 2025 UWMP focuses on maintaining continuity with prior planning efforts and implementing updated guidance to support consistent and transparent reporting.

1.2 RUWMP Organization

This report has been organized to reflect the agencies' collaborative efforts in managing shared water resources, while still allowing each agency to meet its individual reporting requirements.

- Chapter 1 provides an introduction and reviews the purpose and organization of the RUWMP.
- Chapter 2 provides an overview of the participating agencies and their service areas.
- Chapter 3 provides a narrative description of water sources used in the region.
- Chapters 4 through 9 are individual agency chapters. Each agency's individual chapter is structured with the organization recommended in the Guidebook. For each agency, the elements of the individual chapter include:
    1. Introduction
    2. Plan Preparation
    3. Service Area Description
    4. Water Use Characterization
    5. SB X7-7 Baselines, 2020 Targets, and 2025 Reporting
    6. Water Supply Characterization
    7. Water Service Reliability and Drought Risk Assessment
    8. Water Shortage Contingency Plan
    9. Demand Management Measures
    10. Plan Adoption, Submittal, and Implementation
- Appendices provide supporting information and documentation used in preparation of the RUWMP.
- Each agency has prepared a Water Shortage Contingency Plan (WSCP) to be adopted by its governing board. These WSCPs are attachments to the RUWMP.

1.3 Plain Language Summary

This section provides an overview of the main topics covered in this RUWMP and explains how the six participating agencies in the Coachella Valley work together on regional water resources planning. Key elements include water supplies, water demands, drought risk, contingency planning, preparation and outreach. Each topic includes a summary of where the region's water comes from, how much water customers use now and are projected to use in the future, how reliable water supplies are during drought, and how the agencies will respond to water shortages through their WSCPs. It also describes the outreach conducted during preparation of the RUWMP and WSCPs.

1.3.1 Introduction

This RUWMP has been prepared on behalf of six water providers that serve customers in the Coachella Valley. The agencies include:

- Coachella Valley Water District (CVWD)
- Coachella Water Authority (CWA)
- Desert Water Agency (DWA)
- City of Indio (Indio)
- Mission Springs Water District (MSWD)
- Myoma Dunes Mutual Water Company (MDMWC)

These agencies work together on planning efforts related to water resources and their efficient use in the Coachella Valley.

The report is divided into two main sections. Chapters 1–3 contain regional content, including an introduction, profiles of the six participating agencies, and a summary of water supplies in the Coachella Valley. Chapters 4–9 focus on the individual participating agencies. Each agency chapter addresses how that participating agency meets its reporting requirements under the UWMP Act.

In addition to the RUWMP, each agency has prepared a WSCP. The WSCP describes how each agency would respond to a water shortage. These WSCPs are attachments to the RUWMP.

1.3.2 Water Supplies

The Coachella Valley Groundwater Basin is used by all six agencies as their primary source of supply for meeting municipal water demands (water used for typical household, business, and local government use). The basin serves as a large-scale storage reservoir that supports reliable supply and helps meet demand during dry-year conditions. In a typical year, groundwater pumping exceeds the amount of natural recharge from local rainfall and mountain snowmelt. CVWD and DWA replenish the basin with water imported from the Colorado River and the State Water Project (SWP).

The two subbasins in the Coachella Valley Groundwater Basin that are used to meet municipal water demands in the Coachella Valley are the Indio Subbasin and the Mission Creek Subbasin. Subbasins are portions of a larger groundwater basin – usually separated by faults. In both subbasins, the water agencies are developing updated plans to address long-term sustainable management of the groundwater basin. These plans, the 2022 Indio Subbasin Alternative Plan Update and the 2022 Mission Creek Subbasin Alternative Plan Update, were approved by DWR to meet the Sustainable Groundwater Management Act (SGMA) planning requirements as an alternative local plan to a Groundwater Sustainability Plan. While the RUWMP is focused on water used for municipal supply and recycled water used for golf irrigation, the Alternative Plans address all water use in the Valley, including surface water used for golf course irrigation and agricultural irrigation.

In addition to groundwater, some of the water suppliers use local stream water, convey non-potable water from the Coachella Canal, or have recycled water systems that provide highly treated wastewater for irrigation. Imported water is used for groundwater replenishment and meeting irrigation demands.

1.3.3 Water Demands

Each agency's chapter summarizes current water demand, reflecting the amount of water used by customers, and presents projected water use through 2050. These projections were developed considering variables including climate, population growth, and customer behaviors. Each agency's chapter outlines the Demand Management Measures (DMMs) implemented to encourage efficient water use. Through these programs since 2010, the agencies have seen significant reductions in water use by customers and have complied with water use reduction targets set by the State.

1.3.4 Drought Risk

Each agency's chapter presents a comparison of expected supplies and demands under future drought conditions. The agencies are committed to efficient water use and can implement their WSCPs to reduce demands as needed. However, the agencies anticipate being able to meet all demands through 2050, even through a near-term five-year dry period.

Thanks to the storage capacity of the groundwater basin, supplies are reliable from year to year because the agencies can pump enough groundwater to meet demands. In the longer term, reliability depends on the continued replenishment of the groundwater basin with imported water supplies. The agencies are working together to continue and expand replenishment programs.

1.3.5 Contingency Planning

If an extended drought or sudden event, for example an earthquake, impacted the agencies' ability to replenish the groundwater basin or provide enough water to meet all customer needs, the WSCP may need to be implemented. Each agency's WSCP defines six levels of shortage and outlines the actions that will be required of customers during each level. The six agencies aligned the actions in their plans as much as possible to maintain consistent requirements and messaging for customers throughout the Valley.

1.4 Preparation and Outreach

CWC §10620(d)(3), §10642, and §10621(b) requires agencies to perform outreach to cities and counties within their service area, the general public, and other interested parties during preparation of an UWMP.

Each of the RUWMP participating agencies held a public hearing in May or June 2026 where each agency's governing board adopted the RUWMP. Members of the public were encouraged to get involved in development of the RUWMP and WSCPs through the RUWMP website (https://www.cvrwmg.org/uwmp/), stakeholder email lists, and social media posts. The details of each agency's adoption are included in the individual agency chapters. The agencies received feedback from the community during public hearings for this RUWMP and the WSCPs.

Each agency made the draft plans available for public review and input, both on the RWUMP website and at their local offices. If the WSCPs need to be implemented during a water shortage, the agencies will evaluate how well they are working and consider making changes.

The CWC requires agencies to perform outreach to cities and counties within their service area, the general public, and other interested parties during preparation of an UWMP. In March 2026, formal notifications of RUWMP preparation were provided to the recipients identified in Table 1-1. Recipients were informed of the time and date for each agency's public hearing to consider feedback. Each agency then held a public hearing in May or June 2026 where each agency's governing board considered public comments and adopted the RUWMP and WSCPs. The details of each agency's adoption are included in the individual agency chapters.

Table 1-1. 2025 RUWMP Outreach Recipients

Type	Recipient
City	La Quinta
City	Indio (City of Indio)
City	Coachella (Coachella Water Authority)
City	Palm Desert
City	Cathedral City
City	Indian Wells
City	Rancho Mirage
City	Palm Springs
City	Desert Hot Springs
County	County of Riverside Transportation and Land Management Agency - Planning Department
County	Riverside County Flood Control and Water Conservation District
County	Riverside County Department of Environmental Health
County	Imperial County Planning and Development Services
County	Riverside County Department of Public Health
Tribal	Cabazon Band of Mission Indians
Tribal	Agua Caliente Band of Cahuilla Indians
Tribal	Torres Martinez Desert Cahuilla Indians
Tribal	Augustine Band of Cahuilla Indians
Tribal	Twenty-Nine Palms Band of Mission Indians
Tribal	Morongo Band of Mission Indians
Other	Coachella Valley Resource Conservation District
Other	Desert Valley Builders Association

1.5 Plan Type Identification

This RUWMP is the Coachella Valley RUWMP, a regional plan that also contains individual agency UWMPs as Chapters 4 – 9.

Table 1-2. Plan Identification

Select	Type of Plan	Name of Regional Alliance or RUWMP
☒	Individual UWMP	
☐	Water Supplier is also a member of a SB X7-7 Regional Alliance	
☒	Regional Urban Water Management Plan (RUWMP)	Coachella Valley RUWMP

Chapter 2 Agency Descriptions

The Coachella Valley lies in the northwestern portion of a great valley, the Salton Trough, which extends from the Gulf of California in Mexico northwesterly to the Cabazon area. This area lies primarily in Riverside County but also extends into small portions of northeastern San Diego County and northwestern Imperial County. The Colorado River enters this trough, and its delta has formed a barrier between the Gulf of California and the Coachella Valley. The Coachella Valley is ringed with mountains on three sides. On the west and north sides are the Santa Rosa, San Jacinto, and San Bernardino Mountains, which rise more than 10,000 feet above mean sea level (ft msl). To the northeast and east are the Little San Bernardino Mountains, which attain elevations of 5,500 ft msl. The Whitewater River and its tributaries, including the San Gorgonio River, Mission Creek, and Little and Big Morongo Creeks, and Box Canyon Wash, drain the major portion of the Valley.

The Coachella Valley is drained primarily by the Whitewater River, which conveys flows southwest along its natural alignment to the mid-Valley area where it converts to the Coachella Valley Stormwater Channel (CVSC). The CVSC is a man-made channel that conveys flows downstream of Point Happy to the Salton Sea. The Coachella Valley is characterized by low precipitation and high summer daytime temperatures. Water bodies in the Coachella Valley include the Salton Sea; Lake Cahuilla, a surface water reservoir which stores Colorado River water for agricultural and irrigation use; a collection of small ephemeral streams and creeks; and Whitewater River, an ephemeral stream in the western Coachella Valley.

Chapter 2 provides background information about the agencies participating in this RUWMP and other agencies involved in water resource planning in the Coachella Valley.

2.1 Agencies Participating in RUWMP

Background information on the six participating agencies is provided in the following sections. The jurisdictional service areas of the six participating agencies are shown in Figure 2-1.

2.1.1 Coachella Valley Water District

CVWD was formed in 1918 under the County Water District Act provisions of the California Water Code (CWC). In 1937, CVWD absorbed the responsibilities of the Coachella Valley Stormwater District that had been formed in 1915. CVWD now encompasses approximately 640,000 acres, mostly within Riverside County, also extending into northwestern Imperial County and northeastern San Diego County. CVWD is governed by a board of five directors, elected by district voters for a four-year term. Each director resides in and represents one of the district's five divisions and is elected by voters from that same division.

CVWD is a Colorado River water importer and a California State Water Project (SWP) contractor, bringing imported water supplies into the Valley for direct use and replenishment. The water-related services provided by CVWD include:

- **Domestic water delivery** – Delivery of approximately 123,000 AF for 110,000 service connections across two domestic water service areas.
- **Irrigation water delivery and agricultural drainage** – Serving agricultural, golf, and municipal irrigation users with non-potable Colorado River water.
- **Wastewater collection, treatment, and recycling** – Collection of 19,000 AFY of wastewater for treatment at five water reclamation plants (WRPs). WRP-7 and WRP-10 provide tertiary treatment and deliver a blend of non-potable Colorado River water and recycled water to adjacent irrigation customers.
- **Stormwater and flood protection** – Regional flood control provided by Whitewater River/CVSC along with 173 miles of stormwater protection channels.
- **Groundwater replenishment facilities (GRFs)** – Recharge capacity for Colorado River and SWP exchange water at the three GRFs include: 25,000 AF at Palm Desert GRF, 40,000 AF at Thomas E. Levy GRF, 511,000 AF at Whitewater River GRF, and 40,000 AF at Mission Creek GRF.

2.1.2 Coachella Water Authority

The City of Coachella was incorporated in 1946 and encompasses approximately 32 square miles in the eastern Coachella Valley. The City's sphere of influence encompasses 53 square miles. The City is governed by a five-member City Council. The water-related services provided by the City include domestic water delivery, wastewater collection and treatment, and local drainage control.

The Coachella Water Authority (CWA) is the water division of the City of Coachella. CWA provides potable water service in the City of Coachella, using groundwater for approximately 7,500 AF delivered to 9,600 service connections.

The Coachella Sanitary District (CSD) is the sanitation division of the City of Coachella. CSD operates a 4.5 million gallons per day (MGD) design capacity wastewater treatment facility. Currently, CSD discharges treated wastewater to the CVSC. In 2020, CSD participated in a regional feasibility study to determine the best available and most cost-effective opportunity to implement a recycled water program and has plans to develop a water reuse system in the future.

CWA and CSD are wholly owned component units of the City of Coachella with the Boards of Directors comprised of the five members currently elected to the Coachella City Council.

2.1.3 Desert Water Agency

DWA is a public agency of the State of California and was formed in 1961 to import water from the SWP in an effort to provide a reliable local water supply. In 1968, DWA entered the retail water business by purchasing the Cathedral City Water Company and Palm Springs Water Company. DWA covers an area of about 325 square miles, including portions of unincorporated Riverside County, Cathedral City, and Palm Springs. DWA is governed by a five-member Board of Directors, elected by residents within DWA boundaries.

DWA manages a domestic water system, a wastewater collection system, a recycled water system, and groundwater recharge facilities. As a SWP Contractor, DWA co-owns and operates the Whitewater GRF and Mission Creek GRF with CVWD. DWA's potable water system delivers a combination of local surface water from Snow, Falls, and Chino Creeks and groundwater for approximately 34,000 AFY across 24,000 service connections throughout 425 miles of pipeline. In 1988, DWA opened its DWA WRP which treats secondary wastewater from the Palm Springs WWTP to tertiary levels for distribution to local irrigation customers. Additionally, DWA produces electrical power with two hydroelectric generating plants and two photovoltaic solar installations.

2.1.4 City of Indio

Incorporated in 1930, the City of Indio was the first city in the Coachella Valley. The City encompasses approximately 38 square miles with a sphere of influence that adds approximately 22 square miles north of Interstate 10. The City is governed by a five-member City Council. The water-related services provided by the City include domestic water delivery and local drainage control. Wastewater collection and treatment within the City is provided by Valley Sanitary District.

The City of Indio's water department is responsible for ensuring a safe and reliable means of water supply to City residents within its water department's service area. The department operates under the direction of the City's executive leadership and City Council. As one of the fastest growing municipal utilities in the Coachella Valley, Indio uses groundwater for approximately 20,000 AF delivered to 24,000 service connections.

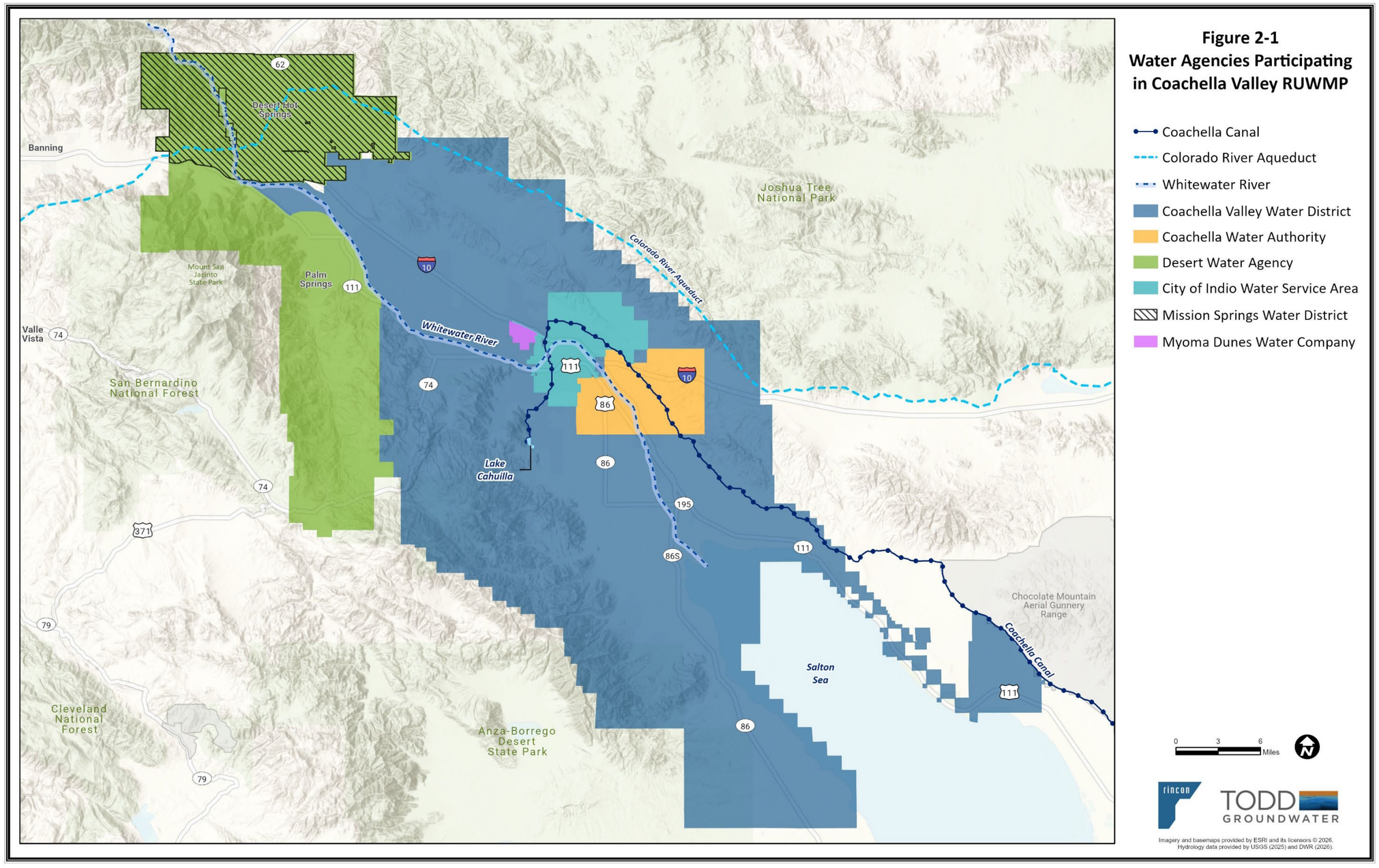


Figure 2-1 Water Agencies Participating in Coachella Valley RUWMP

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2.1.5 Mission Springs Water District

MSWD is a public water and wastewater agency organized under the County Water District Law, through the California Water Code. MSWD began as a mutual water company in the late 1940s. By 1953, it had evolved into an incorporated entity, the Desert Hot Springs County Water District. Its name was changed to Mission Springs Water District in 1987. MSWD's service area consists of 135 square miles, including the City of Desert Hot Springs, a portion of the City of Palm Springs, and ten smaller communities in Riverside County, including North Palm Springs, West Palm Springs Village and Palm Springs Crest. MSWD is governed by a five-member board, elected from five separate divisions, for a four-year term.

MSWD provides water delivery of approximately 7,900 AFY for 13,500 service connections through three independent production and distribution systems. MSWD also provides wastewater collection and treatment services to more than 9,200 customers through two wastewater collection and treatment systems.

In 2024, MSWD completed the Nancy Wright Regional Water Reclamation Facility (WRF), a 1.5 MGD plant that expands treatment capacity and supports future recycled water use. MSWD also operates a 1.0 mega-watt solar facility to help offset approximately 25% of energy consumption for its water and wastewater operations.

2.1.6 Myoma Dunes Mutual Water Company

MDMWC is a retail urban water supplier that was established in 1953 to provide potable water service to the community of Bermuda Dunes. MDMWC has grown over the years, and it now delivers approximately 3,900 AFY of groundwater to more than 2,500 service connections in the Bermuda Dunes area. MDMWC is a mutual water company that is governed by a four-member Board of Directors.

2.2 Other Agencies and Entities

Several other individual agencies and coalitions are active in regional water management activities within the Valley, as described below.

2.2.1 Valley Sanitary District

Valley Sanitary District (VSD) is a California Special District governed by a locally elected Board of Directors. It was founded in 1925 and is governed by the California Sanitary Act of 1923. Although not a water supplier, VSD provides wastewater collection and treatment services for the City of Indio and most customers in Indio's water service area. Currently, VSD discharges treated wastewater to the CVSC and provides a small amount of treated wastewater for on-site irrigation.

Indio is evaluating the potential to expand recycled water use in partnership with VSD.

2.2.2 Agua Caliente Water Authority

The Agua Caliente Band of Cahuilla Indians has established the Agua Caliente Water Authority (ACWA) to manage and regulate the Tribe's groundwater. ACWA has established a system of groundwater permits and fees and engages in groundwater monitoring activities.

2.2.3 City of Palm Springs

The City of Palm Springs operates a wastewater treatment plant that treats wastewater collected within the city. Approximately 75 percent of the treated wastewater is sent to the DWA WRP for further treatment and reuse. The balance is discharged onsite to unlined percolation ponds near the confluence of Palm Canyon Wash and Whitewater River.

2.2.4 Coachella Valley Regional Water Management Group

The Coachella Valley Regional Water Management Group (CVRWMG) is a collaborative effort between CVWD, CWA, DWA, Indio, MSWD, and VSD to implement an Integrated Regional Water Management (IRWM) Plan to address the water resources management in the Coachella Valley. Following formation of

the CVRWMG and formal recognition of the Coachella Valley IRWM Region (Region) by DWR, the CVRWMG developed the first Coachella Valley IRWM Plan in 2010. The CVRWMG prepared updates to the IRWM Plan in 2014 and 2018. The 2018 IRWM Plan also addressed the requirements for a Stormwater Resources (SWR) Plan and therefore is referred to as the 2018 IRWM/SWR Plan. The IRWM/SWR Plan presents an integrated regional approach for addressing water management issues through a process that identifies and implements projects that yield combined benefits for water supplies, water quality, and natural resources. See the CVRWMG website (https://www.cvrwmg.org/) for more information.

2.2.5 Indio Subbasin Groundwater Sustainability Agencies

Four water agencies located within the Indio Subbasin of the Coachella Valley Groundwater Basin—CVWD, CWA, DWA, and Indio—are each exclusive Groundwater Sustainability Agencies (GSAs) that oversee and manage groundwater in their respective service areas. The agencies collaborated to submit the 2010 CVWMP Update as an alternative to a Groundwater Sustainability Plan (GSP) under SGMA. The 2010 CVWMP Update was approved by DWR as a functionally equivalent alternative to a GSP in July 2019. These agencies then developed the 2022 Indio Subbasin Alternative Plan Update, which was approved by DWR in June 2024. The 2027 Indio Subbasin Alternative Plan Update is underway and addresses updated demand forecasting, scenario modeling, and evaluation of compliance with local groundwater sustainability criteria[1].

2.2.6 Mission Creek Subbasin Management Committee

The three water agencies located within the Mission Creek Subbasin of the Coachella Valley Groundwater Basin—comprised of CVWD, DWA, and MSWD—have formed a Management Committee. CVWD and DWA are each exclusive GSAs that oversee and manage groundwater in their respective service areas. The three agencies collaborated to submit the 2013 MC/GH WMP as an alternative to a GSP under SGMA. The 2013 MC/GH WMP was approved by DWR as a functionally-equivalent alternative to a GSP in July 2019. These agencies then developed the 2022 Mission Creek Subbasin Alternative Plan Update, which was approved by DWR in June 2024. The 2027 Mission Creek Subbasin Alternative Plan Update is underway and addresses updated demand forecasting, scenario modeling, and evaluation of compliance with local groundwater sustainability criteria[2].

[1] For information on the 2027 Indio Subbasin Alternative Plan Update, see https://www.indiosubbasinsgma.org
[2] For information on the 2027 Mission Creek Subbasin Alternative Plan Update, see http://www.missioncreeksubbasinsgma.org

Chapter 3 Regional Sources of Supply

Each of the six water suppliers has its own portfolio of water sources that it uses to meet demands. Available supplies are grouped into the principal categories listed below and are described in the following sections:

- Groundwater from the Indio and Mission Creek Subbasins
- Colorado River water imported through the Coachella Canal
- State Water Project water exchanged for Colorado River water delivered by the Metropolitan Water District (MWD) of Southern California through the Colorado River Aqueduct
- Local surface water from Snow, Falls, and Chino Creeks
- Recycled water from CVWD and DWA WRPs

3.1 Groundwater

Groundwater is the principal source of municipal water supply in the Coachella Valley. The Coachella Valley Groundwater Basin (DWR Basin No. 7-21) encompasses the entire floor of the Coachella Valley and consists of four subbasins as identified in DWR Bulletin 118[3]:

- Indio
- Mission Creek
- Desert Hot Springs
- San Gorgonio Pass

The United States Geological Survey (USGS) recognizes a fault-bounded portion of the western end of the Indio Subbasin as the Garnet Hill Subbasin[4]. This report refers to the area as the Garnet Hill Subarea of the Indio Subbasin, consistent with the designation in DWR Bulletin 118. The water suppliers in this RUWMP have groundwater wells that produce water from the Indio Subbasin, including the Garnet Hill Subarea, the Mission Creek Subbasin, and the San Gorgonio Pass Subbasin. Water from the Desert Hot Springs Subbasin is higher in temperature and salinity and is not used for potable purposes.

3.1.1 Basin Description

The Coachella Valley Groundwater Basin (Basin), as described in DWR Bulletin 118, is bounded on the east by the non-water-bearing crystalline rocks of the San Bernardino and Little San Bernardino Mountains, and on the west by the crystalline rocks of the San Jacinto and Santa Rosa Mountains. The trace of the Banning fault on the north side of San Gorgonio Pass forms the upper boundary. At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana drainage area.

The southern boundary is formed primarily by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea running between the Santa Rosa Mountains and Mortmar. Between the Salton Sea and Travertine Rock, at the base of the Santa Rosa Mountains, the lower boundary coincides with the Riverside-Imperial County Line. South of the southern boundary, at Mortmar and at Travertine Rock, the subsurface materials are predominantly fine grained and low in permeability; although groundwater is present, it is not readily extractable. A zone of transition exists at these boundaries; to the north, the subsurface materials are coarser and provide groundwater more readily.

Precipitation on the Basin floor is typically less than five inches per year. Natural recharge to the Basin is primarily from the recharge of mountain-front runoff. The Whitewater River is the major drainage course in the Basin. Perennial flows exist in the portion of this drainage within the San Bernardino Mountains. Along

[3] The subbasin is identified as the Indio Subbasin in DWR Bulletin 118. However, the subbasin is identified as the Whitewater River Subbasin by the USGS. This report identifies the subbasin as the Indio Subbasin.
[4] This report identifies fault boundaries in the Coachella Valley Tyley, S.J. (1974), Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California (USGS Water-Supply Paper 2027).

the Coachella Valley floor, these perennial flows become ephemeral in the northern reach of the drainage, referred to as the Whitewater River Stormwater Channel (WRSC). Recharge to the Basin occurs in the Whitewater River and other tributaries to the Basin, in the WRSC, at constructed recharge facilities, through percolation of irrigation return flows, and as subsurface inflow from the surrounding mountains and groundwater basins (CVWD 2025a).

In 1964, DWR estimated that the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million acre-feet (AF) of water in the first 1,000 feet below the ground surface, much of which originated as runoff from the surrounding mountains. Of this total, approximately 29.8 million acre-feet (MAF) was stored in the Indio Subbasin. However, the amount of water in the Basin decreased over the years because groundwater pumping to serve urban, rural, and agricultural development in the Coachella Valley withdrew water at a rate exceeding the Basin's recharge. Since the late 2000's, the Basin has seen significant groundwater level increases relative to historic lows. These increases are the result of the high volumes of direct replenishment that has occurred at GRFs, increased conservation and water use efficiency, and projects that serve imported water for irrigation to reduce groundwater pumping. Replenishment and conservation have also resulted in increasing water levels in the Mission Creek Subbasin.

Although there is interflow of groundwater throughout the groundwater basin, fault barriers, constrictions in the Basin profile, and areas of low permeability limit and control movement of groundwater. Based on these factors, the Basin has been divided into subbasins and subareas as described by DWR in 1964 and the USGS in 1971. The boundaries between subbasins are generally based upon faults that are effective barriers to the lateral movement of groundwater. Minor subareas have also been delineated, based on one or more of the following geologic or hydrologic characteristics: type of water bearing formations, water quality, areas of confined groundwater, forebay areas, groundwater flow divides, and surface drainage divides.

Four primary subbasins include Indio, Mission Creek, Desert Hot Springs, and San Gorgonio Pass. The subbasins, with their groundwater storage reservoirs, are defined without regard to water quantity or quality. They delineate areas underlain by formations which readily yield the stored water through water wells and offer natural reservoirs for the regulating water supply. The groundwater subbasins are shown in Figure 3-1.

3.1.1.1 Indio Subbasin

The Indio Subbasin underlies a major portion of the Coachella Valley floor and encompasses approximately 400 square miles. Beginning approximately one mile west of the junction of State Highway 111 and Interstate 10, the Indio Subbasin extends southeast approximately 70 miles to the Salton Sea. The Indio Subbasin underlies the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca.

The Indio Subbasin is divided for management into the West Valley and the East Valley. The East Valley lies southeast of a line generally extending from Point Happy (a rocky outcrop of the Santa Rosa Mountains near Washington Street and Highway 111) northeast to the Indio Hills near Jefferson Street, and the West Valley is northwest of this line.

Generally, the West Valley, which includes the cities of Palm Springs, Cathedral City, Rancho Mirage, Indian Wells and Palm Desert, has a predominately resort/recreation-based economy that relies on groundwater as its principal water source. In the West Valley portion of the Indio Subbasin, underlying sediment profiles consist of coarse sand and gravel with minor amounts of clay. The aquifer in this area is unconfined, allowing water that is applied on the ground surface to percolate directly into the underlying aquifer system, making recharge simple and efficient.

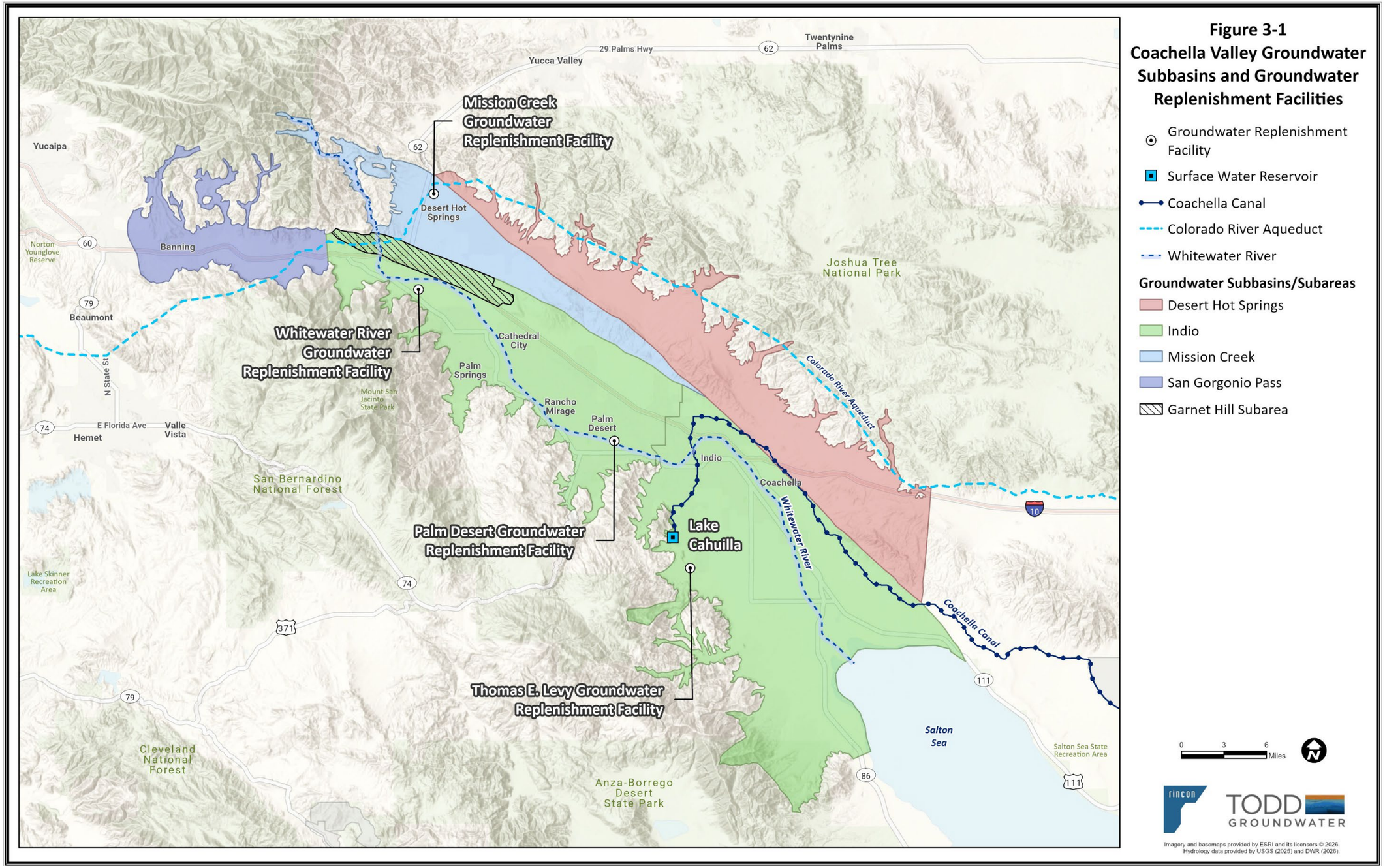


Figure 3-1. Coachella Valley Groundwater Subbasins and Groundwater Replenishment Facilities

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CVWD and DWA collaborate to provide groundwater replenishment in the West Valley. Recharge activities with SWP exchange water commenced in 1973 at the Whitewater River GRF, north of Palm Springs. Recharge volumes at this location vary widely with the availability of SWP exchange water, delivered by MWD via the Colorado River Aqueduct. DWR allocates SWP annually based on hydrologic conditions within the Feather River and Sacramento-San Joaquin River watersheds, the source for SWP water. Groundwater levels in the Indio Subbasin have increased or stabilized since recharge commenced. Although some areas of the mid-valley are still experiencing a decline in groundwater levels, the rates of decline have been generally decreasing, and many areas have seen increases.

The East Valley includes the cities of Coachella, Indio and La Quinta and the communities of Bermuda Dunes, Mecca, and Thermal. Much of the East Valley has an agricultural-based economy utilizing groundwater and Colorado River water imported through the Coachella Canal. Some portions of the East Valley are underlain by several impervious clay layers (an aquitard) that impedes groundwater recharge. From about Indio southeasterly to the Salton Sea, the Subbasin contains increasingly thick layers of silt and clay, especially in the shallower portions. These silt and clay layers, which are remnants of ancient lakebed deposits, impede the percolation of water applied for irrigation and limit groundwater replenishment opportunities to the westerly fringe in this area of the subbasin.

The historical fluctuations of groundwater levels in the East Valley of the Indio Subbasin indicate a steady decline prior to 1949. With the importation of Colorado River water from the Coachella Canal after 1949, the demand on the groundwater basin declined in the East Valley and groundwater levels rose sharply. Water levels in the deeper aquifers of the East Valley rose from 1950 to about 1980. However, in the early 1980s, water levels in the East Valley began declining again, at least partly due to increasing urbanization and groundwater usage. In 2009, CVWD implemented large-scale replenishment activities in the East Valley at the Thomas E. Levy GRF that have resulted in increasing water levels. Artesian conditions have been observed in wells near Thomas E. Levy GRF, signaling a return to historical conditions. Recharge activities began at Palm Desert GRF in early 2019.

Conservation and source substitution with Canal water and recycled water are also ongoing strategies to manage groundwater levels throughout the Indio Subbasin.

3.1.1.2 Mission Creek Subbasin

Water-bearing materials underlying the Mission Creek upland comprise the 76-square mile Mission Creek Subbasin. The Subbasin is bounded on the south by the Banning fault and on the north and east by the Mission Creek fault. The Subbasin is bordered on the west by non-water bearing rocks of the San Bernardino Mountains. To the southeast are the Indio Hills, which consist of the semi water-bearing Palm Springs Formation.

Both the Mission Creek fault and the Banning fault are effective barriers to groundwater movement, as evidenced by offset water levels, fault springs, and changes in vegetation. The wells drilled in this Subbasin pass through unconsolidated recent alluvium (sands and gravels forming the uppermost geologic formation in the subbasin) and semi-consolidated and interbedded sands, gravels and silts. Although these Pleistocene deposits are the main source of water, water also occurs in recent alluvium where the water table is sufficiently shallow.

The Mission Creek Subbasin is considered an unconfined aquifer with a saturated thickness of 1,200 feet or more and an estimated total storage capacity on the order of 2.6 MAF. The Subbasin is naturally recharged by surface and subsurface flow from the Mission Creek, Dry, and Big Morongo Washes, the Painted Hills, and surrounding mountain drainages. Irrigation return flows and discharges from municipal and individual subsurface wastewater disposal systems also contribute to recharge.

Due to overdraft conditions in the Mission Creek Subbasin, CVWD and DWA began construction of facilities to replenish groundwater with imported SWP exchange water, delivered by MWD via the Colorado River Aqueduct. The Mission Creek GRF was completed in June 2002 and in December 2002, DWA and CVWD began replenishment activities in the Mission Creek Subbasin. The current replenishment program is effectively increasing water levels throughout most of the Subbasin.

CVWD, DWA, and MSWD jointly developed the 2013 MC/GH WMP pursuant to a 2004 settlement agreement. This agreement and the 2003 Mission Creek Groundwater Replenishment Agreement between

CVWD and DWA (amended in 2014) specify that the available SWP supply will be allocated between the Mission Creek Subbasin and West Valley of the Indio Subbasin in proportion to the amount of groundwater produced or surface water diverted from the respective management areas during the preceding year.

3.1.1.3 Desert Hot Springs Subbasin

The Desert Hot Springs Subbasin is bounded on the north by the Little San Bernardino Mountains and to the south by the Mission Creek and San Andreas faults. The San Andreas fault separates the Desert Hot Springs Subbasin from the Indio Subbasin and serves as an effective barrier to groundwater flow. Due to poor quality and low groundwater yields, all potable water demand for development within the Subbasin is supplied by wells in the Mission Creek Subbasin. However, wells in the Miracle Hill area produce geothermally heated groundwater that supplies spa resorts in Desert Hot Springs. Private wells in the Fargo Canyon Subarea have historically been used for agricultural irrigation.

3.1.1.4 Garnet Hill Subarea

The area between the Garnet Hill fault and the Banning fault, named the Garnet Hill Subarea of the Indio Subbasin, was considered a distinct subbasin by the USGS because of the effectiveness of the Banning and Garnet Hill faults as barriers to groundwater movement. The area is bounded on the north by the Banning fault, on the south by the Garnet Hill fault, and on the east and west by non-water to semi-water bearing rocks. DWR considers the area to be part of the Indio Subbasin.

MSWD constructed Well 33 in the Garnet Hill Subarea with production since 2007. MSWD, CVWD, and DWA jointly developed the 2013 MC/GH WMP that included this subarea. For SGMA compliance, the area is considered to be part of the Indio Subbasin. However, the 2022 and 2027 Mission Creek and Indio Subbasin Alternative Plan Updates both address the Garnet Hill Subarea, sharing data and management actions. Currently, CVWD includes a portion of the Garnet Hill Subarea in its West Whitewater Area of Benefit replenishment assessment program. Separately, DWA has a replenishment assessment program in its portion of the Garnet Hill Subarea.

3.1.1.5 San Gorgonio Pass Subbasin

A portion of the MSWD western service area and DWA jurisdictional area is underlain by the San Gorgonio Pass Subbasin, which is the westernmost subbasin in the Coachella Valley Groundwater Basin. This Subbasin is bounded on the north by the San Bernardino Mountains and by semi-permeable rocks, and on the south by the San Jacinto Mountains. A surface drainage divide between the Colorado River and South Coastal Hydrologic Study Areas bounds the subbasin on the west. The eastern boundary is formed by a bedrock constriction that creates a groundwater cascade into the Indio Subbasin.

The San Gorgonio Pass Subbasin is subdivided into a series of storage units that include the Banning Bench, Banning, Beaumont, and Cabazon storage units. The Cabazon storage unit is located near the western MSWD boundary. The Cabazon storage unit, which encompasses approximately 11 square miles, is recharged naturally with runoff from the adjacent San Jacinto and San Bernardino Mountains. MSWD operates four wells in the Cabazon storage unit. Other groundwater users in the Cabazon storage unit include Desert Hills Premium Outlets, Morongo Band of Mission Indians, and Cabazon Water District.

3.1.2 Groundwater Management

Historically, groundwater overdraft was a concern for much of the Coachella Valley. CVWD and DWA jointly operate GRFs in the West Valley of the Indio Subbasin and in the Mission Creek Subbasin, and CVWD operates GRFs in the East Valley of the Indio Subbasin. These programs have had a significant beneficial effect on groundwater overdraft. To recover the cost of replenishment activities, a Replenishment Assessment Charge (RAC) is applied to all non-exempted groundwater production. These RACs are calculated and managed separately by each agency for each of their Areas of Benefit (AOBs).

After recognizing that declining water levels in the 1990s could affect water reliability, CVWD adopted the 2002 Coachella Valley Water Management Plan (CVWMP) to address groundwater overdraft. The 2010 CVWMP Update and subsequent 2022 Indio Subbasin Alternative Plan Update identified a series of projects and management actions to reverse overdraft and improve basin conditions. Projects constructed

since the CVWMP was adopted include the Thomas E. Levy GRF in La Quinta, the Palm Desert GRF, and the Mid-Valley Pipeline, which conveys Coachella Canal water to the mid-valley where it can be delivered directly or mixed with recycled water from WRP-7 and WRP-10 to meet irrigation demands of golf courses and HOAs in the Indian Wells-Palm Desert-Rancho Mirage area.

As noted above, CVWD and DWA began replenishment operations at the Mission Creek GRF in 2002. In addition, CVWD, DWA, and MSWD completed and adopted the 2013 MC/GH WMP to address groundwater overdraft. The subsequent 2022 Mission Creek Subbasin Alternative Plan Update identified projects and management actions to reverse overdraft and improve basin conditions. Projects constructed in the Subbasin include septic to sewer conversion, installation of additional monitoring wells, and construction of the Nancy Wright Regional WRF in 2024, providing the treatment capacity needed to complete removal of all legacy septic tank systems throughout its service area and produce recycled water for irrigation use.

Additional programs focusing on conversion of groundwater pumpers to recycled and imported Coachella Canal water over the next ten years are intended to prevent future overdraft within the Basin. During extended drought periods when SWP exchange water deliveries for replenishment are reduced, continued groundwater pumping could result in short-term overdraft. Reduced replenishment could result in lower groundwater levels, which are expected to recover when normal supply conditions resume. Short-term reductions in replenishment due to droughts are not expected to affect long-term supply reliability.

3.1.2.1 Sustainable Groundwater Management Act

In 2014, the California Legislature enacted SGMA, a package of three bills (AB 1739, SB 1168, and SB 1319), that empowers local agencies to sustainably manage groundwater resources. SGMA defines sustainable groundwater management as the management of groundwater supplies in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.

A local agency, combination of local agencies, or county may establish a GSA. The GSA(s) must develop and implement a GSP that considers all beneficial uses and users of groundwater in the basin. GSAs must develop GSPs with measurable objectives and minimum thresholds that ensure basin sustainability by 2042. A basin may be managed by a single GSP or multiple coordinated GSPs. A basin can be managed by an alternative to a GSP if approved by DWR.

With respect to Coachella Valley, DWR designated the Indio and Mission Creek Subbasins (both non-adjudicated subbasins) and San Gorgonio Pass Subbasin (partially adjudicated) as medium priority subbasins, subject to SGMA, while the Desert Hot Springs Subbasin (non-adjudicated) was designated as a very low priority subbasin. In 2015, CVWD elected to become a GSA for the portions of the Indio and Mission Creek Subbasins within CVWD's service areas. As GSA for these areas, CVWD collaborated with DWA, Indio, and CWA as the Indio Subbasin GSAs to submit the 2010 CVWMP Update as an Alternative Plan for the Indio Subbasin. The Alternative Plan was submitted to DWR in 2016 and approved in 2019. Consistent with SGMA, which requires five-year updates, the 2022 Indio Subbasin Alternative Plan was submitted to DWR in 2021 and approved in 2024. A 2027 Indio Subbasin Alternative Plan Update is currently underway. The Indio Subbasin Alternative Plan Update is available at https://www.indiosubbasinsgma.org.

Similarly, CVWD, DWA, and MSWD collaborated to submit the 2013 MC/GH WMP as an Alternative Plan for the Mission Creek Subbasin. The Alternative Plan was submitted to DWR in 2016 and approved in 2019. Consistent with SGMA, which requires five-year updates, the 2022 Mission Creek Subbasin Alternative Plan Update was submitted to DWR in 2021 and approved in 2024. A 2027 Mission Creek Subbasin Alternative Plan Update is currently underway. The Mission Creek Subbasin Alternative Plan Update is available at http://www.missioncreeksubbasinsgma.org.

DWA is a member agency within the San Gorgonio Pass (SGP) Subbasin and participates in regional groundwater management efforts for that area. However, this RUWMP does not address or include the San Gorgonio Pass Subbasin area, as the SGP Subbasin lies outside the geographic scope of the planning area.

3.1.3 Groundwater Quality

Groundwater quality in the Coachella Valley varies with depth, proximity to faults and recharge basins, presence of surface contaminants, and other hydrogeologic or human factors. Ongoing basin-wide groundwater quality monitoring verifies that drinking water supplied from groundwater wells complies with State and federal drinking water quality standards.

3.1.3.1 Regulated Contaminants

In some locations, Maximum Contaminant Level (MCL) exceedances have been reported for arsenic and the newly-enacted chromium-6 MCL of 10 parts per billion. Arsenic and chromium-6 are naturally occurring in some portions of the groundwater basin.

California has long-standing MCL standards for arsenic in drinking water. The last revision was established in November 2008 at 0.010 mg/L. Currently, the Division of Drinking Water is investigating the technological and economic feasibility of lowering the MCL below the current California and federal MCL and closer to the Public Health Goal (PHG)[5]. Where it is an issue, water suppliers are meeting the MCL for arsenic through a combination of treatment and blending approaches.

Chromium-6, also known as Cr-6 and hexavalent chromium, is a natural element that occurs in groundwater in the Coachella Valley due to the erosion of natural deposits. Until 2024, Cr-6 levels were controlled in California drinking water by existing regulations that include a MCL of 50 parts per billion for total chromium, which is twice as stringent as the national MCL for total chromium of 100 parts per billion established by the United States Environmental Protection Agency (US EPA). In April 2024, the State Water Resources Control Board (SWRCB) adopted a new MCL for Cr-6 of 10 micrograms per liter (µg/L), or 10 parts per billion. Compliance with the new MCL is required by October 1, 2026 for water systems with 10,000 or greater connections. Smaller water systems must be compliant by October 1, 2027 (1,000 to 9,999 connections) or October 1, 2028 (fewer than 1,000 connections). Water systems in the Coachella Valley are working towards compliance via combinations of wellhead treatment, blending, deactivation of wells producing high Cr-6 groundwater, and drilling of replacement wells in areas of lower Cr-6.

3.1.3.2 Emerging Contaminants

Notification Levels (NLs) and MCLs for specific per- and polyfluoroalkyl substances (PFAS) are being phased in over the next half decade. PFAS are emerging anthropogenic contaminants regulated by the US EPA and SWRCB Division of Drinking Water. A timeline has been set requiring initial monitoring by 2027, which Coachella Valley agencies are in the process of completing. Compliance with MCLs and public notification are required by 2029. In May 2025, the US EPA announced its intent to rescind MCLs for all PFAS compounds except for PFOS and PFOA and extend the compliance timeline to 2031. A finalized ruling formalizing these changes is expected in Spring 2026. Local water suppliers are following a similar process as has been applied for Cr-6 regulations, and similar mitigation measures are expected.

3.1.3.3 Salt and Nutrient Management

Total dissolved solids (TDS) and salinity of the groundwater basin is also an important water quality parameter. Efforts are being made to analyze this through the Coachella Valley Salt and Nutrient Management Plan (CV-SNMP). In 2015, CVWD, DWA, and Indio submitted a CV-SNMP to the Colorado River Regional Water Quality Control Board (RWQCB) for approval. On February 19, 2020, the RWQCB provided their findings on the 2015 CV-SNMP along with their recommendations to address five areas, including monitoring program, modeling, assimilative capacity, antidegradation analysis, and implementation plan.

The RWQCB encouraged the local water and wastewater agencies to restart the process of developing a SNMP to sustainably manage salts and nutrients from all sources. In response, Coachella Valley water and wastewater agencies, including CVWD, DWA, Indio, CWA and CSD, Myoma Dunes Mutual Water Company, Valley Sanitary District, Mission Springs Water District, and City of Palm Springs (collectively,

[5] More information and updates on the pre-rulemaking action for arsenic MCLs can be found here: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/arsenic-mcl-revision.html

CV-SNMP Agencies) agreed to prepare a CV-SNMP Development Workplan. CV-SNMP Agencies worked with RWQCB staff to develop an accepted CV-SNMP Development Workplan that defines the technical approach and schedule to prepare an updated CV-SNMP. The CV-SNMP Development Workplan includes an updated groundwater monitoring program and a technical scope of work to update the 2015 CV-SNMP and recommend numeric TDS objectives across the groundwater basin. The RWQCB accepted the CV-SNMP Development Workplan in 2021. The approved technical scope of work is currently underway (CV-SNMP 2025).

3.2 Imported Water

The Coachella Valley has access to two sources of imported water:

- **Colorado River Water.** CVWD has rights to receive Colorado River water delivered through the Coachella Canal, a branch of the All-American Canal.
- **State Water Project (SWP) Water.** CVWD and DWA are SWP Contractors. As such, they have rights to receive water from the SWP, which conveys water from northern California south to Lake Perris and other endpoints. There is no physical infrastructure to convey SWP water to the Coachella Valley, however, so CVWD and DWA have entered into exchange agreements with MWD for Colorado River water. MWD's Colorado River Aqueduct conveys water from the Colorado River through the Coachella Valley and eventually to Lake Mathews. The exchange agreements allow MWD to deliver Colorado River water to CVWD and DWA for use in groundwater replenishment at Whitewater River GRF and Mission Creek GRF. In exchange, MWD accepts SWP water from DWR's California Aqueduct that would have gone to CVWD and DWA.

The imported water sources and conveyance infrastructure are shown in Figure 3-2.

3.2.1 Colorado River Water

The 123-mile Coachella Canal was completed in 1948 and began delivering water to the Coachella Valley in 1949. Colorado River water is diverted into the All-American Canal at Imperial Dam, located on the Colorado River 18 miles upstream of Yuma, Arizona. From the All-American Canal, water is then diverted into the Coachella Canal approximately 20 miles west of Yuma at "Drop 1" of the All-American Canal. The Coachella Canal conveys water northward into the eastern Coachella Valley along the east side of the Salton Sea, continuing northerly past Mecca and Thermal to Indio, where the Coachella Canal bends westerly, then continues southwesterly to La Quinta, where it flows into Lake Cahuilla. Constructed by CVWD in 1968, Lake Cahuilla is the Coachella Canal's terminal reservoir which provides operational storage of Colorado River water. The Coachella Canal and Lake Cahuilla system distributes water for irrigation to more than 63,000 acres of farmland in the eastern Coachella Valley through nearly 500 miles of subsurface delivery laterals (CVWD 2025b).

The Colorado River is managed and operated in accordance with the "Law of the River", the collection of interstate compacts, federal and State legislation, various agreements and contracts, an international treaty, a U.S. Supreme Court decree, and federal administrative actions that govern the rights to use of Colorado River water within the seven Colorado River Basin states and Mexico. The Colorado River Compact, signed in 1922, apportioned the waters of the Colorado River Basin between the Upper Basin (Colorado, Wyoming, Utah, and New Mexico) and the Lower Basin (Nevada, Arizona, and California). The Colorado River Compact allocates 15 million acre-feet per year (MAFY) of Colorado River water as represented in Figure 3-3 below: 7.5 MAFY to the Upper Basin and 7.5 MAFY to the Lower Basin, plus up to 1 MAFY of surplus supplies. In addition to those allocations, Mexico was allocated 1.5 MAFY. The Lower Basin's water was further apportioned among the three Lower Basin states by the Boulder Canyon Project Act in 1928 and the 1964 U.S. Supreme Court decree in Arizona v. California. Arizona's basic annual apportionment is 2.8 MAFY, California's is 4.4 MAFY, and Nevada's is 0.3 MAFY.

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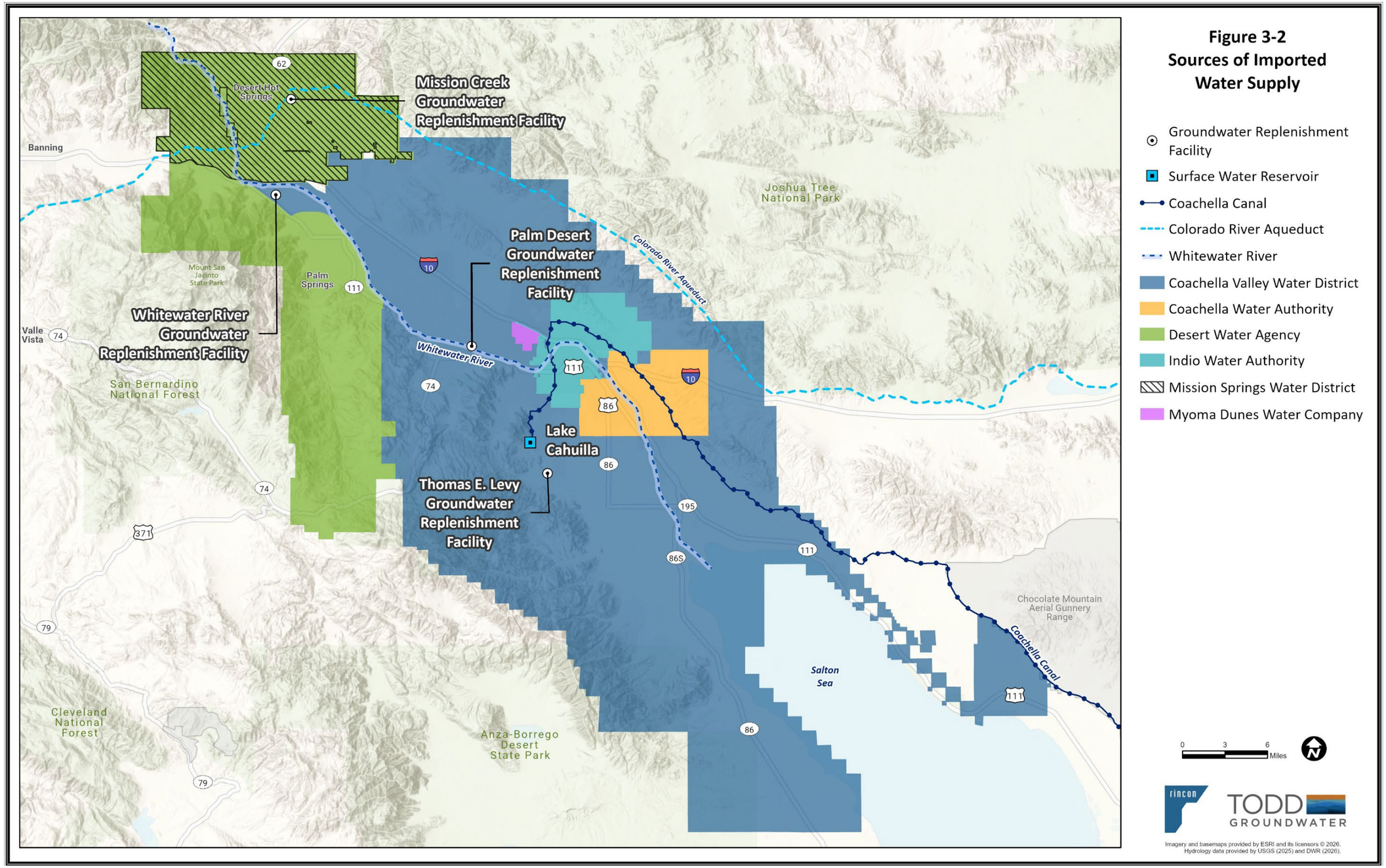


Figure 3-2. Sources of Imported Water Supply

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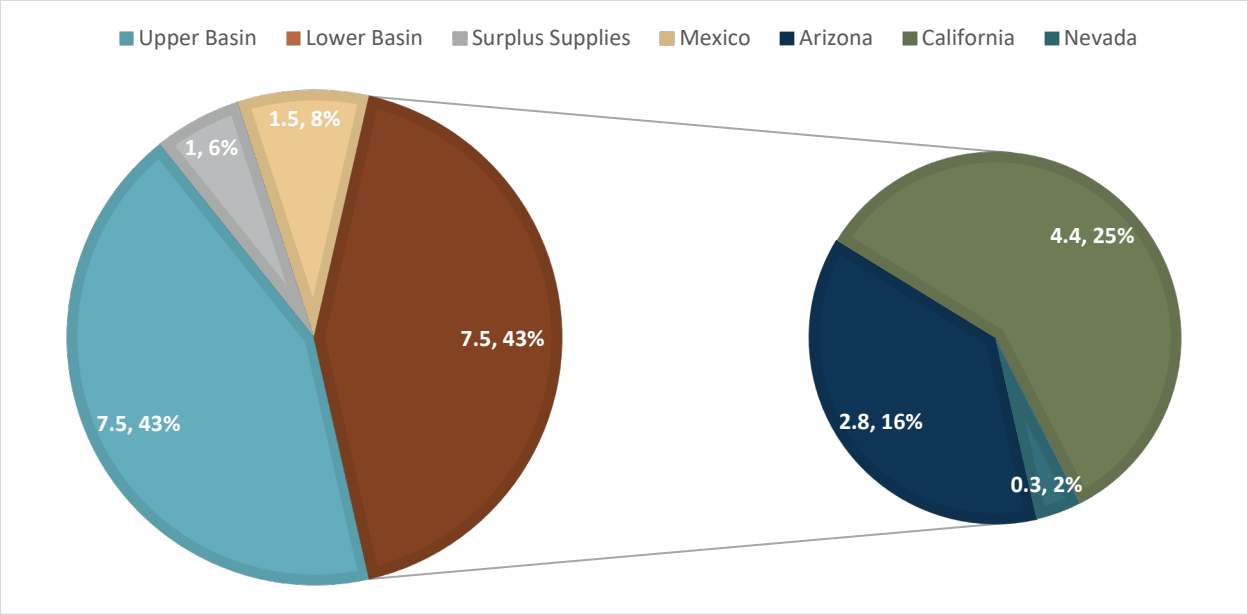


Figure 3-3. Colorado River Compact Allocations (MAFY)

The service area for Colorado River water delivery under CVWD's contract with the U.S. Bureau of Reclamation (USBR) is defined as Improvement District No. 1 (ID-1) which encompasses most of the East Valley and a portion of the West Valley north of Interstate 10. Under the 1931 California Seven Party Agreement, CVWD has water rights to Colorado River water as part of the first 3.85 MAFY allocated to California. CVWD is in the third priority position along with IID.

At the time of publication of this RUWMP, USBR and the seven Colorado River Basin states are actively negotiating a new operating plan to replace the 2007 Interim Guidelines, which expires at the end of 2026. This post-2026 planning effort is focused on addressing hydrologic variability, climate change, and the need for coordinated operations of Lake Powell and Lake Mead. While the process may result in new shortage-sharing agreements or conservation programs, it does not alter the existing priority structure established under the California Seven-Party Agreement. USBR seeks to have an agreement in place prior to the October 1, 2026 start of the 2026-2027 Water Year.

3.2.1.1 Quantification Settlement Agreement

In October 2003, CVWD, IID, MWD, and the San Diego County Water Authority (SDCWA) along with the State and federal governments executed the QSA. The QSA quantifies the Colorado River water allocations of California's contractors for the next 75 years and provides for the transfer of water between agencies. Under the QSA, CVWD has a base allotment of 330,000 AFY. In accordance with the QSA, CVWD has entered into water transfer agreements with MWD and IID that increase CVWD supplies as shown in Table 3-2.

Table 3-1. CVWD Colorado River Water Budget under the Quantification Settlement Agreement

Component	2025 Amount (AFY)	2027 – 2050 Amount (AFY)
Base Entitlement	330,000	330,000
1988 MWD/IID Approval Agreement	20,000	20,000
First IID/CVWD Transfer	50,000	50,000
Second IID/CVWD Transfer[1]	48,000	53,000
Less Coachella Canal Lining (to SDCWA)	-26,000	-26,000
Less Miscellaneous/Indian Present Perfected Rights	-3,000	-3,000
QSA Diversions	419,000	424,000
MWD/CVWD SWP Transfer[2]	35,000	35,000
Total Allocations	**454,000**	**459,000**
Less Conveyance Losses and Regulatory Water[3]	-22,700	-22,950
Total Deliveries to CVWD	**426,300**	**436,050**

Notes:
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. Conveyance losses and regulatory water are estimated at approximately 5% of total diversions, consistent with CVWD Engineer's Reports (CVWD 2025a).

The QSA requires most of the Colorado River water to be delivered at Imperial Dam, via the All-American Canal to the Coachella Canal. The 35,000 AFY MWD/CVWD SWP Transfer can also be delivered to the Whitewater Turnout on the Colorado River Aqueduct, which allows for replenishment at Whitewater River GRF. Deliveries at Whitewater Turnout are subject to a supplemental energy charge for Colorado River Aqueduct pumping. The 35,000 AFY supply is not subject to SWP delivery reliability; rather, it is a fixed annual delivery. Either MWD or CVWD may request a reduction or elimination of delivery in a given year subject to mutual consent. However, QSA water may not be used in the Mission Creek GRF. Delivery of this water to the Whitewater River GRF began in 2010, with annual volumes fluctuating based on available supply conditions. The 2019 Second Amendment to the Delivery and Exchange Agreement with MWD authorizes CVWD to receive 15,000 AF of the 20,000 AF allocated under the 1988 MWD/IID Approval Agreement at the Whitewater River GRF through 2026.

3.2.1.2 Canal Water Deliveries

CVWD manages the Coachella Canal and associated water delivery system used to irrigate over 63,000 acres of farmland in the East Valley. The Coachella Canal was built during the period from August 1938 to June 1948, with construction halted during World War II. Construction of the underground distribution system was initiated in 1948 and completed in 1954. The Canal distribution system was constructed and engineered to follow the natural slope of the land to allow the free flow of water using the force of gravity. Irrigation pumps are used to deliver water to elevated areas within the availability zones. This lateral distribution system delivers water to farmers at the highest point of every 40 acres of eligible land within CVWD 's ID-1 service area.

In addition to agricultural irrigation, Canal water is currently delivered to 30 golf courses and other irrigators in the Indio Subbasin in-lieu of groundwater to reduce groundwater pumping. Golf courses served with Canal water are required to meet at least 80 percent of their water needs with Colorado River water. Average Canal deliveries for 2020 – 2024 for the East Golf customers totaled 20,160 AFY. CVWD is working with two additional golf courses to connect to the Canal water distribution system.

3.2.1.3 Mid-Valley Pipeline

The Mid-Valley Pipeline (MVP) is a pipeline distribution system to deliver Canal water to the Mid-Valley area for golf course and landscape irrigation. Some customers receive only Canal water, while others receive a blend of Canal water and recycled water from WRP-7 or WRP-10. This source substitution effort reduces groundwater pumping for large-scale landscape uses.

Construction of the first phase of the MVP from the Coachella Canal in Indio to CVWD's WRP-10 in Palm Desert (6.6 miles in length) was completed in 2009. Currently, six golf courses receive Canal water directly from the MVP. An additional 15 golf courses receive a blend of Canal water from the MVP and recycled water from CVWD's WRP-10 and three golf courses receive a blend of Canal water and recycled water from CVWD's WRP-7. Average Canal deliveries for 2020 – 2024 for the MVP customers totaled 12,340 AFY.

Implementation of later phases will expand the non-potable system to be able to serve approximately 38 golf courses in the Rancho Mirage-Palm Desert-Indian Wells area that currently use groundwater as their primary source of supply with Canal water or a blend with recycled water. Golf courses connected to the MVP or non-potable system are required to meet at least 80 percent of their water needs with non-potable water.

A total of six homeowner's associations (HOAs), schools, churches and other municipal buildings also receive a blend of recycled water and Canal water for irrigation from the MVP, WRP-7, and WRP-10. From 2020 – 2024, the MVP, WRP-7, and WRP-10 non-potable systems have served approximately 41,500 AFY of Canal water and 9,760 AFY of CVWD's recycled water.

3.2.1.4 Oasis In-Lieu Recharge Project

The Oasis In-Lieu Recharge Project is an in-lieu source-substitution project identified in the 2010 CVWMP Update that will supply approximately 32,000 AFY to offset groundwater pumping for agricultural irrigation. System improvements required to convey water to these lands include construction of gravity and pressurized pipelines, surface reservoirs, pump stations, and related modifications and connections to the existing irrigation system. Owned and operated by CVWD, Phase 1 of the Oasis In-Lieu Recharge Project has been constructed and is delivering 12,000 AFY to agricultural customers. The Oasis project serves only agricultural customers and is not addressed further in this RUWMP.

3.2.1.5 Drought Responses

In response to the prolonged drought conditions on the Colorado River, USBR is leveraging two tools to ensure that elevations in Lake Powell and Lake Mead remain above critical operating levels through 2026 to satisfy delivery obligations and power generation needs. First, USBR is seeking to change their authority under the 2007 Interim Guidelines by formally opening the Supplemental Environmental Impact Statement (SEIS) to increase flexibility in the rules for system operations through 2026. Concurrently, USBR is also funding the Lower Colorado River Basin Conservation and Efficiency Program (LC Conservation Program) to promote voluntary and compensated efforts to increase the conserved water volume in Lake Mead. The LC Conservation Program consists of three components, which include funding for short and long-term water conservation efforts (CVWD 2025a).

CVWD has taken a proactive approach in its Colorado River drought response, with actions including:

- Conserving 9,083 AF of Colorado River water in 2022, through replenishment curtailment (USBR and CVWD, 2022); this program was funded under the 500+ Plan.
- Actively engaging in the SEIS discussions.
- Responding with four applications to the LC Conservation Program. To date, three agreements for two different conservation programs have been executed with USBR under the LC Conservation Program. These two programs conserve Colorado River water by:
    - Ceasing replenishment at CVWD's Thomas E. Levy GRF (USBR and CVWD, 2023 and 2025) for a total volume up to 140,000 AF between 2023 and 2026, and

- Incentivizing Canal water users to fallow agricultural lands within CVWD's service area (USBR and CVWD, 2024) for a total volume of up to 30,000 AF between 2024 and 2026.

Much of the current focus on the Colorado River has been on crafting a successor agreement to the 2007 Interim Guidelines, which expire at the end of 2026. As part of this process, USBR issued a notice on October 20, 2023, to develop alternatives for analysis in the draft SEIS for the future operations of the Colorado River. CVWD worked with its Basin States partners in an attempt to arrive at a consensus 7-states alternative in 2023 and early 2024. Due to the wide difference in opinions on operations that could not be bridged between the Upper Basin States (Colorado, New Mexico, Utah and Wyoming) and the Lower Basin States (Arizona, California and Nevada) by the submittal deadline (early March 2024), two separate alternative proposals were provided to USBR for analysis. CVWD will continue to work with its Basin States partners to seek a consensus solution to provide operational certainty in the successor agreement (CVWD 2025a).

3.2.2 State Water Project Exchange

The SWP is the nation's largest state-owned and operated power generator and water storage and delivery system, consisting of a collection of reservoirs, pipelines, canals, power plants, and hydroelectric power facilities operated by DWR. The SWP was designed to deliver up to 4.18 MAFY of water to 29 SWP Contractors throughout California who serve over 27 million Californian homes, businesses, and 750,000 acres of farmland. CVWD and DWA are two SWP Contractors who entered into a water supply contract with DWR in the early 1960s for a base allocation of SWP water, commonly known as their "Table A allocation". CVWD and DWA do not have a physical connection to the SWP system, which terminates at Lake Perris in western Riverside County. Instead of direct SWP deliveries, CVWD and DWA exchange SWP water with MWD for an equal amount of Colorado River water delivered via the Colorado River Aqueduct (CVWD 2025a).

DWA and CVWD initially contracted with the State of California for SWP water in 1962 and 1963, respectively. CVWD and DWA's initial contractual Table A allocations were 23,100 AFY and 38,100 AFY, respectively. However, CVWD and DWA have since executed agreements with other SWP Contractors for additional Table A water for a maximum of 138,350 AFY and 55,750 AFY, respectively (a total of 194,100 AFY). These totals are shown in Table 3-3.

Table 3-2. State Water Project Allocations to CVWD and DWA (AFY)

Agency	Original SWP Table A	Tulare Lake Basin Transfer #1	Tulare Lake Basin Transfer #2	MWD Transfer	Berrenda-Mesa Transfer	Current Total Table A
CVWD	23,100	9,900	5,250	88,100	12,000	138,350
DWA	38,100	0	1,750	11,900	4,000	55,750
Total	**61,200**	**9,900**	**7,000**	**100,000**	**16,000**	**194,100**

Each year, DWR determines the amount of water available for delivery to SWP Contractors based on hydrology, reservoir storage, the requirements of water rights licenses and permits, water quality, and environmental requirements for protected species in the Sacramento-San Joaquin Delta. The available supply is then allocated according to each SWP Contractor's updated Table A amount (including both their original allocation and subsequent transfers). CVWD and DWA jointly manage their combined SWP Table A amounts, allocating costs in proportion to total groundwater production within the West Valley of the Indio Subbasin and the Mission Creek Subbasin Areas of Benefit, within their respective service areas.

3.2.2.1 SWP Exchange and Advance Delivery Agreements

In 1984, CVWD and DWA entered into an Advance Delivery Agreement with MWD whereby MWD could store up to 600,000 AF of Colorado River water in the Coachella Valley Groundwater Basin as an advance delivery of SWP exchange water. This agreement was later amended to increase the maximum pre-delivery amount to 800,000 AF. MWD can deliver SWP exchange water to CVWD and DWA as wet water or as a

deduction from its Advance Delivery storage account. The existing Exchange and Advance Delivery Agreements were updated and consolidated in 2019 into a single amended and restated agreement.

The 2019 Exchange and Advance Delivery Agreement notes that:

- CVWD and DWA entered into separate exchange agreements with MWD in 1967 under which CVWD and DWA deliver their SWP water to MWD, and in exchange MWD delivers a like amount of Colorado River Water to CVWD and DWA.
- In 1984, the three parties entered into the Advance Delivery Agreement, which allowed MWD to deliver Colorado River water in advance to be credited against its future water exchange obligations.
- In 2003, the parties entered the 2003 Exchange Agreement, which amended the 1983 Exchange Agreements and the Advance Delivery Agreement. It also provided for the transfer of 100,000 AFY of MWD's Table A amount to CVWD and DWA in exchange for a like quantity of MWD's Colorado River water. The agreement also provided MWD an annual option to call-back the 100,000 AF transfer under certain conditions.
- The purposes of the 2019 Exchange and Advance Delivery Agreement were to make necessary updates, end MWD's right to call back 100,000 AFY of Table A water, and allow MWD to defer certain Colorado River deliveries to CVWD and DWA.

Negotiations are currently underway with MWD, CVWD, and DWA to extend the Exchange and Advance Delivery Agreement to 2085 to coincide with SWP Contract extension.

The amount of water that has been pre-delivered is accounted for and reported annually in the Engineer's Reports on Water Supply and Replenishment prepared by CVWD and DWA. At the end of 2025, MWD's balance in its Advance Delivery storage account was 374,404 AF.

MWD and CVWD have a separate agreement for delivery and exchange of 35,000 AF. This agreement was first created in 2003 and then amended in 2015, 2019, and 2025. The 2025 Third Amendment extended the delivery period to 2035 and committed to working toward a long-term extension to 2077 provided the Exchange and Advance Delivery Agreement has been extended to 2085. The Third Amendment also updated the delivery, billing, and payment terms.

3.2.2.2 Supplemental Water

Occasionally, high flows in the SWP system create conditions where all the water cannot be completely stored in the SWP's San Luis Reservoir. The un-stored water is known as Article 21 water, which DWR makes available to SWP Contractors who have the ability to take delivery during these conditions. This water is typically stored in the SWP Contractor's own system, including through groundwater recharge, and does not count toward their Table A allocation. The most recent delivery of Article 21 water occurred in 2023 for 13,599 AF[6]. Similar to the SWP arrangement, CVWD and DWA exchange this water with MWD for Colorado River water.

3.2.2.3 SWP Reliability

DWR prepares a biennial SWP Delivery Capability Report to assist SWP Contractors and local planners in evaluating the availability and reliability of SWP supplies. The Draft 2025 Delivery Capability Report, released in December 2025, provides updated estimates of SWP delivery capability under both existing and future climate conditions. These estimates are intended to support long-term planning efforts, including the preparation of 2025 UWMPs.

The Draft 2025 Delivery Capability Report builds upon and refines methodological changes introduced in prior reports, including the use of an "Adjusted Historical Hydrology" dataset that better reflects recent climate conditions. This dataset replaces the traditional historical hydrology baseline and is based on a 100-year simulation period (Water Years 1922–2021), with the earlier 70 years statistically adjusted to match

[6] 2023 is the most recent Article 21 delivery which can be referenced from the 2024-2025 Engineer's Report here https://www.cvwd.org/ArchiveCenter/ViewFile/Item/1086

the hydrologic characteristics of the most recent 30 years. This approach accounts for observed shifts in precipitation patterns, runoff timing, and reservoir inflows due to climate change.

Under existing conditions, the Draft 2025 Delivery Capability Report estimates the long-term average annual SWP Table A delivery at 2,234 thousand acre-feet (TAF), or approximately 54% of the maximum Table A amount (4,133 TAF)[7]. This represents an increase from the 2,202 TAF (53%) reported in the 2023 DCR[8], primarily due to the updated hydrology and modeling refinements.

To assess future reliability, the Draft 2025 Delivery Capability Report continues to focus on the three climate change scenarios centered on 2043, representing 50%, 75%, and 95% levels of concern (LOC). These scenarios incorporate projected increases in temperature, changes in precipitation intensity, and sea level rise. Under these scenarios, average annual Table A deliveries are projected to decline to 1,993 TAF (48%) under the 50% LOC, 1,902 TAF (46%) under the 75% LOC, and 1,770 TAF (43%) under the 95% LOC.

The Draft 2025 Delivery Capability Report also updates estimates for single dry year conditions. Under existing conditions, the lowest modeled single-year Table A delivery is 237 TAF (6%), which occurred in 1977. This is consistent with historical minimum allocations of 8% in 2014 and 10% in 2021. DWR uses a 50% exceedance hydrologic forecast for setting initial annual allocations, with adjustments made throughout the water year as conditions evolve.

In addition to Table A deliveries, DWR evaluates Article 21 water (interruptible surplus water) availability. The Draft 2025 Delivery Capability Report also forecasts a decreased likelihood of Article 21 deliveries over the long-term average. Article 21 deliveries remain minimal during dry years.

As part of the Indio Subbasin and Mission Creek Subbasin planning efforts, the RUWMP agencies are evaluating potential future scenarios that reflect the Draft 2025 Delivery Capability Report reliability estimates. These scenarios incorporate potential climate change impacts and are being analyzed in the Alternative Plan Updates currently under development.

3.2.2.4 Yuba Accord

In 2008, CVWD and DWA entered into separate agreements with DWR for the purchase and conveyance of supplemental SWP water under the Yuba River Accord Dry Year Water Purchase Program (Yuba Accord). This program provides dry year supplies through a water purchase agreement between DWR and Yuba County Water Agency, which settled long-standing operational and environmental issues over instream flow requirements for the lower Yuba River. Yuba Accord water transfers could include both surface water and groundwater substitution transfers for an estimated total of up to 140,000 AFY through 2050. The amount of water available for purchase varies annually and is allocated among participating SWP Contractors based on their Table A amounts. Typically, CVWD and DWA receive some minimal amount of Yuba Accord water, averaging 633 AFY for CVWD and 147 AFY for DWA from 2008 – 2024.

3.2.2.5 Rosedale – Rio Bravo Transfers

In 2008, CVWD entered into an agreement with Rosedale-Rio Bravo Water Storage District (Rosedale Rio-Bravo) for a one-time transfer of 10,000 AF of GLC water intended for a property development located in Riverside County within CVWD's boundary. In 2012, CVWD entered into an Assignment Agreement with GLC to take over GLC's water rights for the term of the 2005 Water Supply Agreement between GLC and Rosedale Rio-Bravo. The Assignment Agreement provides a total of 252,500 AF to CVWD from Rosedale Rio-Bravo through 2035. CVWD also entered into a letter agreement with MWD in 2012 for the delivery and exchange of up to 16,500 AFY of non-Table A SWP water that Rosedale Rio-Bravo provides to CVWD. The water from Rosedale Rio-Bravo is delivered to CVWD as exchange water from MWD at the Whitewater River GRF.

In 2020, CVWD finalized a supplemental letter agreement with Rosedale Rio-Bravo and a Point of Delivery Agreement with DWR that increased the limit on the amount Rosedale Rio-Bravo can deliver to CVWD in

[7] For more information on the 2025 Draft Delivery Capability Report visit https://data.cnra.ca.gov/dataset/5be1b39d-6e2b-43a6-ae51-ee6a23fb5990/resource/5d238ff5-899b-4357-8835-5b043f61f5da/download/draft_dcr25_mainreport_final_2025-12-17.pdf
[8] For more information on the 2023 Delivery Capability Report visit https://data.cnra.ca.gov/dataset/a3bb1ddd-624b-4c3d-95e7-2aa6b3bf2b5b/resource/92356681-957a-48ee-97c4-529d25b9dbb2/download/final_dcr2023_v2.pdf

any one year (from 16,500 to 20,000 AFY) but does not change the total volume delivered during the life of the agreement through 2035. The remaining balance of Rosedale water available to CVWD through 2035 is 130,500 AF, which is approximately 13,050 AFY from 2026 – 2035.

3.2.2.6 Delta Conveyance Project

The Delta Conveyance Project is a State project intended to improve SWP reliability and result in increased deliveries in the future. The existing SWP water conveyance facilities in the Sacramento-San Joaquin Delta (Delta), which include Clifton Court Forebay and the Banks Pumping Plant, enable DWR to divert water to the California Aqueduct. The Delta Conveyance Project would construct and operate new conveyance facilities in the Delta, primarily a new tunnel to bypass existing natural channels used for conveyance. New intake facilities would be located in the north Delta along the Sacramento River between Freeport, CA and the confluence with Sutter Slough. A new tunnel would convey water from the new intakes to the existing Banks Pumping Plant and potentially the federal Jones Pumping Plant, both in Byron, CA in the south Delta. The new facilities would provide an alternate location for diversion of water from the Delta and would be operated in coordination with the existing south Delta pumping facilities.

Construction of the Delta Conveyance Project would improve water supply reliability for SWP Contractors by addressing in-Delta conveyance, with its myriad of constraints. Because the SWP currently relies on the Delta's natural channels to convey water, it is vulnerable to earthquakes, climate change, and pumping restrictions established to protect in-stream species and habitats. Certain pumping restrictions in the south Delta can prevent the SWP from reliably capturing water when it is available, especially in wet weather. The Delta Conveyance Project would add new diversions in the north Delta to promote a more resilient and flexible SWP in the face of unstable future conditions. Combined with the current through-Delta method, the addition of Delta Conveyance Project facilities is referred to as "dual conveyance" because there would be two complimentary methods to divert and convey water.

The Delta Conveyance Project is currently in its pre-construction phase and in May 2024, interim funding for pre-construction costs for 2026-2027 was requested from participants. Currently, CVWD's participation in the Delta Conveyance Project is 3.78% (14,900 AFY) and DWA's participation is 1.52% (5,900 AFY), resulting in a total anticipated increase in SWP reliability of 20,800 AFY. While this is not a new or additional source of supply, CVWD and DWA anticipate that delivery of an additional 20,800 AFY of their Table A amounts will support the existing replenishment programs and overall groundwater sustainability.

3.2.2.7 Sites Reservoir

The Sites Reservoir project would construct 1.5 MAF off-stream storage to capture and store stormwater flows from the Sacramento River for dry year releases. Sites Reservoir would be situated on the west side of the Sacramento Valley, approximately 10 miles west of Maxwell, CA. When operated in coordination with other Northern California reservoirs such as Shasta, Oroville, and Folsom, which function as the backbone to both the SWP and the Central Valley Project, Sites Reservoir would increase flexibility and reliability of statewide water supplies in drier periods. In 2019, CVWD and DWA both entered into an agreement with the Sites Project Authority for the next phase of planning for the Sites Reservoir.

Since execution of the 2019 agreement, the Sites Project Authority has advanced the Sites Reservoir project into the implementation phase. In August 2023, the California Water Commission conditionally awarded the project $875 million using Proposition 1 Water Storage Investment Program (WSIP) funding. In August 2025, an additional $218.9 million in Proposition 1 funding was allocated to the Sites Reservoir project as an inflationary adjustment, bringing the total maximum eligibility WSIP funding to $1.094 billion. Environmental review under CEQA and NEPA was completed between 2022 and 2023, allowing the project to advance to final design, right-of-way acquisition, and permitting. Construction is anticipated to begin by early 2027, subject to completion of remaining approvals and financing.

3.3 Local Surface Water

The Coachella Valley drainage area is approximately 65 percent mountainous and 35 percent typical desert valley with alluvial fan topography buffering the valley floor from the steep mountain slopes. The mean annual precipitation ranges from 44 inches in the San Bernardino Mountains to less than 3 inches at the

Salton Sea. Longer duration, lower intensity rainfall events tend to have higher infiltration rates, but runoff and flash flooding can result from different types of storms. Otherwise, there is little or no flow in surface drainages along the floor of the Coachella Valley. Baseflow does sustain some perennial surface flow in several drainages with high elevation headwaters in the San Jacinto and San Bernardino Mountains. These flows recharge the Coachella Valley aquifer system at mountain front locations, but surface flows typically cease at short distances into the Subbasins.

The Mission Creek runs from the San Bernardino and Little San Bernardino mountains in the northwest and flows southeast to the Whitewater River. Mission Creek flows to the valley floor on a consistent basis, but the stream usually disappears underground a short distance from its entrance into the greater Mission Creek Subbasin near Highway 62. While the principal surface water features in the Mission Creek and Desert Hot Springs Subbasins directly contribute to groundwater recharge, they are not sufficiently reliable to be used directly for municipal, industrial, or agricultural uses.

The Whitewater River runs through the Coachella Valley from the northwest to the southeast. Many portions of the main channel and its tributaries have been channelized to convey flood flows. The upper reach of the main channel is referred to as the Whitewater River Stormwater Channel (WRSC) and the lower reach is referred to as the Coachella Valley Stormwater Channel (CVSC).

DWA and CVWD both hold State of California surface water rights. CVWD's rights total up to 328,591 AFY for the Whitewater River and multiple tributaries, which exceeds the long-term average watershed runoff. These rights allow CVWD to capture available watershed runoff for replenishment of the groundwater basin.

DWA's rights total up to 13,308 AFY for Chino, Snow, Falls Creek, and Whitewater River. DWA acquired the water rights of the Whitewater River Mutual Water Company for 10 cubic feet per second (cfs) from Whitewater Canyon in 2008. Local surface water is diverted by DWA for urban and agricultural demands. Because surface water supplies are affected by variations in annual precipitation, the annual supply is highly variable. Since 1960, the historical surface water diversions have ranged from approximately 1,400 to 8,500 AFY. From 2020 – 2024, DWA's average annual surface water diversions from all sources totaled 2,740 AFY. The remaining undiverted surface water is recharged into the Indio Subbasin through the natural streambed near Snow Creek Road/Highway 111, Chino Canyon, and the Whitewater River channel.

The water quality of local surface water is generally suitable for its beneficial uses. DWA is the only participating agency that uses surface water as an urban supply. DWA monitors surface water quality at the diversion. If the water quality does not meet permit requirements or is outside the approved treatment capabilities, diversions are temporarily suspended. DWA brought a new surface water filtration plant online in late 2020 to filter water from Snow Creek and Falls Creek. DWA's Chino Creek supply, which serves the Palm Springs Aerial Tramway, is operated in accordance with filtration avoidance criteria.

3.4 Stormwater

Stormwater is not being intentionally diverted for beneficial reuse in the Coachella Valley and is not reported as a water source. Though, given the porous nature of the region's soils, stormwater percolates to groundwater except in extreme wet weather events when the Whitewater River and associated stormwater conveyance channels discharge to the Salton Sea.

3.5 Recycled Water

Recycled water is a significant potential local resource that can be used to help reduce overdraft. Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other non-potable purposes. An overview of water recycling programs is included here, and each agency's chapter has more detailed information about their facilities.

CVWD started recycling wastewater for irrigation of golf courses and landscaping in the Coachella Valley in the late 1960s. CVWD operates five Water Reclamation Plants (WRPs), two of which (WRP-7 and WRP-10) generate recycled water for irrigation of golf courses and large landscape areas. WRP-7 is located in north Indio and is a 5.0 MGD secondary treatment facility with current tertiary treatment capacity of 2.5 MGD (2,800 AFY). The tertiary treated wastewater is used for irrigation of golf courses at Sun City in north Palm Desert and Shadow Hills in north Indio. WRP-10 is located in the City of Palm Desert and is an 18

MGD secondary treatment facility with a current tertiary treatment capacity of 15 MGD (16,800 AFY). WRP-7 and WRP-10 both deliver a blend of recycled water and Canal water for irrigation of golf courses, municipal, and HOA landscaping. The blend proportion depends on customer demands with CVWD's goal to beneficially reuse as much recycled water as possible; Canal water is used to augment supply for peak demands. CVWD is also planning to add tertiary treatment at WRP-4, in the unincorporated community of Thermal. CVWD's remaining two plants, WRP-1 and WRP-2, are small facilities with no current plans for water recycling.

CWA serves the City of Coachella, whose CSD owns and operates a 4.5 MGD (5,040 AFY) secondary treatment wastewater facility utilizing activated sludge and oxidation ditch processes. The plant currently discharges treated effluent to the CVSC. CSD participated in a regional feasibility study to determine the best available and most cost-effective opportunity to implement recycled water, but has not proceeded with a recycled water system construction at this time.

DWA began operating its DWA WRP in the 1980s that treats secondary effluent from the City of Palm Springs WWTP. The DWA WRP has a tertiary treatment capacity of 10 MGD (11,200 AFY). DWA delivers recycled water to golf courses, parks, and other landscapes in the Palm Springs area, and also utilizes recycled water for irrigation at its operations center and WRP. Beginning in 2014, DWA equipped two shallow groundwater wells to augment the non-potable supply for peak demands (typically summer). These shallow wells pump non-potable groundwater adjacent to the DWA WRP to temporarily augment recycled water supplies when secondary effluent flow from the Palm Springs WWTP is not sufficient to meet customer needs.

Indio serves the City of Indio, where wastewater treatment is provided by VSD. VSD owns and operates an 11 MGD (12,320 AFY) wastewater treatment facility that serves most of the City of Indio. The City of Indio and VSD have formed a Joint Powers Authority to plan, program, finance, design and operate a future WRP. This facility would provide advanced treatment for effluent from VSD's plant and create a new sustainable source of supply. Initial planning for the first phase is currently underway.

MSWD operates three wastewater treatment facilities. The Alan L. Horton WWTP is a 2.4 MGD (2,690 AFY) facility in Desert Hot Springs. The Desert Crest WWTP is a small 0.2 MGD (224 AFY) facility serving two mobile home parks in Desert Hot Springs. Both facilities discharge to onsite evaporation/percolation ponds. The Nancy Wright Regional WRF, recently completed in September 2024, is a 1.5 MGD (1,680 AFY) facility that will accept flows formerly routed to the Horton WWTP. MSWD plans to expand the Regional WRF to produce recycled water for beneficial reuse in the Mission Creek Subbasin.



Photograph: MSWD's Nancy Wright Regional Water Reclamation Facility

MDMWC does not provide wastewater treatment services, and coordinates with regional agencies on potential uses of recycled water within its service area.

Two small facilities in the southern portion of the study area are operated by the Salton Community Services District (SCSD). The Salton City WWTP (0.5 MGD) and the Desert Shore WWTP (0.2 MGD) dispose of effluent through evaporation and percolation, and there are no current plans for water recycling.

Wastewater treatment and recycled water facilities are shown in Figure 3-4.

3.6 Consistency with the Delta Plan for Participants in Covered Actions

The region's approach to demonstrating reduced reliance on the Delta has been developed using input from DWR and SWP Contractors. This RUWMP is focused on the delivery of potable water to meet demands in each agency's public water systems. Agricultural users and golf courses use large amounts of water in the Coachella Valley, but this water is not typically delivered through the municipal systems. Instead, these users may pump groundwater, which is replenished with Colorado River or SWP exchange water, or receive Canal water delivered by CVWD. For the purposes of evaluating regional reliance on the Delta, the agencies have prepared an estimate of these non-municipal demands in the region (see Table 3-4). The analysis of reduced Delta reliance is provided in Appendix B.

Table 3-3. Non-Municipal Water Use

	2025	2030	2035	2040	2045	2050
Agricultural Irrigation (AFY)	267,655	264,311	260,024	255,917	251,810	247,702
Golf Irrigation (AFY)	106,735	111,479	111,479	111,479	111,479	111,479
Other Non-Urban Non-Potable Use (AFY)	10,731	10,731	10,731	10,731	10,731	10,731
Total Non-Urban Non-Potable Use (AFY)	385,121	386,521	382,234	378,127	374,020	369,912

Notes:
These estimates are from the draft Indio Subbasin Alternative Plan Update and draft Mission Creek Subbasin Alternative Plan Update, which will be submitted to DWR by January 1, 2027.

3.7 Climate Change

The long-term reliability of imported water supplies for CVWD and DWA is shaped by the accelerating impacts of climate change on both the SWP and the Colorado River. Climate conditions fundamentally change how water systems are designed, operated, and sustained to meet water supply, flood protection, and ecosystem needs. Rising temperatures, reduced snowpack accumulation, altered runoff timing, and increasingly persistent drought conditions are diminishing the reliability of traditional water storage and conveyance systems. Recent assessments by DWR and USBR indicate that past hydrologic patterns can no longer serve as a dependable benchmark for future planning. Projections show declining SWP deliveries under all modeled climate scenarios by 2043, while Colorado River operations are anticipated to remain constrained by shortage conditions as basin inflows continue to fall below historical norms.

3.7.1 State Water Project Vulnerability to Climate Change

In December 2025, DWR released the Draft 2025 SWP Delivery Capability Report (DWR 2025b), which evaluates how the SWP performs under three projected future climate scenarios, representing 50%, 75%, and 95% likelihood-of-occurrence. The Draft 2025 Delivery Capability Report examines the SWP system's resilience to climate-driven stressors and finds that warming temperatures are expected to convert more precipitation from snow to rainfall, increasing winter runoff while reducing late-season flows. This seasonal shift affects both the timing and dependability of SWP deliveries. To assess these impacts, DWR modeled future hydrologic conditions during representative wet years to estimate anticipated changes in SWP Table A deliveries. DWR's modeling indicates that SWP Table A deliveries are expected to diminish during both wet and dry periods as compared to existing conditions. For CVWD and DWA, which rely on SWP deliveries for groundwater replenishment, providing the region with long-term drought resilience, these reductions will result in less water availability and greater dependance on groundwater in storage.

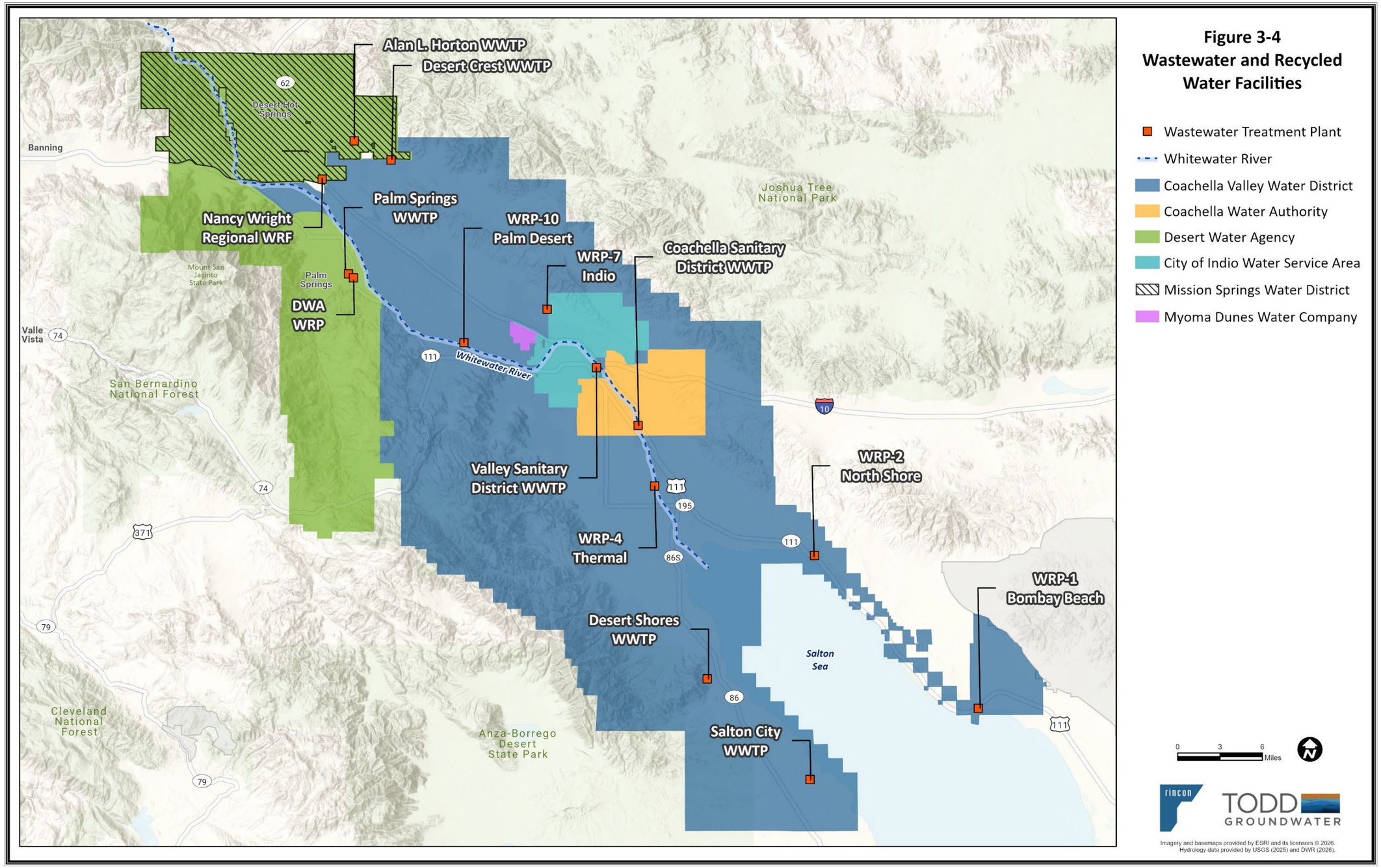


Figure 3-4. Wastewater and Recycled Water Facilities

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Section 3.2.2.3 contains a detailed description of SWP reliability based on the Draft 2025 Delivery Capability Report. Across all future climate scenarios, long-term average SWP deliveries decline from current 54% of Table A amounts to 43-48% in 2043. The impacts are more pronounced during multi-year droughts. For example, a historical 6-year drought that produced 15-22% of Table A supplies are projected to deliver 13–15% under climate change in 2043. For CVWD and DWA, these projected changes translate into reduced dependability and altered timing of SWP supplies. Diminished deliveries would limit water available for groundwater recharge, constrain CVWD's ability to buffer Colorado River shortages, and reduce opportunities to replenish storage following extended drought conditions.

In August 2025, DWR released the SWP Adaptation Strategy (DWR 2025a), which builds on the findings of the Delivery Capability Report and evaluates the same future climate scenarios. This strategy outlines pathways to strengthen system performance, identifying seventeen adaptation measures spanning infrastructure investments, operational and management adjustments, and nature-based approaches designed to enhance long-term SWP reliability. Five actions, including the Delta Conveyance Project and Forecast-Informed Reservoir Operations, were identified as being the most promising. These strategies are organized into four potential adaptation portfolios in the SWP Adaptation Strategy. By 2043, the preferred portfolio is estimated to exceed current capability by 200,000 TAF/year. Implementation of this portfolio will require significant financial investment by local and State agencies, policy alignment between regional and State policy makers and overcoming a variety of regulatory and legal hurdles.

3.7.2 Colorado River Aqueduct Vulnerability to Climate Change

Supplies conveyed through the Colorado River Aqueduct have remained below historical norms, reflecting more than twenty years of severe drought compounded by a long-term decline in basin-wide flows. According to USBR's February 2026 24-Month Study (USBR 2026), the April through July 2026 unregulated inflow forecast for Lake Powell is 2.40 MAF, which is 38% of average. For the full Water Year 2026, the unregulated inflow forecast for Lake Powell is 5.02 MAF, or 52% of average. In addition, the Calendar Year 2026 diversion for MWD is projected to be 0.905 MAF. A Shortage Condition will govern the operation of Lake Mead for Calendar Year 2026, meaning water deliveries to some users will be reduced to protect the reservoir (USBR 2026). As the States negotiate a post-2026 operating framework, structural deficits and worsening hydrologic conditions will require permanent reductions in Colorado River use across all sectors, including municipal, agricultural, and environmental users.

3.7.3 Regional Climate Change Projections

Regional climate change projections were developed as part of the Coachella Valley Regional Water Resilience Plan (currently underway). To evaluate the region's vulnerability to climate-related hazards, the best available statewide and global climate models were consulted to derive watershed-specific climate change metrics. These climate change metrics were used to assess how the watershed and community may be exposed to key representative climate hazards, including extreme heat and extreme precipitation. The projected changes in extreme heat and extreme precipitation are based on climate simulations driven by greenhouse gas scenario pathways known as Shared Socioeconomic Pathways (SSPs). SSPs were produced by an international community of climate scientists within the Intergovernmental Panel on Climate Change framework. They represent different plausible futures based on assumptions about population growth, economic development, technological advancement, energy systems, and global climate policy. Each pathway produces a distinct emissions trajectory, which is then used to drive Global Climate Models to simulate future temperature, precipitation, and related climate variables at a regional scale. For this analysis, the SSP3-7.0 pathway was selected to align with California's Fifth Climate Change Assessment, public utility planning standards, and the State's Office of Land Use and Climate Innovation's recommended reference scenario for regional assessments. SSP3-7.0 represents a mid-to-high emissions future characterized by limited international cooperation, slower economic growth, and significant challenges to mitigation, resulting in elevated projected warming and associated changes in hydrology and extreme events across the watershed boundary.

Based on this analysis, the most intense increases in extreme heat events are concentrated along the Coachella Valley floor and eastern portions of the planning area, reflecting the combined effects of desert climate, topography, and urban heat amplification. When evaluating extreme thresholds (days exceeding

114°F), 2045–2074, very high heat days expand substantially in frequency and spatial coverage, particularly across the central Valley floor and southeastern planning area.

Extreme precipitation projections show a more complex pattern. While total annual rainfall remains low in this arid system, the proportion of precipitation falling in intense events increases across much of the planning area by mid-century. The 2045–2074 analysis indicates a higher percentage of total rainfall delivered through extreme precipitation events compared to 2015–2044, particularly across portions of the western and central Coachella Valley. This suggests greater variability, with longer dry periods punctuated by more intense storm bursts, conditions that elevate flash flood risk, debris flow potential in foothill areas, and stormwater management challenges along the Valley floor.

3.7.3.1 Additional On-Going Climate Change Analysis

Potential climate change impacts on the region's water supplies are also being evaluated as part of the Indio Subbasin and Mission Creek Subbasin Alternative Plan Updates. It is expected that climate change could lead to increased water use in the region with higher temperatures and changes in precipitation patterns. This impact has not been explicitly quantified, but has been considered as part of the range of uncertainty in future demand estimates.

Chapter 4 Coachella Valley Water District

4.1 Introduction

This chapter presents information specific to the Coachella Valley Water District (CVWD) for compliance with the UWMP Act. As an urban water supplier, CVWD is required to prepare an UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies, and this chapter contains information specific to CVWD.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWMP.

4.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 4.1 - Introduction.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 4.2 - Plan Preparation.** Provides information on CVWD's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 4.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and CVWD's organizational structure and history.
- **Section 4.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within CVWD's service area.
- **Section 4.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes CVWD's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 4.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to CVWD. Includes discussion of potential recycled water uses and supply availability.
- **Section 4.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of CVWD's water supply and projects reliability for the next 25 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 4.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides CVWD's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 4.9 - Demand Management Measures.** Describes CVWD's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 4.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by CVWD to adopt and submit the UWMP and to make it publicly available. Includes a discussion of CVWD's plan to implement the UWMP.
- A**ppendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

4.1.2 RUWMP in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 3 of the RUWMP.

4.1.3 RUWMP and Grant or Loan Eligibility

CVWD has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans as required by CWC Sections 10608.56 and 10656.

4.1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The participating agencies' approach to demonstrating reduced reliance on the Delta is discussed in Chapter 3 of the RUWMP. The analysis of reduced Delta reliance is provided in Appendix B.

4.2 Plan Preparation

This section provides information on CVWD's process for developing this RUWMP, including efforts in coordination and outreach. CVWD notified Riverside County and the cities within CVWD's service area during preparation of the RUWMP and WSCP as required by CWC Section 10642. The RWUMP website (https://www.cvrwmg.org/uwmp/) was updated and stakeholders were notified via email of availability of the Public Draft RUWMP and planned public hearing dates. Community members and the public were encouraged to attend and provide comments.

4.2.1 Plan Preparation

In accordance with the CWC section 10621, urban water suppliers must develop a UWMP every five years. Under CWC Section 10617, an "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. CVWD supplies approximately 100,000 AFY to over 100,000 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

4.2.2 Basis for Preparing a Plan

CVWD serves municipal customers through two public water systems, summarized in Table 4-1. This chapter and the RUWMP meet reporting requirements for both systems. In March 2021, CVWD's ID No. 11 system was consolidated into the Cove Community system, and they are now treated as a consolidated system for reporting purposes.

Table 4-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA3310001	CVWD - Cove Community	112,974	96,842
CA3310048	CVWD - ID No. 8	1,686	3,048
Total		**114,660**	**99,890**

4.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participating in an area-wide, regional, watershed, or basin-wide urban water management plan. CVWD is participating in the Coachella Valley RUWMP.

4.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

4.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. CVWD is a retail agency and does not currently sell wholesale water. Table 4-2 shows CVWD's supplier identification information used throughout this report.

Table 4-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of Measure Used in UWMP	AF

4.2.6 Coordination and Outreach

CVWD does not receive water from a wholesale supplier and meets all its water demands through its own supplies. CVWD does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

4.3 Service Area Description

This section describes the CVWD urban water service area, population, and demographics as required by CWC Section 10631.

4.3.1 General Description

CVWD was formed in 1918 under the County Water District Act provisions of the CWC. In 1937, CVWD absorbed the responsibilities of the Coachella Valley Stormwater District that had been formed in 1915. CVWD now encompasses approximately 640,000 acres, mostly within Riverside County, but also extending into northwestern Imperial and northeastern San Diego counties.

CVWD is governed by a board of five directors, elected by district voters to four-year terms. Each director lives in and represents one of five directorial divisions in the district and is elected by voters who also reside in that division.

CVWD is a Colorado River water importer and a SWP Contractor, bringing imported water supplies into the Valley for direct use and replenishment. Colorado River water allocations are directly imported via the Coachella Branch of the All-American Canal. No connection exists to the SWP, but CVWD receives SWP allocations through an in-kind exchange with the Metropolitan Water District of Southern California (MWD). CVWD receives Colorado River Water originally allocated to MWD, and MWD receives an equivalent volume from its SWP connection. The water-related services provided by CVWD include:

- Domestic water delivery
- Irrigation water delivery and agricultural drainage
- Wastewater collection, treatment, and recycling
- Stormwater and flood protection
- Groundwater replenishment
- Water conservation

CVWD is the largest urban water supplier in the Coachella Valley with over 100,000 municipal connections.

4.3.1.1 Domestic Water Delivery

CVWD's domestic water system has 62 pressure zones and consists of approximately 92 groundwater production wells, 2,075 miles of distribution pipelines, and 174.5 million gallons (MG) of storage in 68 enclosed reservoirs (CVWD 2025b, CVWD 2025e). Water quality is generally good with limited need for wellhead treatment (i.e., chlorination), but additional treatment is planned or implemented for certain constituents (e.g., hexavalent chromium).

4.3.1.2 Irrigation Water Delivery and Agricultural Drainage

CVWD's irrigation system provides Colorado River water to over 1,200 customers covering over 63,000 acres via the 123-mile, concrete-lined, Coachella Branch of the All-American Canal. The irrigation distribution system consists of 485 miles of buried pipe, 16 pumping plants, and 1,300 AF of storage.

Due to a high perched groundwater table and concentration of salts in irrigated soils within CVWD's service area, an agricultural drainage system is necessary. CVWD operates and maintains an agricultural drainage system consisting of 166 miles of buried pipe ranging in size from 18 inches to 72 inches in diameter and 21 miles of open channels to serve as a drainage network for irrigated lands. The system receives water from on-farm drainage lines. In most areas, the drainage system flows to the CVSC. However, in areas near the Salton Sea, several open channels convey flows directly to the sea.

4.3.1.3 Wastewater Collection, Treatment, and Recycling

CVWD's wastewater reclamation system collects and treats approximately 17 MGD from more than 105,000 residential and commercial user accounts. The system consists of approximately 1,100 miles of collection piping and five WRPs. Some portions of the CVWD service area remain on septic systems.

CVWD operates five WRPs, two of which (WRP-7 and WRP-10) generate recycled water for irrigation of golf courses and large landscape areas. WRP-7 is located in north Indio and is a 5.0 MGD secondary treatment facility with current tertiary treatment capacity of 2.5 MGD (2,800 AFY). The tertiary treated wastewater is used for irrigation of golf courses at Sun City in north Palm Desert and Shadow Hills in north Indio. WRP-10 is located in the City of Palm Desert and is an 18 MGD secondary treatment facility with a current tertiary treatment capacity of 15 MGD (16,800 AFY). WRP-7 and WRP-10 both deliver a blend of recycled water and Canal water for irrigation of golf courses, municipal, and HOA landscaping. The blend proportion depends on customer demands with CVWD's goal to beneficially reuse as much recycled water as possible; Canal water is used to augment supply for peak demands. CVWD is also planning to add tertiary treatment at WRP-4, in the unincorporated community of Thermal. CVWD's remaining two plants, WRP-1 and WRP-2, are small facilities with no current plans for water recycling.

The recycled water distribution systems serve a total of 25 customer accounts through 31 miles of currently active pressurized distribution pipelines. Infrastructure improvements are underway to extend the pressurized distribution pipeline network and connect to approximately 20 additional customers by 2030. The primary focus of the recycled water system is to provide non-potable water to golf courses and other large landscapes, such as HOAs, churches, schools, and other publicly owned properties, to offset groundwater pumping for landscape irrigation.

4.3.1.4 Stormwater and Flood Protection

CVWD provides regional flood protection for its stormwater unit within the Coachella Valley. CVWD's stormwater unit extends from the Whitewater River GRF to Salton City, encompassing approximately 380,000 acres. CVWD's regional flood control system consists of a series of debris basins, levees, and stormwater channels that divert floodwaters from the canyons and alluvial fans surrounding the Coachella Valley to the 50-mile Coachella Valley Stormwater Channel that flows to the Salton Sea.

4.3.1.5 Groundwater Replenishment

CVWD has operated and maintained recharge facilities at the Whitewater River GRF (formerly referred to as the Whitewater Spreading Area) in the West Indio Subbasin since 1919, first with local surface runoff and, since 1973, with imported SWP exchange water. The Whitewater River GRF has a series of 19 ponds

covering 700 acres adjacent to the Whitewater River. Local runoff and SWP water deliveries are transported to the ponds via the Whitewater River channel and then diverted into the recharge ponds at two locations by diversion structures. Since its introduction in 1973, over 4.68 million AF have been recharged at this facility. Desert Water Agency (DWA) shares in the operation and maintenance cost at the Whitewater River GRF to replenish groundwater using SWP exchange water.

The Palm Desert GRF, also located in the West Indio Subbasin, began operation in February 2019. Colorado River water is delivered to the facility through the Mid-Valley Pipeline. The facility consists of five ponds covering 20 acres with a maximum design capacity of 10,000 AFY. Since 2019, approximately 71,551 AF have been recharged through Phase I of the project. Phase II of the project will consist of three ponds covering 25 acres in the CVSC with a maximum design capacity of 15,000 AFY. The timeline for Phase II is presently undetermined.

Located in the Mission Creek Subbasin, the Mission Creek GRF was constructed in 2002 and is operated by CVWD and DWA through a cost sharing agreement, with a resolution of support from MSWD. The facility receives SWP exchange water and consists of twelve percolation ponds located adjacent to Mission Creek in northern Coachella Valley. Replenishment at the facility began in late 2002 and, as of calendar year 2025, approximately 187,995 AF have been recharged.

Recharge began at the Thomas E. Levy GRF in 2009. The Thomas E. Levy GRF, located on the western slope of the East Coachella Valley in the East Indio Subbasin, consists of 39 ponds covering 163 acres with a design capacity of 40,000 AFY. Replenishment at Thomas E. Levy GRF has been curtailed since 2022 due to voluntary reductions in Colorado River water use under the Lower Colorado River Basin Conservation and Efficiency Program. While groundwater replenishment was reduced at this facility, the long history of consistent recharge at Thomas E. Levy GRF has resulted in increased long-term water levels and has helped maintain groundwater levels in the East Valley.

Two pilot facilities were previously utilized for groundwater replenishment, but have since ceased operations. CVWD began recharging Colorado River water from the Coachella Canal at the Dike 4 Pilot Facility in 1997 and at the Martinez Canyon Pilot Facility in 2005. . Both pilot facilities have been discontinued. Including Thomas E. Levy GRF, a total of approximately 522,600 AF has been recharged to the East Indio Subbasin since 1997.

4.3.2 Service Area Boundary

CVWD's service area spans approximately 1,000 square miles, from Desert Hot Springs to the Salton Sea. The existing distribution system mainly serves urban and suburban areas and includes service to golf resorts. Small water systems, private domestic wells, and private irrigation wells still serve water users, primarily in undeveloped and agricultural areas in the East Valley within CVWD's jurisdictional service area boundary. The CVWD jurisdictional boundary and current service area are shown in Figure 4-1.

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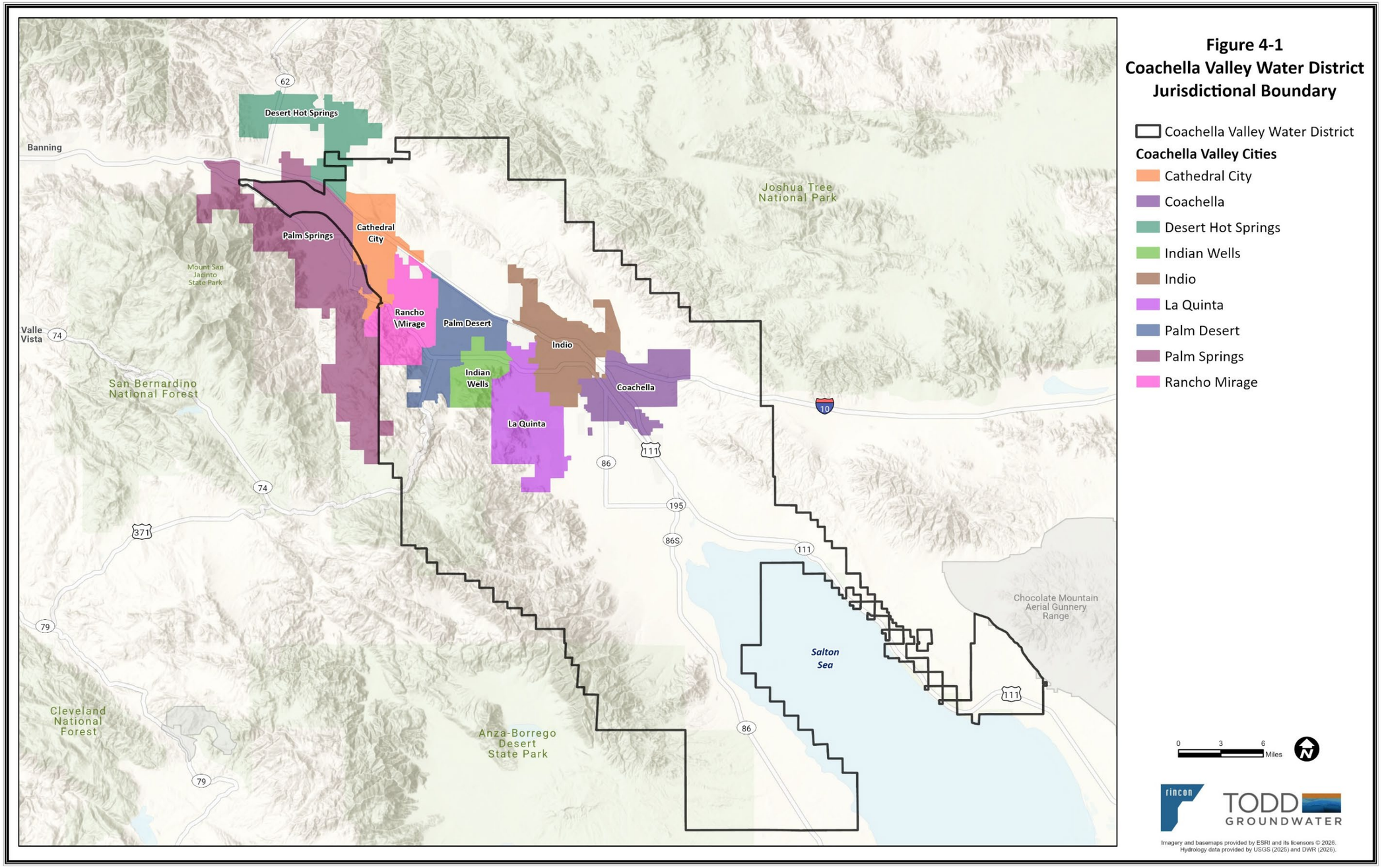


Figure 4-1. CVWD Jurisdictional Boundary

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4.3.3 Service Area Climate

CVWD's service area is located in the Colorado River Hydrologic Region as defined by DWR. Most of the Colorado River region has a subtropical desert climate with hot summers and short, mild winters. The mountain ranges on the northern and western borders, in particular the San Bernardino and San Jacinto Mountains, create a rain shadow effect for most of the region. Annual average rainfall amounts on the Valley floor range from a little over 6 inches to less than 3 inches. Most of the precipitation for the region occurs in the winter and spring. However, monsoonal thunderstorms, spawned by the movement of subtropical air from the south, can occur in the summer and generate significant rainfall in some years. For example, August 2023 rainfall due to the remnants of Tropical Storm Hilary resulted in significant infrastructure and property damage throughout Riverside County. Higher annual rainfall amounts and milder summer temperatures occur in the mountains to the north and west.

Data from climate stations in Palm Springs and Thermal (Desert Resorts Regional Airport) represents climate in the CVWD service area. Monthly average temperature reaches as high as 108 degrees Fahrenheit (F) and monthly average low temperatures are 38 degrees F. Precipitation typically occurs during the winter months with an annual mean rainfall of approximately 5.5 inches in Palm Springs and 3.0 inches in Thermal. Average minimum and maximum temperature, total precipitation, and evapotranspiration (Eto) at the Palm Springs and Thermal climate stations are summarized in Table 4-3 and Table 4-4, respectively.

Table 4-3. Monthly Average Climate Data (Palm Springs)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	71	74	81	87	95	104	109	108	102	91	79	69	89
Average Minimum Temperature (F)	48	50	54	59	66	73	79	80	74	65	53	46	62
Average Total Precipitation (in)	1.1	1.1	0.5	0.1	0.0	0.0	0.3	0.1	0.2	0.2	0.2	0.7	4.6
Evapotranspiration, ETo (in)	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

Notes:

Temperature and Precipitation from National Weather Service Forecast office, Station Palm Springs Airport. Data from 1991through 2020. Accessed through https://www.weather.gov/wrh/Climate?wfo=sgx

ETo Data from California Irrigation Management Information System (CIMIS) Station 208, La Quinta II. Data from February 2007 through December 2020.

Table 4-4. Monthly Average Climate Data (Thermal)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	71	74	81	87	95	103	107	106	101	91	79	69	89
Average Minimum Temperature (F)	39	43	49	55	63	69	76	75	68	57	45	38	56
Average Total Precipitation (in)	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
Evapo-transpiration, ETo (in)	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

Notes:

Temperature and Precipitation from National Weather Service Forecast office, Station Desert Resorts Regional Airport. Data from 1991 through 2020. Accessed through https://w2.weather.gov/climate/xmacis.php?wfo=sgx

CIMIS Monthly Average ETo Report for Thermal South – Station 218 (data for 2010 through 2020)

Climate change could impact demands and supplies within CVWD's service area. A discussion of these potential changes is included in Chapter 3 of the RUWMP.

4.3.4 Service Area Population and Demographics

This section describes the population and demographics within CVWD's service area. CVWD's service area includes all or a portion of the cities of Cathedral City, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, and Rancho Mirage, and unincorporated areas of Riverside County.

Current and projected demographics within CVWD's service area were developed by the Southern California Association of Governments (SCAG) as part of the 2024 Regional Transportation Plan, referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

The growth forecasts in SCAG's Connect SoCal plan included estimates of population, households, and employment through 2050. The 2024 Connect SoCal update projects that the population of Riverside County will increase by approximately 50% through 2050. The 2024 update also notes that the region's population decline between 2019 and 2023 and attributes this decrease to COVID-19 pandemic impacts. Traffic and visitation declined during the pandemic but has recovered to or exceeded pre-pandemic levels in most communities. SCAG notes that the median age is increasing and unpredictable events like the COVID-19 pandemic may cause significant deviations from projected long-term trends.

An important consideration affecting per capita water use in the Coachella Valley is the region's large seasonal population, which is not counted by the federal Census or other demographic data. Due to its mild winter climate and recreational opportunities, Coachella Valley is a popular destination for "snowbirds," people whose primary residence is outside the Valley but may live there for three to six months during the winter period. In addition, there are people who maintain second homes in Coachella Valley and use them for shorter periods of time throughout the year to participate in various sports, entertainment, and recreational activities. The visitor population also makes use of Coachella Valley's hotel/motel/time-share resorts as well as mobile home parks. These properties use water year-round to maintain outdoor landscapes even when not occupied during the summer months.

To estimate service area population, both permanent residents and seasonal residents were estimated. Estimates of the permanent population were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 4-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). Household totals for 2025 were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within CVWD's service area using Census data. The seasonal population was then estimated by dividing the permanent population totals by the occupancy rate from the Census for each jurisdiction to determine the number of housing units in CVWD's service area, and multiplying the total number of housing units by the difference between the average vacancy rate for California and the vacancy rate of each jurisdiction in CVWD's service area. This resulting number was used for the seasonal population estimate. Lastly, the population in Recreational Vehicle (RV) parks was estimated using RV and population data from the Census. The recent and projected future service area population is shown in Table 4-5.

Table 4-5. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
Permanent	229,269	264,659	300,049	307,475	314,901	322,327
Seasonal	78,710	87,751	96,793	97,742	98,692	99,642
RV Parks	1,111	1,111	1,111	1,111	1,111	1,111
Total	**309,090**	**353,521**	**397,952**	**406,328**	**414,703**	**423,079**

4.3.5 Land Uses within Service Area

The cities within the CVWD service area are identified in Section 4.3.4 and are shown in Figure 4-1. These cities participated in the development of SCAG's Connect SoCal plan, which included an intensive outreach and coordination effort with land use jurisdictions. The use of SCAG's growth forecast for water demand estimations means that the projections reflect patterns and expectations for land use within the service area.

Additionally, to support the demand forecast, CVWD reached out to each of the cities within the Coachella Valley to request information on additional known development plans or approvals that may not have been included in the 2024 Connect SoCal effort. This information has been incorporated into the RUWMP demand forecast.

Existing land use in the CVWD service area is a mixture of urban uses (residential, commercial, industrial, and civic), agriculture, golf courses, and open space. As noted in the 2018 IRWM/SWR Plan, an important trend in Coachella Valley is the conversion of farmland to urban uses although this trend has been slower than initially projected Figure 4-2 shows existing land use within the Coachella Valley derived from SCAG's Connect SoCal 2024 (SGAC, 2024).

4.4 Water Use Characterization

This section presents CVWD's baseline and projected urban water system demands. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

4.4.1 Non-Potable Versus Potable Water Use

CVWD produces a majority of its water supplies from the Indio and Mission Creek Subbasins, which are continuously replenished through CVWD and DWA water supply projects and programs. The Indio and Mission Creek Subbasins are regionally managed by the six participating agencies in this RUWMP.

In addition to groundwater, CVWD uses non-potable Colorado River water and recycled water to meet landscape irrigation demands within its service area.

4.4.2 Water Use by Sector

Water use is broken down by sector as discussed in the following subsections. Currently, all potable urban water use is supplied by groundwater.

The urban demand sectors listed in CWC §10631 that apply to CVWD are summarized in Table 4-6.

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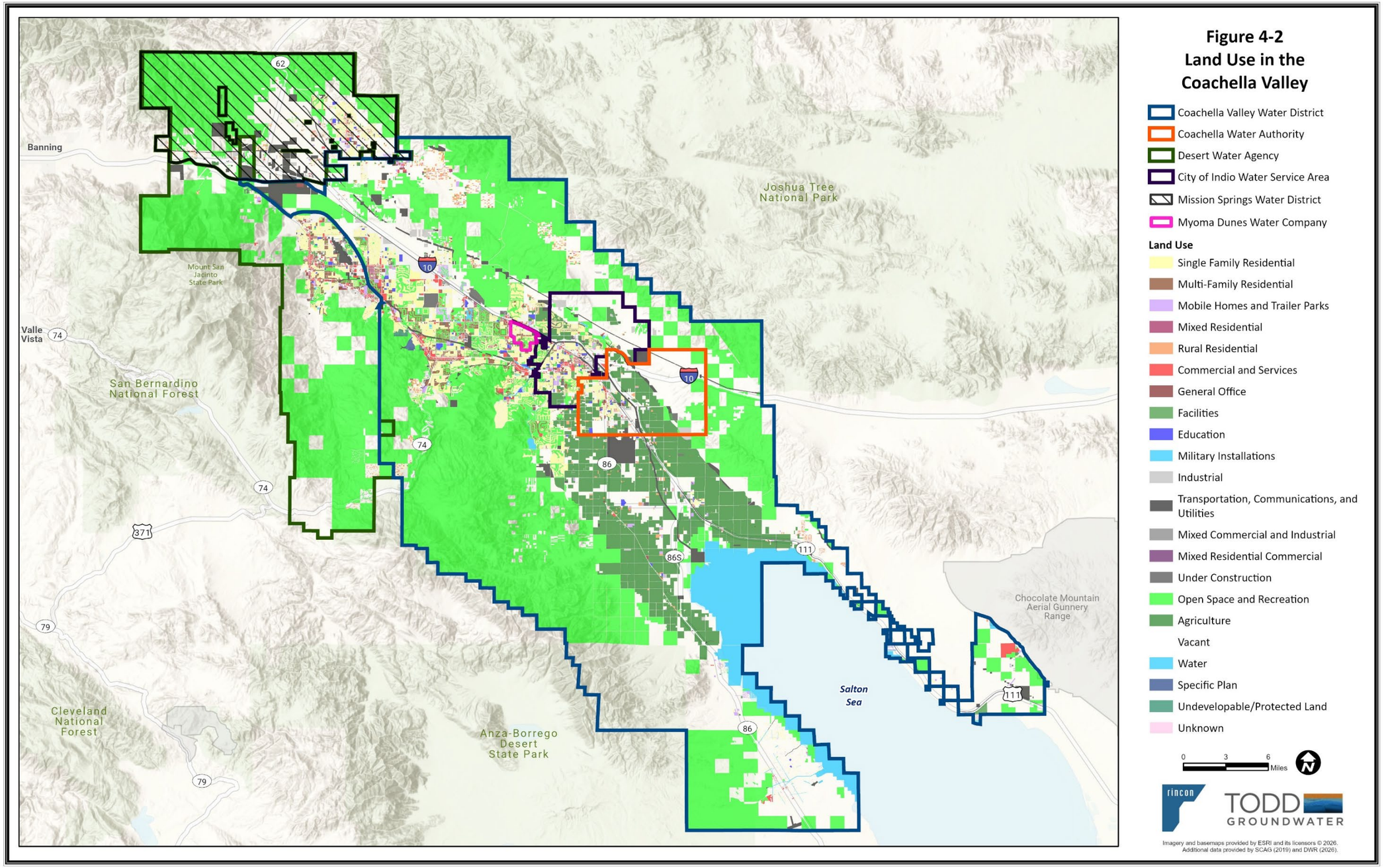


Figure 4-2. Land Use in the Coachella Valley

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Table 4-6. Water Use Sectors

Sector	Discussion for CVWD
Single Family Residence	A single-family dwelling unit is defined as a lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling. A relatively high percentage of these meters serve properties that are used seasonally. Future single-family residences are expected to use less water than existing properties due to the mandated use of high efficiency plumbing fixtures under the CalGreen building standards, increased conservation due to the implementation of CWC 10642, and reduced landscape water use mandated by CVWD's Landscape Ordinance.
Multi-Family	Multiple dwelling units contained within one building or several buildings within one complex. Within the CVWD service area, multi-family demand includes customers with more than one dwelling unit such as duplexes, triplexes, apartments, other multiple dwelling properties, and mobile home and recreational vehicle parks served by a master meter. Many of these connections serve properties that are used seasonally. Future multi-family residences are expected to use less water than existing properties due to the mandated use of high efficiency plumbing fixtures under the CalGreen building standards, increased conservation due to the implementation of CWC 10642, and reduced landscape water use mandated by CVWD's Landscape Ordinance and California's AB 1572.
Commercial	A water user that provides or distributes a product or service. Commercial use includes businesses, commercial properties, restaurants, hotels, and motels. Most existing and all new commercial customers are required to have separate landscape irrigation services. Future commercial water use is expected to be lower in response to CalGreen requirements, increased conservation due to the implementation of CWC 10642, and reduced landscape water use mandated by California's AB 1572.
Industrial	An industrial water user is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development. CVWD does not currently classify any of its users as industrial.
Institutional and Governmental	Institutional and governmental water users are dedicated to public service. This user class typically includes schools, higher education institutions, courts, churches, hospitals, government facilities, and non-profit research institutions. Future public agency water use is expected to be lower in response to CalGreen requirements, increased conservation due to the implementation of CWC 10642, and reduced landscape water use mandated by California's AB 1572.
Landscape	Landscape connections supply water solely for landscape irrigation. Such connections may be associated with large single family properties or multi-family, commercial, or institutional/governmental sites, but are considered a separate water use sector because the connection is solely for landscape irrigation. Many of these connections serve the common area landscaping of homeowner's associations and parks. CVWD's Landscape Ordinance requires the installation of dedicated landscape irrigation meters for all projects except single family homes with a landscape area less than 5,000 square feet. Future landscape usage is expected to decrease due to implementation of CVWD's Landscape Ordinance that requires improved irrigation efficiency and reduced allowable water use and California's AB 1572, which prohibits the use of potable water to irrigate non-functional turf on commercial, industrial, and institutional properties and Homeowner's Association common areas.
Groundwater Recharge	As described in Chapter 3 of the RUWMP, CVWD and DWA use imported water to replenish groundwater supplies in the Valley. This water is non-potable, and this use is not included CVWD's municipal demands on the urban water system.
Agricultural	CVWD does not deliver potable water through its urban water system for agricultural use. Agricultural users rely on Canal water delivered through the agricultural irrigation system and pumped groundwater, and this usage is considered in the Alternative Plans approved for SGMA compliance.
Distribution System Losses	Non-revenue water is considered the difference between production and measured consumption. Non-revenue water includes distribution system losses as well as authorized non-billed water uses, such as firefighting and flushing.

In addition to the uses specified in the water code, CVWD provides water for temporary construction activities. Construction use represents less than 1 percent of total water use and varies based on construction activity. Construction use is classified as "Other" water use in subsequent tables of this report.

4.4.3 Demands Not Served by the CVWD Urban Water System

CVWD operates several separate non-potable water systems that do not serve urban water customers. The agricultural irrigation, golf course irrigation, and groundwater recharge uses are not served from CVWD's urban water system, but they are described below to provide a complete picture of CVWD's water supply operations. Consequently, with the exception of recycled water, these non-potable uses are not included in DWR's standardized tables.

The Coachella Canal non-potable water distribution system was constructed to deliver Colorado River water for agricultural and irrigation uses in the East Valley. Currently, Canal water supplies agriculture, golf course irrigation, fish farming operations, duck clubs, and recreational lake uses. Agricultural use represents the largest use of Canal water in the Coachella Valley. Agricultural uses in areas that do not have access to Canal water are served by private groundwater wells; no agricultural irrigation is served by CVWD's urban water system. As urban development occurs in the East Valley, a portion of the agricultural land may convert to urban land uses and reduce agricultural demand for Colorado River water.

There are approximately 101 golf courses within the CVWD service area. These golf courses are served by private wells or non-potable water sources. CVWD serves non-potable water from the Coachella Canal, the Mid-Valley Pipeline, or a blend of tertiary-treated recycled water and Canal water to approximately 44 golf courses for irrigation in-lieu of pumping from private groundwater wells. CVWD is actively expanding the non-potable delivery system, with the goal of fully utilizing its available recycled water, augmented with Canal water during peak demands. These in-lieu delivery programs help reduce groundwater overdraft and the need for direct groundwater replenishment. No significant golf course irrigation is served by CVWD's urban water system.

CVWD recycles water for golf courses and other large landscapes at WRP-7 in north Indio and WRP-10 in Palm Desert, as described in Section 4.6. While recycled water deliveries to municipal uses (e.g., homeowners associations, schools, churches) are included in this RUWMP, recycled water deliveries to golf courses are not considered part of the urban water system.

4.4.3.1 Distribution System Losses

CVWD prepares annual water audits using the American Water Works Association (AWWA) Free Water Audit Software. The reporting and results for the past five years are summarized in Table 4-7. The numbers in Table 4-7 are the reported total losses, including apparent losses and real losses. The audit reports are included in Appendix E.

Table 4-7. DWR 4-5 Water Loss Audit Reporting

Report Period Start Date		Volume of Water Loss (AF)	Submitted to DWR Water Loss Audit Program
MM	YYYY	Total of CVWD Public Water Systems	
07	2021	10,610	yes
07	2022	8,610	yes
07	2023	8,371	yes
07	2024	10,732	yes
07	2025	8,601	yes

CVWD reports water loss for its two distribution systems (Cove Communities and ID8) separately and has separate performance standards for each system. The real water loss performance standard for CVWD's Cove Communities distribution system is 41.9 gallons per connection per day, a 7 percent reduction from the State estimated baseline of 45.1 gallons per connection per day. The real water loss performance standard for CVWD's ID8 distribution system is 1,554.9 gallons per mile per day, with no reduction from the

State estimated baseline. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. CVWD's total water loss currently averages about 67 gallons per connection per day, with the most recent reporting year averaging 25 gallons of real water loss per connection per day for the Cove and ID08 systems combined. Table 4-8 shows CVWD's progress towards the 2028 Water Loss Standard.

Table 4-8. DWR 4-6R Progress Towards 2028 Water Loss Standard

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day
CA3310001	Yes	41.9	Gallons per Service Connection per Day (GPSCD)	113,163	2,968	23.4
CA3310048	Yes	1,554.9	Gallons per Mile per Day (GPMD)	1,776	235	2,003
Public Water System ID # Reported in Submittal Table 2-1 R	**Did the Water Board Calculate a Water Loss Standard for this Public Water System?**	**Apparent Water Loss**				
		State Water Board Standard		**Most Recent AWWA Water Loss Audit**		
		2028 Apparent Water Loss Standard per Unit per Day	**Units for Apparent Water Loss**	**Number of Connections**	**Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)**	**Apparent Water Loss Per Unit per Day**
CA3310001	Yes	42.9	Gallons per Service Connection per Day (GPSCD)	113,163	5,353	42.2
CA3310048	Yes	135.4	Gallons per Service Connection per Day (GPSCD)	1,776	44.9	22.6
Note: Water Loss Audit numbers are from Fiscal Year 2025 AWWA Reports						

4.4.3.2 Summary of Current Uses

The uses in CVWD's urban water system for 2020 through 2025 are summarized in Table 4-9.

Table 4-9. DWR 4-1R Total Uses for Potable and Non-Potable Water — Actual

Use Type	Additional Description	Level of Treatment When Delivered	2020	2021	2022	2023	2024	2025
Single Family		Potable	52,202	53,593	52,285	49,072	51,865	51,556
Multi-Family		Potable	6,609	6,755	6,741	6,393	6,580	6,604
Commercial		Potable	4243	4832	4998	4986	5229	5,345
Institutional/ Governmental		Potable	1941	1156	1151	1060	1140	1,133
Landscape	Served by Dedicated Landscape Meters	Potable	22,829	24,030	23,679	21,367	22,682	22,551
Other	Construction	Potable	902	1,393	1,915	1,807	2,542	1,833
Other	Non-Revenue	Potable	11,117	9,787	9,297	8,402	9,248	9,978
Subtotal Potable			**99,843**	**101,546**	**100,066**	**93,087**	**99,287**	**99,000**
Landscape	Blend of WRP-7, WRP-10 and/or Canal water	Non-Potable	676	750	749	689	585	890
Subtotal Non-Potable			**676**	**750**	**749**	**689**	**585**	**890**
Total			**100,519**	**102,296**	**100,815**	**93,776**	**99,872**	**99,890**
Note: Non-revenue water is the difference between production and customer billing. It includes losses and authorized, non-billed consumption.								

4.4.4 Demand Forecast

CVWD is participating in the preparation of both the 2027 Indio and Mission Creek Subbasin Alternative Plan Updates to meet requirements of SGMA. The RUWMP agencies coordinated efforts with demand projections prepared for the Alternative Plan Updates. The demand projection approach included the following steps:

1. The projections were based on SCAG's regional growth forecast prepared as part of their Regional Transportation Plan, Connect SoCal 2024. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area (SCAG 2024). Population, households, and employment in CVWD's service area are projected to increase through 2050.
2. Additional analysis of vacancy rates was performed to estimate baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time users.
3. Baseline and projected estimates of employment were used to drive future growth in Commercial, Industrial, and Institutional (CII) demands.
4. Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to the CVWD service area. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.

5. Water losses were estimated using water loss audits from the last five years (2020 to 2024).
6. Demands were adjusted for the following types of conservation savings:
    - Indoor conservation savings from the natural replacement of indoor devices and plumbing fixtures, as well as increased conservation due to the implementation of CWC Section 10642, "Making Conservation a California Way of Life".
    - Outdoor water use reduction at new developments from the implementation of CVWD's Landscape Ordinance.
    - Outdoor conservation savings from turf replacement due to local rebate programs.
    - Outdoor conservation savings from the installation of smart irrigation controllers due to local rebate programs.
    - Outdoor conservation savings from the implementation of California's non-functional turf ban (AB 1572).

Projected municipal demands for CVWD's service area are shown in Table 4-10. Demands are expected to increase from 2030 through 2050, due to the projected increase in SCAG's household and employee projections for CVWD's service area. Some areas within CVWD's service area are currently served by private domestic wells and are not yet connected to the CVWD system. CVWD plans to consolidate and provide service to these areas, but the timing will depend on the availability of grant funding. For planning purposes, all municipal demands within the jurisdictional boundary are included beginning in 2025. CVWD's actual deliveries will likely be less than these estimates until CVWD begins providing service to these areas.

Table 4-10. DWR 4-2R Projected Retail Demands for Water (AFY)

Use Type	Additional Description	Level of Treatment	Projected Water Use				
			2030	2035	2040	2045	2050
Single Family		Potable	53,944	54,725	54,504	54,453	54,401
Multi-Family		Potable	7,152	7,844	7,897	8,015	8,132
Commercial		Potable	4,678	4,553	4,623	4,705	4,790
Institutional/ Governmental		Potable	1,242	1,209	1,227	1,249	1,272
Landscape	Served by Dedicated Landscape Meters	Potable	17,411	17,753	18,273	18,792	19,312
Other	Construction	Potable	1,623	1,623	1,623	1,623	1,623
Losses	Non-Revenue	Potable	9,782	10,179	10,368	10,558	10,747
Subtotal Potable			**95,833**	**97,886**	**98,516**	**99,394**	**100,276**
Landscape	Blend of WRP-7, WRP-10 and/or Canal water	Non-Potable	2,898	2,898	2,898	2,898	2,898
Subtotal Non-Potable			**2,898**	**2,898**	**2,898**	**2,898**	**2,898**
Total			**98,731**	**100,784**	**101,414**	**102,292**	**103,174**

Source: Based on demand projections in draft Alternative Plan Updates for Indio Subbasin and Mission Creek Subbasin.

4.4.4.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above). The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use), as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings." The model considers these mandates and the average useful life and

replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014).

Anticipated outdoor water use savings were based primarily on irrigation reduction via the implementation of ordinances and incentives for water reduction. One such ordinance is the California Model Water Efficiency Landscape Ordinance (MWELO) which is the standard for outdoor water conservation for the state and the basis for CVWD's Conservation Ordinance. The resulting water savings from the MWELO are estimated using an Evapotranspiration Adjustment Factor (ETAF) which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the non-functional turf ban, smart irrigation controllers, and turf replacement. AB 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e. ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect commercial, institutional, and homeowner association owned properties. CVWD also has rebates in place to encourage water conservation through the installment of smart irrigation controllers and turf replacement. These savings are not considered passive as they are implemented through incentives under conservation programs.

The anticipated passive savings due to these measures are summarized in Table 4-11. These savings have been incorporated into the water demand projections presented in Table 4-10.

Table 4-11. DWR 4-4R Passive Water Savings Projections (AFY)

Passive Savings	2030	2035	2040	2045	2050
Device Replacement	2,315	4,074	4,974	5,621	6,265
MWELO	1,347	2,426	2,705	2,986	3,268
Non-Functional Turf Ban	5,285	7,047	7,047	7,047	7,047
Total Passive Savings	**8,926**	**13,518**	**14,697**	**15,626**	**16,551**

4.4.4.2 Total Gross Water Use

Total projected gross water use, including both potable and recycled use, is shown in Table 4-12. Note that recycled water delivered to municipal uses is reported in the tables with urban water demands to be consistent with the DWR standard tables, but not all recycled water delivered by CVWD is part of the urban water system.

Table 4-12. Total Gross Water Use (AFY)

	2025	2030	2035	2040	2045	2050
Potable and Raw Water (AFY) From DWR Table 4-1R and 4-2R	99,000	95,833	97,886	98,516	99,394	100,276
Recycled Water Demand (AFY) From DWR Table 6-4R	890	2,898	2,898	2,898	2,898	2,898
Total Water Use	**99,890**	**98,731**	**100,784**	**101,414**	**102,292**	**103,174**

4.4.5 Water Use for Lower Income Households

The SCAG Regional Housing Needs Assessment (RHNA) Housing Need by Income Category is used to develop projections of lower income housing units in future years. The percentage of low income households estimated by the RHNA for each city in CVWD's service was applied to the total SCAG housing units estimated for each city in CVWD's service area. Averages for Riverside County were used to determine housing units in unincorporated areas served by CVWD.

Table 4-13 summarizes the projected water use for additional lower income households assuming the following: (1) the average persons per household remains constant, (2) lower income housing needs are proportional to the projected population growth, and (3) daily water use per capita is equal to the projected per capita water use. Note that lower income household water use projections are included in the total water use projections above.

Table 4-13. Lower Income Housing Units

Jurisdiction		2030	2035	2040	2045	2050
Cathedral City	Lower income housing units (2.7 persons per household)	387	773	1,139	1,505	1,871
	Water use (AF)	181	364	542	740	938
Indian Wells	Lower income housing units (1.8 persons per household)	158	315	421	527	633
	Water use (AF)	32	64	83	104	125
Indio	Lower income housing units (3.0 persons per household)	262	525	636	747	857
	Water use (AF)	50	100	112	128	144
La Quinta	Lower income housing units (2.3 persons per household)	555	1,111	1,518	1,925	2,332
	Water use (AF)	282	566	758	970	1,181
Palm Desert	Lower income housing units (2.0 persons per household)	1,124	2,249	2,250	2,251	2,251
	Water use (AF)	297	596	490	411	331
Rancho Mirage	Lower income housing units (1.8 persons per household)	1,320	2,640	2,728	2,816	2,904
	Water use (AF)	1,034	2,069	2,099	2,138	2,176
Unincorporated (within CVWD service area)	Lower income housing units (2.7 persons per household)	1,796	3,591	3,980	4,368	4,757
	Water use (AF)	193	386	383	396	408
Total	**Lower income housing units**	**5,602**	**11,204**	**12,671**	**14,138**	**15,605**
	Water use (AF)	2,071	4,144	4,468	4,886	5,303

Documentation of the codes and ordinances used in development of the demand projections is included in Table 4-14.

Table 4-14. DWR 4-3R Inclusion in Water Use Projections

Are Future Water Savings Included in Projections?	Yes
Citations	California Building Code, Title 24, Chapter 4, Division 4.3 California Building Code, Title 24, Chapter 5, Division 5.3 California Water Code §10608.16-10608.44 CVWD Ordinance No. 1302.3 (2017) CVWD Ordinance No. 1422.3 (May 24, 2016)
Are Lower Income Residential Demands Included in Projections?	Yes

4.4.6 Climate Change Considerations

A regional discussion of potential climate change impacts is included in Chapter 3 of the RUWMP. Increased temperatures in the Coachella Valley are expected to increase water demands for crop and landscape irrigation, municipal water use, and evaporative losses from canals and open reservoirs. Increased summer temperatures could draw increased monsoonal flow resulting in more frequent summer thunderstorms. As part of this RUWMP and the associated Alternative Plan Updates, the water suppliers have adopted a consensus approach to modeling the potentials impacts of climate change on local runoff, groundwater recharge, and SWP and Colorado River deliveries. A combination of state- and local-led DMMs may reduce demand for irrigation via landscape ordinances while public outreach and education can lead to reductions in water demands through conservation measures.

4.5 SB X7-7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that CVWD achieved its 2020 water use target in 2020.

4.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. CVWD selected to use Method 1, which was calculated as 80% of the urban retail water supplier's baseline per capita daily water use using a 10-year average starting no earlier than 1995. Based on the selected 10-year baseline of 515 GPCD, CVWD's selected 2020 target was 412 GPCD.

4.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, CVWD's service area population and gross water use were compared to the SBx7-7 target. The gross water used was determined from annual groundwater production records. Meter adjustments, exported water, distribution system storage, recycled water, and process water were not applicable to CVWD's distribution system. This volume was excluded from the SBx7-7 compliance calculation. CVWD's water use was calculated as 331 GPCD for year 2020.

4.5.3 Supplier Met 2020 Target in 2020

CVWD met their 2020 target as reflected in Table 4-15 below, which includes their 2020 target and 2020 Actual GPCD. CVWD was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

4.5.4 Funding Eligibility

As CVWD met their 2020 target, they are eligible to receive water grants or loans from the State of California per CWC Section 10608.56.

Table 4-15 SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	412	331	Yes

4.6 Water Supply Characterization

This section describes the existing and future water supplies available to CVWD to meet its potable and non-potable municipal water demands.

4.6.1 Water Supply Analysis Overview

CVWD's urban water service area is defined as the area served by its potable water distribution system. Currently, all urban potable water uses are supplied from local groundwater and some urban non-potable uses (e.g., HOA and school irrigation) are served by a blend of non-potable water. The non-potable blend, which includes Canal water and recycled water from WRP-7 and WRP-10, is used to meet both urban and non-urban irrigation demands. This RUWMP reports on urban non-potable uses only. In addition to groundwater and recycled water, CVWD has imported water supplies from the SWP and the Colorado River, which are used to meet non-urban (agricultural and other irrigation) water demands and to replenish the groundwater basin. CVWD's imported water agreements are described in Chapter 3 of this RUWMP because they support regional basin management and are not directly delivered to urban customers.

Further discussion of regional water supply sources is presented in Chapter 3 of the RUWMP.

4.6.2 Supply Characterization

The types of supply recognized by DWR are presented in the following sections. As shown in Table 4-9, CVWD uses its SWP and Colorado River imported supply for groundwater replenishment and delivers groundwater and non-potable water (blend of recycled water and Canal water) to meet municipal demands. Groundwater pumpers who extract greater than 25 AFY are metered and pay a Replenishment Assessment Charge (RAC) to support basin management, but these pumpers are assumed to be outside of CVWD's municipal service areas and are not included in urban supply. Table 4-16 shows the total urban water supply for 2020 through 2025.

Table 4-16. Urban Water Supply 2020-2025 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024	2025
Groundwater	Indio Subbasin	96,661	98,484	97,107	90,400	96,346	95,952
Groundwater	Mission Creek Subbasin	3,182	3,062	2,960	2,687	2,941	3,048
Non-potable water	Blend of WRP-7 and WRP-10 and Coachella Canal	676	750	749	689	585	890
Total		**100,519**	**102,296**	**100,815**	**93,776**	**99,872**	**99,890**

4.6.2.1 Purchased or Imported Water

CVWD has access to two sources of imported water: Colorado River and State Water Project.

Colorado River

Although CVWD's Colorado River water rights date back to 1934, its Priority 3(a) entitlement is quantified by the 2003 Quantification Settlement Agreement (QSA) at 330,000 AFY (gross). With additional transfers and acquisitions of conserved water from The Metropolitan Water District of Southern California (MWD) and Imperial Irrigation District (IID), CVWD's total gross Colorado Rover entitlement is 453,000 AFY by 2026 and 450,000 AFY by 2077.

CVWD's Colorado River water is delivered through the Coachella Canal and is used for groundwater replenishment and deliveries to agricultural lands.

More information about CVWD's Colorado River supplies is included in Chapter 3 of the RUWMP.

State Water Project

In 1963, CVWD entered into a contract with the State of California to purchase water from the SWP and became one of the 29 State Water Project Contractors. CVWD does not have the infrastructure to deliver State Project Water directly to its service area and instead relies on a "bucket for bucket" delivery and exchange agreement with MWD. This agreement allows CVWD to trade State Project Water with MWD for equal volumes of Colorado River water delivered through MWD's Colorado River Aqueduct.

The SWP supply consists of:

- *Table A allocation*: determined by DWR. CVWD's maximum contractual Table A allocation is 138,350 AF. However, the actual average annual allocation in the past few years has been less than 50 percent.
- *Supplemental water*:
    - Article 21 – occasionally, high flows in the SWP system create conditions for supplemental water known as Article 21 water, which DWR makes available to SWP Contractors. Article 21 does not count toward Table A allocation.
    - Dry Year Water Purchase Program – DWR initiated a dry year water purchase program to acquire water from voluntary sellers such as Yuba County Water Agency to augment the SWP water supplies during dry years. CVWD has an agreement with DWR for the purchase of water under this program.

More information about CVWD's SWP supplies is included in Chapter 3 of the RUWMP.

Other Imported Water

CVWD has an agreement with Rosedale-Rio Bravo Water Storage District for the purchase of 9,500 AFY, with the option to purchase an additional 7,000 AFY, if available (total of up to 16,500 AFY) through 2035. The total contractual obligation is 252,500 AF. CVWD exchanges this water with MWD for Colorado River water.

Imported Water Quality

CVWD exchanges its Table A water with MWD for Colorado River water to augment the Indio and Mission Creek Subbasins. Colorado River water is generally of good quality except for containing higher TDS concentration (greater than 500 mg/L) than native groundwater (less than 500 mg/L). TDS consists of minerals and salts dissolved in water, typically resulting from the erosion of natural deposits. The SWRCB DDW has established a secondary MCL of 1,000 mg/L for TDS, with a recommended level of 500 mg/L. The MCL for TDS concentration is a secondary drinking water standard, meaning that TDS is regulated based on customer acceptance rather than public health.

CVWD is collaborating with the regional water suppliers and other parties to update the Coachella Valley Salt and Nutrient Management Plan (SNMP) for RWQCB approval. Through this collaboration, CVWD hopes to achieve long-term salinity management strategies that are protective of both water quality and quantity.

Due to ammonium perchlorate contamination from manufacturing facilities in Nevada, perchlorate has been detected in Colorado River water. Perchlorate is a substance that can be either naturally occurring or man-made. Currently, perchlorate is a regulated contaminant with a State MCL of 6 µg/L. Capture and treatment of perchlorate contamination began in 1999, and concentrations of perchlorate in the Colorado River have been decreasing ever since. The presence of perchlorate in Colorado River water is not expected to affect the reliability of CVWD's water supply.

4.6.2.2 Groundwater

Groundwater is the principal source of municipal water supply in the Coachella Valley. CVWD obtains and manages groundwater from both the Indio and Mission Creek Subbasins. The Indio Subbasin is a common groundwater source, which is shared by CVWD, CWA, DWA, Indio, MDMWC, and numerous private groundwater producers. The Mission Creek Subbasin is also a common water supply that is utilized by CVWD, MSWD, and private groundwater producers. More information about local groundwater resources is included in Chapter 3 of the RUWMP.

CVWD extracts groundwater from natural recharge, artificial recharge with imported water, non-consumptive return flows, and groundwater in storage. Net natural replenishment for the Indio Subbasin averages 52,500 AFY. Groundwater from storage represents the additional pumping, typically in dry years, required to meet demands that exceed natural and imported supplies. Non-consumptive return flows are estimated to be between 29 to 35 percent of groundwater and non-potable water applied to landscapes but not consumed, allowing this portion to percolate back into the aquifer.

CVWD's total groundwater production for the past five years from the Indio and Mission Creek Subbasins is presented in Table 4-17. In response to growth, CVWD will gradually increase groundwater production to meet demands. CVWD intends to continue meeting its urban water demands with groundwater. In addition, CVWD has enacted water-saving policies such as tiered water rates, landscape irrigation conservation, and its Landscape Ordinance applicable to outdoor water use in new developments.

Table 4-17. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2020	2021	2022	2023	2024	2025
Alluvial Basin	Indio Subbasin	96,661	98,484	97,107	90,400	96,346	95,952
Alluvial Basin	Mission Creek Subbasin	3,182	3,062	2,960	2,687	2,941	3,048
Total		**99,843**	**101,546**	**101,546**	**93,087**	**99,287**	**99,000**
Numbers do not include groundwater volume pumped from small municipal water systems or private well owners within CVWD's service area.							

In addition to other urban water retail producers, there are private producers who pump directly from the groundwater basin. To manage groundwater levels, CVWD will continue to implement water use efficiency programs for large landscapes and convert the larger producers to non-potable Canal water and recycled water, where feasible. CVWD also works with agencies in the region to replenish the groundwater basin and implement conservation programs.

Groundwater Quality

CVWD's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by CVWD meets all U.S. EPA and SWRCB guidelines (CVWD 2025c).

While CVWD's domestic water supply meets state and federal standards, drinking water supplied to some service areas does contain low levels of naturally occurring arsenic. All drinking water delivered by CVWD in 2024 complied with the 10 microgram per liter (µg/L) maximum contaminant level (MCL).

Nitrate (as nitrogen) in drinking water at levels above 10 milligrams per liter (mg/L) is a health risk for infants. Wells with nitrate (as nitrogen) levels above 10 mg/L are removed from service.

The federal MCLs for PFAS, specifically PFOA and PFOS, of 4.0 parts per trillion (ppt) were set in April 2024. CVWD is actively monitoring and testing its water system for PFAS chemicals and is working to comply with federal advisories effective in 2027 and 2029.

In October 2024, the SWRCB approved the country's first drinking water standard for hexavalent chromium (chromium-6) at 10 µg/L. CVWD reports a range of chromium-6 results from non-detect to 21 µg/L collected from voluntary monitoring performed prior to the State's adoption of the chromium-6 MCL. As of November 2025, testing shows that about one-third (33 of 92) of the wells in CVWD's Cove Communities system have

chromium-6 levels above the State limit (CVWD 2025d). CVWD has completed and submitted a Compliance Plan to SWRCB to meet the State standards.

4.6.2.3 Surface Water

CVWD does not currently use or intend to use any local surface water as part of its urban water supply. Local runoff percolates into the groundwater basin through tributary and Whitewater River streambeds.

4.6.2.4 Stormwater

CVWD does not use stormwater directly as a source of supply. CVWD and other local agencies have considered opportunities to capture stormwater for groundwater recharge, though this occurs naturally through the Whitewater River streambed.

4.6.2.5 Wastewater and Recycled Water

CVWD provides both water and wastewater services within its service area. CVWD provides wastewater collection and treatment services for all or part of the cities of Cathedral City, Indian Wells, La Quinta, Palm Desert, and Rancho Mirage, as well as unincorporated areas of Riverside County. By agreement, a small portion of flow from DWA's service area is sent to CVWD's WRP-10.

Recycled water is a significant potential local resource that can be used to help reduce groundwater overdraft. Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other non-potable purposes; however, the current level of wastewater treatment does not yield water suitable for direct potable use. Coachella Valley golf courses are not connected to CVWD's urban water system, but instead rely on a combination of non-potable Canal water, recycled water and/or private groundwater wells to meet their irrigation needs. To manage groundwater overdraft, CVWD started recycling wastewater for irrigation of golf courses and landscaping in the late 1960s. As growth occurs in the Coachella Valley, the supply of recycled water is expected to increase, thereby creating an additional opportunity to maximize local water supply.

CVWD's wastewater collection system consists of approximately 1,100 miles of 6-inch through 36-inch diameter sewers, and includes 27 sewage lift stations and associated force mains (CVWD 2026). The system contains trunk sewers, generally 10 inches in diameter and larger, that convey the collected wastewater flows to CVWD's WRPs. CVWD operates five WRPs, two of which (WRP-7 and WRP-10) generate recycled water for irrigation of golf courses and large landscaped areas.

WRP-1 serves the Bombay Beach community near the Salton Sea. WRP-1 has a design capacity of 150,000 GPD, and currently all the effluent from this facility is disposed by evaporation-infiltration. CVWD has no plans to recycle effluent from this facility because of the low flow and lack of potential uses near the plant.

WRP-2 serves the nearby North Shore community. WRP-2 has a treatment capacity of 33,000 GPD and can provide additional capacity when flows exceed this value. WRP-2 discharges treated secondary effluent into four evaporation-infiltration basins for final disposal. CVWD has no plans to recycle effluent from this facility because of the low flow and lack of potential uses near the plant.

WRP-4 is a 9.9 MGD capacity treatment facility located in Thermal. WRP-4 became operational in 1986 and serves communities from La Quinta to Mecca. WRP-4 provides secondary treatment consisting of pre-aeration ponds, aeration lagoons, polishing ponds, and disinfection. The treated effluent is discharged to the CVSC. Effluent from WRP-4 is not currently recycled, though CVWD plans to add tertiary treatment and reuse effluent from this plant in the future. CVWD has filed a Change Petition (WW0093) with the SWRCB to move forward with recycling at WRP-4.

WRP-7 is located in North Indio and has a secondary treatment capacity of 5.0 MGD. The design capacity of the tertiary treatment system at WRP-7 is 2.5 MGD. The off-site pumping capacity of the WRP-7 recycled water pump is approximately 4,500 gpm. In the summer, peak demands exceed the pumping capacity of 4,000 gpm which typically serves Sun City and 500 gpm which serves Shadow Hills. WRP-7 delivers a blend of recycled water and Canal water for irrigation of golf courses and HOA landscaping. The blend

proportion depends on customer demands with CVWD's goal to beneficially reuse as much recycled water as possible; Canal water is used to augment supply for peak demands.

WRP-10 is located in Palm Desert. WRP-10 began delivering recycled water in 1987. The design capacity of the secondary treatment system is 18 MGD and the tertiary treatment system is 15 MGD. Since 2009, WRP-10 is also capable of serving Canal water from the Mid-Valley Pipeline (MVP) blended with tertiary water to non-potable water customers. The blend proportion depends on customer demands with CVWD's goal to beneficially reuse as much recycled water as possible; Canal water is used to augment supply for peak demands. WRP-10 has two distribution systems (one is a low-pressure system and one is high-pressure system), with recycled and/or Canal water delivered by the MVP. Because the winter demand for recycled water is less than the available supply, a portion of the plant's flow is disposed through on-site evaporation-infiltration basins.

The existing recycled water customers are not part of CVWD's urban potable water system, but are private groundwater producers that purchase recycled water in-lieu of groundwater pumping. Golf course irrigation is expected to remain the largest use of recycled water in the future. Although CVWD's urban water demand is not offset by recycled water use, the Coachella Valley's water supply is indirectly increased by transitioning private groundwater producers to recycled water.

The wastewater collected and treated in the service area is shown in Table 4-18. The recycled water produced is shown in Table 4-19. Table 4-20 summarizes the current and projected uses of recycled water within CVWD's service area. The 2020 UWMP projected recycled water uses for 2025 are presented in compared with actual recycled water use.

Table 4-18. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection					
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**
CVWD	Metered	17	CVWD	WRP-1	Yes
CVWD	Metered	17	CVWD	WRP-2	Yes
CVWD	Metered	6,374	CVWD	WRP-4	Yes
CVWD	Metered	3,611	CVWD	WRP-7	Yes
CVWD	Metered	9,351	CVWD	WRP-10	Yes
Total		**19,370**			

Table 4-19. DWR 6-3R Wastewater Treatment and Outcomes within Service Area in 2025

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number	Method of Disposal	Plant Treats Wastewater Generated Outside the Service Area	Treatment Level	2025 Volumes (AFY)				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
WRP-1	Bombay Beach	Percolation ponds	7A330105021	Percolation ponds	No	Secondary, undisinfected	17	17	0	0	0
WRP-2	North Shore	Percolation ponds	7A330105032	Percolation ponds	No	Secondary, undisinfected	17	17	0	0	0
WRP-4	Thermal	CVSC	7A330102091	Stormwater channel outfall	No	Secondary, disinfected - 23	6,374	5,881	0	0	0
WRP-7	North Indio	Non-potable customers and percolation ponds.	7A330105071	Percolation ponds	No	Tertiary	3,611	1,328	1,794	0	0
WRP-10	Palm Desert	Non-potable customers and percolation ponds.	7A330105012	Percolation ponds	Yes	Tertiary	9,351	638	8,102	0	0
Total							**19,370**	**7,880**	**9,896**	**0**	**0**

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Table 4-20. DWR 6-4R Recycled Water Direct Beneficial Uses Within Service Area (AFY)

Name of Supplier Producing (Treating) the Recycled Water			Coachella Valley Water District					
Name of Supplier Operating the Recycled Water Distribution System			Coachella Valley Water District					
Supplemental Volume of Water Added in 2025			573 AF					
Source of 2025 Supplemental Water			Coachella Canal					
Beneficial Use Type	**Level of Treatment**	**General Description of 2025 Uses**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Landscape Irrigation (excludes golf courses)	Tertiary	HOAs and municipal landscaping	318	2,463	2,463	2,463	2,463	2,463
Landscape Irrigation (excludes golf courses)	Canal water	HOAs and municipal landscaping	573	435	435	435	435	435
Total			**891**	**2,898**	**2,898**	**2,898**	**2,898**	**2,898**

Table 4-21. DWR 6-5R 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual (AFY)

Use Type [1]	2020 Projection for 2025 (AFY)	2025 Actual Use (AFY)
Landscape Irrigation (excludes golf courses)	383	318
Total	**383**	**318**

[1] While there is irrigated agricultural land in CVWD's service area, agricultural irrigation water is not evaluated in this UWMP.

CVWD has long promoted the use of recycled water for irrigation purposes. In 2006, CVWD sponsored SB 1557, adopted by the California Legislature as Part 8.2 (CWC §32600-32603) of the County Water District Law which applies exclusively to CVWD. This law specifies that the use of potable water for non-potable uses such as cemeteries, parks, highway landscaped areas, new industrial facilities, and golf course irrigation is a waste and an unreasonable use. In 2014, AB 1896 amended this law (CWC §32601) to include the use of potable domestic water for landscaped common areas of residential developments maintained by a Homeowners Association as a waste and an unreasonable use. The law mandates the use of non-potable water (including recycled water) for these uses when the CVWD Board of Directors determines that the water is available, of adequate quality, reasonably priced, and will not adversely affect public health, water quality, groundwater rights, or the environment, and when regulatory agencies determine that applicable standards are met.

CVWD uses this law to encourage the use of both recycled water and Canal water for non-potable uses. In 2009, CVWD developed a standardized non-potable water use contract that mandates at least 80 percent of their demand be met with non-potable water. Non-potable water is priced at 85 percent of the cost of groundwater pumping plus applicable replenishment charges, with a 50 percent conservation charge applied when non-potable use falls below 80 percent.

Where practical, CVWD requires new developments to use recycled or non-potable water as a condition of receiving domestic and sanitation services from CVWD. CVWD remains committed to maximizing non-potable water use through continued infrastructure investment. Table 4-22 shows the expected increase in recycled water use due to the encouragement of recycled water use.

Table 4-22. DWR 6-6R Methods to Encourage Future Recycled Water Use – Water Code Section 10633(f)

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Infrastructure Investment	CVWD requires new developments (where practical) to use recycled or non-potable water as a condition of receiving domestic and sanitation services.	Current	2,517

4.6.2.6 Desalinated Water Opportunities

CVWD does not have direct access to ocean water or a significant quantity of brackish groundwater. CVWD has evaluated the use of desalinated shallow groundwater as part of its water supply portfolio. At this time, this opportunity has been deferred due to slower than anticipated growth.

4.6.2.7 Water Exchanges and Transfers

CVWD's relies on exchanges and transfers of imported water as a crucial source of supply for groundwater recharge in the Coachella Valley. CVWD has executed multiple agreements for exchanges and transfers of imported water, which are described in Chapter 3 of the RUWMP.

CVWD continues to explore additional opportunities to obtain additional imported water through transfers or exchanges.

CVWD currently has emergency interties with Indio, MSWD, and DWA. The combined capacities of these connections are in excess of 20 MGD.

4.6.2.8 Future Water Projects

CVWD recognizes the need for additional water supplies to meet projected water demands and prevent groundwater overdraft and is investing in new local and Statewide projects.

WRP-4 Recycled Water Improvement Project Phase 1

WRP-4 provides service to the Cities of La Quinta, Mecca, Palm Desert, and Thousand Palms. Under current operations, the secondary system treats about 2.0 MGD average daily flow and does not have tertiary treatment capacity. The treatment system produces secondary effluent which is discharged to the CVSC under a NPDES permit, which has a maximum month average daily effluent flow of 9.9 MGD. CVWD's tertiary treatment expansion at WRP-4 will be implemented in multiple phases. Phase 1, which will provide 1.0 MGD of total tertiary treatment capacity, includes a secondary effluent equalization basin, lagoon effluent pretreatment (if required), coagulation/rapid mix, Filter Building, and filters; expands the chlorine contact basins and chemical feed systems; adds a new recycled water storage basin (up to 177 million gallons [MG]); and adds a new recycled water pump station and pipeline to irrigators in the mid-Valley area. CVWD is currently preparing design and environmental compliance for a one MGD tertiary facility (blend of Canal and recycled water).

Sites Reservoir Project

Sites Reservoir is a 1.5 million acre-foot, off-stream reservoir proposed north of the Sacramento-San Joaquin Delta that would improve California's water reliability and resiliency in drier years for farms, families, fish, and fowl. It is designed to capture and store winter runoff from uncontrolled streams below the existing reservoirs in the Sacramento Valley.

In 2019, CVWD's Board of Directors approved participation in the Sites Reservoir Project (estimated 6,400 AFY). Administered by the Sites Project Authority, several amendments have been signed after that with the latest, Third Amendment, signed in 2022.

Delta Conveyance Project

The proposed Delta Conveyance Project (DCP) will help the SWP safely capture, move and store water amidst the rapid swings between wet and dry conditions that have become our new normal as the state's climate changes. The proposed project is a crucial part of the state's Water Resilience Portfolio and protects the state against future water supply losses caused by climate-driven weather extremes, sea level rise, and earthquakes.

In 2020, CVWD's Board of Directors approved participation in the DCP at 3.78 percent share (estimated 14,900 AFY between Table A and Article 21 supplies). Administered by DWR, the DCP is currently in the planning and environmental compliance phase.

4.6.2.9 Future Water Supply Projects

Table 4-23 provides a summary of expected future water supply projects. It is assumed that CVWD will receive additional imported supply from the Sites Reservoir and DCP via MWD's Colorado River Aqueduct along with existing SWP supplies.

Table 4-23. DWR 6-7R Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to CVWD (AFY)
WRP-4 Recycled Water Improvement Project	No	N/A	2029	Normal	1,120
Sites Reservoir	Yes	Sites Project Authority, MWD	2035	Normal	6,400
Delta Conveyance Project	Yes	DWR, MWD	2047	Normal	14,900

4.6.2.10 Summary of Existing and Planned Sources of Water

CVWD's sources of supply used in 2025 are summarized in Table 4-24 and CVWD's anticipated future supplies are shown in Table 4-25. These sources of supply are for municipal direct-use and do not include imported supplies which are used for groundwater replenishment or agricultural and other non-urban landscape irrigation.

Table 4-24. DWR 6-8R Actual Water Supplies

Water Supply	Additional Description	2025	
		Actual Volume (AFY)	Water Type
Groundwater	Indio Subbasin	95,952	Drinking Water
Groundwater	Mission Creek Subbasin	3,048	Drinking Water
Non-potable water	Blend of WRP-7 and WRP-10 and Coachella Canal (Municipal Users)	890	Non-potable water
Total		**99,890**	

Table 4-25. DWR 6-9R Projected Water Supplies

Water Supply	Additional Description	Projected Water Supply (AFY)				
		2030	2035	2040	2045	2050
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater	Indio Subbasin	92,800	94,594	95,225	96,098	96,976
Groundwater	Mission Creek Subbasin	3,033	3,292	3,291	3,296	3,300
Non-Potable Water	Blend of WRP-7 and WRP-10 and Coachella Canal	2,898	2,898	2,898	2,898	2,898
Total		**98,731**	**100,784**	**101,414**	**102,292**	**103,174**

4.6.2.11 Special Conditions

Climate change has the potential to affect Coachella Valley's two major sources of imported water: the Colorado River and the SWP. Potential effects of a hotter and drier climate could also increase water demand within the Coachella Valley. These potential impacts are discussed in Chapter 3.

4.6.3 Energy Use

CVWD has compiled data to document the energy used for water management operations. CVWD used the Total Utility Approach to estimate the energy intensity of its water management operations.

The results are summarized in Table 4-26.

Table 4-26. DWR O-1B Energy Intensity Reporting

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	1/1/2025	**Urban Water Supplier Operational Control**		
End Date	12/31/2025			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AFY	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		99,000 AFY	0	99,000 AFY
Energy Consumed (kWh)		62,642,801	0	62,642,801
Energy Intensity (kWh/volume)		633	0	633
Quantity of Self-Generated Renewable Energy				
	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Combination of Estimates and Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption records maintained by the agency.				
Narrative				
The energy use is specific to domestic wells and appurtenances for the district.				

4.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability by comparing total projected water use with expected water supply over the next 25 years in five-year increments, including a single dry year and multiple dry years. Reliability is a measure of a water system's expected success in managing water shortages. This chapter presents the reliability assessment for CVWD's service area.

4.7.1 Reliability Overview

CVWD's only direct source of urban potable water supply is local groundwater. Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions. Potential constraints on these supplies that could affect reliability are discussed in Chapter 3 of this RUWMP.

The "normal year" represents the average water supply conditions and availability to CVWD. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to CVWD. Though CVWD's vast groundwater in storage is not constrained in dry years, this RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. CVWD's water use data from the last 20 years was evaluated to understand demand response among its customer base. For CVWD, the single dry year demand represents 103 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to CVWD for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record, it represents a more accurate demand response to drought conditions due to conservation programs implemented in recent years by CVWD. For CVWD, the multiple dry year demand increases by two percent year-over-year from 102 to 110 percent of normal conditions.

Table 4-27 summarizes the water years used as the basis for urban water supply reliability assessment and the percent of average supply available for each base year.

Table 4-27. DWR 7-1R Basis of Water Year Data

	Available Supply if Year Type Repeats	
Year Type	**Base Year**	**Percent of Average Supply**
Average Year	2015-2024	100%
Single-Dry Year	2021	103%
Consecutive Dry Years 1st Year	2020	102%
Consecutive Dry Years 2nd Year	2021	104%
Consecutive Dry Years 3rd Year	2022	106%
Consecutive Dry Years 4th Year	2023	108%
Consecutive Dry Years 5th Year	2024	110%

4.7.2 Water Service Reliability Assessment

The reliability of the groundwater supply is dependent on reliable sources to replenish water extracted from the groundwater basin. To ensure a safe and reliable supply, regional water suppliers collaborate to manage groundwater via the Indio Subbasin Alternative Plan and Mission Creek Subbasin Alternative Plan. Since 1973 and 2002, respectively, CVWD has been using Colorado River water exchanged for SWP water to replenish groundwater in the Indio and Mission Creek Subbasins. While CVWD is susceptible to the uncertainty of supply and delivery from the SWP and the Sacramento-San Joaquin Delta due to legal,

environmental, and climatic restrictions, the Coachella Valley agencies' efforts in regional management of the groundwater basin have helped address long-term overdraft. Therefore, water supply reliability is expected to be good and fully reliable.

Groundwater in storage within Indio and Mission Creek Subbasins will be used in dry years to support potential differences between demands and supply. The Indio Subbasin has a storage capacity of approximately 29.8 MAF and the Mission Creek Subbasin has a storage capacity of approximately 2.6 MAF (DWR, 1964). It is capable of meeting the water demands of CVWD for extended periods during normal, single-dry and multiple-dry year conditions.

Due to CVWD's reliance on local groundwater sources and its ability to secure imported water for storage within the Indio and Mission Creek Subbasins, short-term drought situations have historically had a negligible effect on CVWD's ability to supply water to its customers. CVWD will continue to request the maximum allocation from the SWP and will obtain and store as much available water as possible to prevent supply deficiencies and to preserve the groundwater basin.

The following tables provide CVWD's projected water supplies and demand in a normal year, single dry year, and multiple dry years. The retail supplies and demands presented in the tables below include recycled water and Canal water delivered to CVWD's municipal customers from WRP-7 and WRP-10. Agricultural and golf course demands supplied by non-potable sources are not evaluated as urban uses. Instead, recycled water is used to offset the groundwater pumping of private well owners (agriculture and golf courses) to eliminate overdraft.

4.7.2.1 Normal Year

Supplies and demands for the normal year conditions for each five-year increment are summarized in Table 4-28. This analysis does not include WSCP use reduction in a normal year. The supply and demand comparison for the normal year results in no shortages.

Table 4-28. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	**98,731**	**100,784**	**101,414**	**102,292**	**103,174**
Groundwater	95,833	97,886	98,516	99,394	100,276
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY) From DWR Table 4-2R	**98,731**	**100,784**	**101,414**	**102,292**	**103,174**
Potable Water Demand	95,833	97,886	98,516	99,394	100,276
Non-Potable Water Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

4.7.2.2 Single Dry Year

The single dry year represents a "worst-case" scenario for demand response, jumping to 103 percent of normal conditions in a single year. Supplies and demands for the single dry year conditions for each five-year increment are summarized in Table 4-29. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable as groundwater in storage in the Indio and

Mission Creek Subbasins is available to serve increased demand. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 4-29. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	**102,017**	**104,138**	**104,789**	**105,697**	**106,608**
Groundwater	99,119	101,240	101,891	102,799	103,710
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**102,017**	**104,138**	**104,789**	**105,697**	**106,608**
Potable Demand	99,119	101,240	101,891	102,799	103,710
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

4.7.2.1 Multiple Dry Years

Reliability during a multiple-dry year scenario was assumed to be similar to the average year scenario for reasons discussed previously. Supplies and demands for the single dry year conditions for each five-year increment are summarized in Table 4-31. The multiple dry year urban water supply reliability is 100 percent, as groundwater in storage in Indio and Mission Creek Basins will be used to supplement increased demand. In five consecutive dry year conditions, there are no shortages. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. Demand is expected to be offset, however, in the second through fifth years of a consecutive dry year period due to efficiencies realized from the implementation of CVWD's WSCP. This reliability forecast conservatively assumes that the WSCP will reduce water use by three percent in the second through fifth years of a multiple year drought.

Table 4-30. DWR 7-4R Multiple Dry Years Supply and Demand Comparison

	2030	2035	2040	2045	2050
First Year					
Supply Totals (AFY)	**100,706**	**102,800**	**103,442**	**104,338**	**105,238**
Groundwater	97,808	99,902	100,544	101,440	102,340
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**100,706**	**102,800**	**103,442**	**104,338**	**105,238**
Potable Demand	97,808	99,902	100,544	101,440	102,340
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply Totals (AFY)	**102,680**	**104,816**	**105,470**	**106,384**	**107,301**
Groundwater	99,782	101,918	102,572	103,486	104,403
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**102,680**	**104,816**	**105,470**	**106,384**	**107,301**
Potable Demand	99,782	101,918	102,572	103,486	104,403
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	0	0
WSCP Use Reduction	3,109	3,174	3,194	3,221	3,249
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	**104,655**	**106,831**	**107,498**	**108,430**	**109,365**
Groundwater (not desalinated)	101,757	103,933	104,600	105,532	106,467
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**104,655**	**106,831**	**107,498**	**108,430**	**109,365**
Potable Demand	101,757	103,933	104,600	105,532	106,467
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	3,169	3,235	3,255	3,283	3,312
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	**106,629**	**108,847**	**109,527**	**110,476**	**111,428**
Groundwater (not desalinated)	103,731	105,949	106,629	107,578	108,530
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**106,629**	**108,847**	**109,527**	**110,476**	**111,428**
Potable Demand	103,731	105,949	106,629	107,578	108,530
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	3,229	3,296	3,317	3,345	3,374
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

	2030	2035	2040	2045	2050
Fifth Year					
Supply Totals (AFY)	**108,604**	**110,863**	**111,555**	**112,522**	**113,492**
Groundwater (not desalinated)	105,706	107,965	108,657	109,624	110,594
Non-Potable Water	2,898	2,898	2,898	2,898	2,898
Use Totals (AFY)	**108,604**	**110,863**	**111,555**	**112,522**	**113,492**
Potable Demand	105,706	107,965	108,657	109,624	110,594
Non-Potable Demand	2,898	2,898	2,898	2,898	2,898
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	3,289	3,357	3,378	3,407	3,437
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

[1] 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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

CVWD implements many programs to maximize the water resources available to meet demands, including but not limited to groundwater replenishment with imported water, direct use and recharge of recycled water, conversion of groundwater uses to Canal water, and comprehensive water conservation practices such as tiered water rates, landscaping ordinances, outreach and education. The groundwater replenishment programs establish a comprehensive and managed effort to reduce and eliminate overdraft of local groundwater resources. These programs allow CVWD and its partner agencies to maintain the groundwater basin as the primary water supply and to recharge the groundwater basin as other supplies are available and needed to meet existing and projected demands.

4.7.3 Management Tools and Options

CVWD was formed in 1918 with the purpose of protecting the water supplies of the Coachella Valley. CVWD has acquired imported water supplies to replenish local groundwater supplies and continues to evaluate additional opportunities to increase supply reliability. Significant investments have been made to implement water conservation programs, acquire additional SWP Table A and supplemental supplies, construct groundwater replenishment facilities to recharge the groundwater basin, and convert groundwater users to Canal water and recycled water. These programs have had a significant effect on stabilizing groundwater levels and eliminating overdraft.

CVWD is acting as a GSA in both the Indio and Mission Creek Subbasins to help manage the groundwater basin and achieve groundwater sustainability. CVWD has implemented several programs to maximize the use of local water supplies and reduce demands, including significant recycled water and water conservation programs (see Section 4.9 for DMMs currently in place by CVWD). CVWD has also participated in the CVRWMG with other public water agencies in the Coachella Valley; more information about this group's activities to increase supply reliability is included in Chapters 2 and 3 of the RUWMP.

4.7.4 Drought Risk Assessment

The five-year Drought Risk Assessment (DRA) is intended to evaluate current water supply availability by simulating demand and supply for the next five years under multiple dry year conditions.

Demands are expected to increase from current 2025 demands based on the assumptions during multi-dry year periods. For CVWD, the multiple dry year demand increases by two percent year-over-year from 102 to 110 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands from existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify and respond to a potential shortage are described in CVWD's WSCP. This DRA conservatively assumes that the WSCP will reduce water use by three percent in the second through fifth years of a multiple year drought. Based on the reliability analysis presented above, the supply of groundwater is fully reliable in a five-year drought scenario, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 4-31. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 4-31. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	101,888
	Total Supplies (AFY)	101,888
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/(Shortfall)	0
	Resulting Percent Use Reduction from WSCP Action	**0%**
2027	Gross Water Use (AFY)	103,886
	Total Supplies (AFY)	103,886
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	3,053
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	**3%**
2028	Gross Water Use (AFY)	105,883
	Total Supplies (AFY)	105,883
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	3,112
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	**3%**
2029	Gross Water Use (AFY)	107,881
	Total Supplies (AFY)	107,881
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	3,171
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	**3%**

2030	Gross Water Use (AFY)	109,879
	Total Supplies (AFY)	109,879
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	3,229
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	**3%**

[1] 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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

4.8 Water Shortage Contingency Plan

CVWD has developed a WSCP that outlines its strategy for assessing and responding to potential water shortages. Building on the region's overall high water supply reliability, the WSCP prepares for risks such as prolonged drought, infrastructure failure, regulatory restrictions, contamination, and other emergencies. It establishes procedures for annual water supply and demand assessments, coordination among regional water agencies, and use of six standardized shortage levels that range from minimal conservation requirements to severe, mandatory restrictions when more than 50% supply reduction occurs.

To manage shortages, the WSCP details a suite of supply augmentation methods, demand reduction actions, operational adjustments, communication protocols, and enforcement mechanisms. Actions escalate by shortage level and may include outdoor irrigation limits, reduced water budgets, expanded public outreach, drought surcharges, mandatory rationing, and prohibitions on potable outdoor use. The WSCP also describes financial implications, monitoring and reporting requirements, seismic risk considerations, and emergency response coordination with regional partners. It sets forth legal authorities supporting plan implementation and provides the procedures for adoption, future amendments, and public engagement.

The CVWD WSCP is included in Appendix C of this RUWMP.

4.9 Demand Management Measures

This section describes CVWD water conservation goals and provides an overview of its existing and proposed DMMs to increase water use efficiency.

4.9.1 Existing Demand Management Measures

CVWD implements the DMMs identified in CWC §10631 in addition to other DMMs. DMMs refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a reliable reduction in water demand. The following subsections summarize the current DMMs in place and implementation over the past five years.

4.9.1.1 Water Waste Prevention Ordinances

CVWD implements water waste restrictions during drought which impose mandatory restrictions on water use. Most recently, CVWD's Ordinance 1422.7 was imposed in response to the State of California's statewide water conservation emergency regulations, which was enacted in 2022 and expired in 2023. This ordinance included prohibitions on inefficient water use and recommended activities for customers and homeowners associations for water use efficiency. Ordinance 1422.7 was repealed by Ordinance 1422.8 in 2023. Detail on the implementation of water waste prevention measures during times of drought is provided in CVWD's WSCP, which is included in Appendix C.

In addition to drought response measures, provisions of CVWD's Landscape Ordinance 1302.5 (revised July 2020) include specific prohibitions and penalties for water waste. These provisions from Section 3.15.040, Part C are provided below:

1. Water waste resulting from inefficient landscape irrigation including runoff, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification. Penalties for violation of these prohibitions are established in Section 3.15.070.
2. Customers who cause water waste may have their service discontinued.
3. Customers who appear to be exceeding the Maximum Applied Water Allowance may be interviewed by the CVWD Water Management Department to verify customer water usage to ensure compliance.

Additionally, CVWD's Landscape Ordinance proactively prohibits the installation of non-functional turf in new development, reducing future outdoor water use by promoting more efficient landscaping.

4.9.1.2 Metering

One hundred percent of CVWD's urban water customers are metered. The meters are billed based on volume of use. CVWD has mixed use meters serving both domestic use and landscape irrigation. CVWD's Landscape Ordinance 1302.5, Section 3.15.030, Part D specifies:

> Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or by a privately owned submeter installed at the irrigation point of connection on the customer service line.

4.9.1.3 Conservation Pricing

Conservation pricing provides incentives to customers to reduce average or peak use, or both. CVWD uses water commodity rates for its domestic water, non-potable (including Canal and recycled) water, and groundwater replenishment services. For its urban water system, CVWD has used a water budget-based tiered rate structure that discourages wasteful water use since 2009.

Every residential customer is given a personalized water budget based on the number of people living in the home, the size of the home's landscaped area (budgeting more water to those with larger landscapes), and daily weather (budgeting more water during hotter months). Customers pay the tier rate for all water used within that tier.

CVWD is currently in the process of updating water rate studies for its domestic water, Canal water, and replenishment assessment charges. The domestic water rates are proposed to be adjusted to continue to encourage additional water conservation and generate the revenue required to meet District expenses, consistent with cost-of-service principles and legal requirements.

4.9.1.4 Public Education and Outreach

CVWD implements several public information programs, with its website as a primary communication tool. The purpose of these programs is to educate the public on conservation programs being planned and/or implemented by CVWD, as well as educational tips that customers can use to lower their water usage.

CVWD has a large section on its website (**www.cvwd.org/conservation**) devoted to water conservation and education. Started in 2005, the webpage provides information on all of the agency's conservation programs, including conservation rebate programs, current water-use restrictions, upcoming workshops, conservation tips (in the form of videos, fact sheets and guides), a guide for proper irrigation, and a link to download CVWD's landscaping book, *Lush and Efficient: Landscape Gardening in the Coachella Valley*. In addition, regional daily and monthly weather and reference ET rate information is provided to guide water users. The conservation section received 39,953 page views in 2025.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (https://cvwatercounts.com/) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact. Part of the regional program also includes a "Water Counts Academy," which affords local residents an opportunity to learn more about water in our community.

Publications – Lush and Efficient

CVWD publishes a comprehensive book on water-efficient landscaping in the Coachella Valley titled *Lush and Efficient: Landscape Gardening in the Coachella Valley*. The guide draws on the expertise of local irrigation and landscaping specialists to provide users with step-by-step instructions and techniques for creating and maintaining water-efficient landscapes, plus hundreds of low-water using plants that thrive in the desert. First published in 1988, the popular book is available for free from CVWD's website. Hard copies are also readily available for free at special events and for purchase for a nominal fee.

Demonstration Gardens

The majority of urban potable water distributed by CVWD is used outdoors, with about 70-80 percent being used to maintain landscapes. Since CVWD's boundaries fall within DWR's highest ET zone (18), it takes more water to grow landscapes here than in any other portion of California. The Coachella Valley shares this highest water use designation with the Palo Verde Valley, Imperial Valley, and Death Valley.

One way to reduce landscape water use is to use native desert plants in landscaping. Desert native plants have evolved both anatomical and physiological mechanisms that allow them to survive on annual rainfall alone.

Within the Coachella Valley, which is one of the lowest annual rainfall areas in the state, desert plants from other, wetter deserts can be utilized with a minimum amount of irrigation. CVWD has identified and illustrated these plant choices in its publication *Lush and Efficient: Landscape Gardening in the Coachella Valley*. CVWD's two demonstration gardens, one at its headquarters in Coachella and the other at its office in Palm Desert, provide the landscape industry and the general public an opportunity to observe the plants in a landscape setting.

Landscape and Leak Detection Workshops

CVWD started offering an annual horticultural workshop more than 25 years ago with about 30 people attending a half-day session at College of the Desert. This program steadily grew over the years to a culmination of 220 people participating in 2010. In order to make the workshop more manageable, the structure was changed, and workshops are now held throughout the year with different topics continually being introduced.

Speakers include CVWD staff and community members who are experts in various fields related to landscaping. Participants are given a free copy of *Lush and Efficient: Landscape Gardening in the Coachella Valley* and other xeriscape information. Attendance at each event ranges from 50-75 people.

Community Outreach

CVWD holds in-person workshops sporadically throughout the year to engage the local community in water conservation. They also hold WaterWise conservation events for residents who want to learn more about efficient water use and desert horticulture. CVWD also has previously recorded resources available on its website, including virtual workshops and tours.

CVWD's marketing/advertising program includes print, radio, billboards, social media, and television ads primarily focused on water conservation, CVWD services, and promotion of workshops.

Email and Social Media Campaigns

CVWD's e-notification program began in 2014 to provide a voluntary email subscription service to customers. As of February 2025, email notification subscriptions include the following topics and number of subscribers:

- Board meetings - 284
- Events & workshops - 785
- News releases – 1,848
- Tours – 971
- Water quality reports – 698

CVWD launched its Facebook page in 2014, its Twitter page in 2017, and its Instagram account in 2018. As of February 2026, these social media pages had 2,937044 followers on Facebook, 813563 on X (Formerly Twitter) and 6,506965 on Instagram.

Social media posts include information about services, construction projects, milestones, employee highlights, conservation tips, traffic advisories for construction work and announcements of new policies and programs.

School Education Program

CVWD has an established school education program which began in 1992. CVWD has two full-time teachers on staff implementing the program. Presently, there are four components to the program. The first is classroom presentations on a variety of water-related topics with an emphasis on water conservation. The second component is facility tours, the third is science fair promotion and sponsorship, and the fourth is educator workshops targeted teachers. CVWD's teachers make audience-specific water education presentations to students at every level from pre-school to college. All school lesson plans are developed using California State Board of Education Standards and Frameworks. In addition to classroom presentations, CVWD's teachers host several tours of water-related facilities and judge science fairs for the public and private schools within the agency's service area. Annual workshops targeted at K-12 educators provide tools and activities for lessons in history and social science through an environmental lens.

4.9.1.5 Programs to Assess and Manage Distribution System Real Loss

CVWD's water loss program evaluates both apparent and real water loss. The programs and practices listed below constitute water loss reduction efforts:

- **Production Well Meter Testing.** This consists of CVWD testing all our production well meters twice per year. This is to ensure meter accuracy and data validity to accurately calculate our water loss when performing water loss audits. If the meter is not within the acceptable tolerance, it is replaced.
- **Customer Meter Testing.** CVWD tests a random representative sample of our customer meter population. The testing process includes minimum, intermediate, and maximum flow rates. All tested meters are required to be within a range based on the AWWA M6 standard for "accuracy limits" for size and type of meter; if a meter fails one of these flow rates, the meter is replaced. Test data is used in the AWWA Water Loss Audit Software to calculate customer meter inaccuracy.
- **Proactive Meter Replacement**. CVWD replaces meters as part of its ongoing preventive maintenance program using industry standards and a data-driven approach. Routine meter accuracy testing, along with meter attributes such as age, type, and service history, are used to inform replacement decisions. This strategy helps maintain accurate customer billing and reduces water loss associated with inaccurate meters.
- **Leak Detection.** CVWD's leak detection program surveys 80-110 miles of main a month, the goal is to proactively find and fix unreported non-surfacing leaks in the distribution system. The leak detection crew surveys the entire distribution system for leaks over an approximately two-year period.

- **Leak Repair.** CVWD fixes surfacing and non-surfacing leaks within five days for non-emergency leaks. Five days is generally the time between the notification of the leak and the fixing of the leak. Emergency leaks are prioritized and fixed within one day of notification. Non-surfacing/unreported leaks are scheduled and fixed accordingly.
- **District Site Use Water Meters.** CVWD has installed meters at all its domestic sites to accurately track site usage. This data helps provide consumption data that is entered into the AWWA Water Loss Audit Software.
- **Meter Reading.** CVWD's meter reading system identifies meters with no/low consumption. Staff are also trained to identify potential faulty meters. A work order is entered for replacement if the meter is not operating correctly. Comparison reading is also conducted to compare Automatic Meter Reads to their actual read. This practice can help identify faulty electronics or set up errors in the metering system.
- **Meter Repair Work Order Prioritization.** Work orders that negatively impact billing and/or contribute to water loss are considered "priority" and are completed as soon as possible. It is typical to have less than a two-week backlog on these types of priority work orders. Making these a priority minimizes water loss.
- **Billing Reports.** Billing runs exceptions reports to identify low or zero consumption anomalies. These reports can help locate a potential problem in the billing system or the meter, which can be investigated and repaired.
- **Smart Home Water Monitors.** CVWD partnered with California Water Efficiency Partnership to expand conservation offerings to customers through the Direct Distribution Program. More than 1,500 Flume Smart Home Water Monitor devices have been purchased by customers since the program began in 2023. These smart monitors continually monitor water usage and send notifications when leaks occur.

4.9.1.6 Water Conservation Program Coordination and Staffing Support

CVWD currently has a full-time water conservation manager, as well as support staff for CVWD's conservation programs. Supporting positions include a water management supervisor, lead water management specialists, water management specialists, water management technicians, and water management aides. Beginning in 2001 with a staff of only two people, the section has now grown to a staff of 14 people tasked with carrying out the agency's various conservation programs.

4.9.1.7 Other Demand Management Measures

CVWD has several other DMMs including landscape conservation and incentive programs, residential efficiency programs, and golf and agricultural conservation programs. These are described briefly in the following subsections.

Large Landscape Conservation Programs and Incentives Program

There are two principal groups of large landscape customers within the CVWD service area – those with separate irrigation meters on the urban water system, and those with private wells for golf course or other large landscape irrigation. Irrigation accounts for approximately 70 to 80 percent of total urban water usage. Consumption by users with separate irrigation meters represents over 20 percent of total CVWD domestic water consumption. There are also many golf course irrigation users who are not CVWD urban water users, but produce groundwater from private wells. One of CVWD's goals is to reduce water use by these large landscape pumpers. The large landscape and incentive programs include the landscaper certification program, water audits for large water users, the model landscape ordinance, landscape plan checks, random inspections, and rebate programs. These incentives are described in more detail in the below sections.

Landscaper Certification Program

Commercial and recreational landscape irrigation systems are often improperly installed, poorly maintained, and inefficiently scheduled by transitory landscape maintenance personnel who are often unskilled and uneducated in the science and practice of landscape irrigation efficiency. Career landscape maintenance professionals have little or no irrigation science educational opportunities.

To address this education gap, CVWD has partnered with College of the Desert (COD), a local community college with an established Landscape Management Program, along with Coachella Valley Association of Governments (CVAG), local cities, Riverside County, and water suppliers to implement the Landscaper Certification Program (LCP) for professional landscapers that focuses on water use efficiency. The LCP involves two courses that establish certification criteria for incorporation into each city's business license qualification requirements. The certification is a requirement to obtain or renew a professional landscaping business license in any city or county area within the Coachella Valley.

CVWD developed the curriculum of the LCP using existing staff that hold licenses and certifications in irrigation efficiency, plant water use, horticultural practices, arboriculture, and landscape/golf course irrigation auditing. CVWD ensures the curriculum is high quality by asking for review from industry educators such as COD instructors and industry professionals. CVWD and COD worked together to create the course and certification based on the developed curriculum. CVWD and CVAG worked with the cities on an amendment to existing ordinances to establish the business license requirement.

Water Audits for Large Water Users

The purpose of the Large Landscape Irrigation Audit Program is to assist users in maximizing the efficient operation of their irrigation system by measuring performance, generating irrigation schedules, and recommending improvement actions. The goals of this audit program are to determine the irrigation uniformity, efficiency and application rate of each audited site, suggest modifications in design, operation, maintenance and scheduling and estimate the water and energy savings associated with the suggested modifications. A report summarizing the audit’s findings and recommendations is sent to the irrigation manager.

Audit sites are chosen based on excessive water consumption, or in response to a request for audit services. CVWD’s Water Management Specialist evaluates and approves each site. All auditors must take the Irrigation Association’s Landscape Irrigation Auditor course and pass the Certified Landscape Irrigation Auditor examination, or equivalent.

Once a site is approved for audit, the owner or operator of the facility is contacted and an appointment is made to conduct the audit. After measurements and calculations are completed, a summary report and recommendations are delivered and explained to the site operator by the auditor. The Large Landscape Irrigation Audit Program operates continuously, and completes approximately 20 landscape audits per year. A study in 2005 found that the average homeowners association saved 3.1 AFY as a result of implementing some of the audit recommendations.

Model Landscape Ordinance

The Water Conservation in Landscaping Act of 2006 (AB 1881, Laird) required cities and counties to adopt water conservation ordinances by January 1, 2010. In accordance with the law, the DWR prepared an updated MWELO. For all cities and counties that do not adopt their own conservation ordinances, DWR’s updated MWELO would apply within their jurisdiction by January 1, 2010.

In response to this law, CVWD worked with CVAG, local cities, Riverside County, other water suppliers, and the Building Industry Association for the acceptance of CVWD’s Landscape and Irrigation System Design Ordinance No. 1302.5. The most recent revisions to this ordinance were adopted in July 2020.

Plan Checking for Compliance with Landscape Ordinance

New and rehabilitated landscape sites are required to submit water efficient landscape plans to CVWD’s Water Management Department for a plan check prior to construction. The plan check is conducted to

ensure that the water efficiency features of the new landscape meet the provisions of CVWD's Landscape Ordinance No. 1302.5. Each proposed site is given an annual maximum water allowance based on landscaped area, plant water use zone, low-moderate landscape plant water use rates and high irrigation system application efficiency. The landscape designer must utilize a combination of plant choice and irrigation system choice such that the estimated annual water use of the finished landscape does not exceed the annual maximum water allowance assigned. In addition, certain irrigation system design practices are mandated, such as setting sprinkler irrigated areas at least 24 inches back from street curbs, or prohibited, such as overhead sprinkling of street median strips. Since 2010, CVWD has performed 6,778 landscape plan checks for new and rehabilitated landscape sites.

Random Inspections of Landscape Projects for Compliance with Landscape Ordinance

As mentioned in the previous section, all new and rehabilitated landscape sites are required to submit water conserving landscape plans to CVWD's Water Management Department for a plan check prior to construction. The plan check is conducted to ensure that the water efficiency features of the new landscape meet the provisions of CVWD's Landscape Ordinance.

In order to ensure that contractors are installing plan-checked, water efficient landscapes as approved, CVWD has implemented a random inspection program. The inspections signal to the landscape construction industry that CVWD is spot checking completed landscape irrigation systems for plan-check compliance and will require errors and omissions to be corrected or face the possibility of discontinued water service.

Smart Controller Rebate Program

Beginning in 2005, CVWD instituted a smart irrigation controller rebate program to financially assist large water users in reducing landscape irrigation water consumption by purchasing an advanced irrigation controller capable of synchronizing their landscape irrigation schedules with seasonal variations in Coachella Valley reference evapotranspiration (ETo) rates.

ETo is a scientific description of the rate at which plant water use varies with the weather. Since the weather changes from season-to-season, week-to-week and even day-to-day, programming irrigation controllers frequently and efficiently remains one of the landscape industry worker's most neglected tasks. CVWD's program is specifically aimed at encouraging the use of "smart" irrigation clocks that reprogram themselves according to periodic variations in ETo after the initial calibrating program has been professionally installed.

CVWD initially offered this program to residential customers in November 2005 and expanded the program to large landscape customers in March 2008. For residential customers, CVWD staff will install and program the "smart" controller at no cost to the customer. For large landscape customers, CVWD will rebate 75% of the cost of the controller. Since 2010, CVWD has installed 5,695 smart controllers for residential customers and has issued 2,324 rebates to large landscape customers that installed smart controllers.

Landscape Conversion Rebate Program

Since 2007, CVWD has offered a rebate to its customers for converting their outdoor grass landscaping to desert-friendly landscaping, which requires less irrigation. CVWD's landscaping guide, *Lush & Efficient: Landscape Gardening in the Coachella Valley*, provides guidelines on which plants work best in the hot, arid climate. For residential properties, the rebate consists of $2 per square foot of landscaping or turf, up to $20,000 per project. For homeowners associations and commercial properties, the rebate consists of $2 per square foot of landscaping or turf, up to $50,000 per project. Since 2010, 6,529 residential and 1,802 commercial/HOA rebates have been issued, amounting to a total of 26,523,482 square feet of turf conversion.

CVWD performed a study of smart controllers using actual customers after having converted their landscaping and found that, on average, water savings amounted to 36% as a result of landscape conversion.

Residential Ultra-Low-Flush Toilet Replacement Rebate Program

Ultra-low-flush toilets (ULFT) conserve water by utilizing far less water than older, less efficient toilets. An ULFT uses less than 1.6 gallons per flush. In addition to direct conservation benefits, the promotion and use of these toilets has social value as it brings conservation products in direct contact with area users, thereby raising awareness of water conservation efforts.

CVWD has had a toilet rebate program since 2011. The agency provides a rebate of $100 for each toilet replacement plus $10 for reimbursement of any recycling fees, which will cover approximately half the cost of purchasing and installing a ULFT. Since 2010, a total of 8,083 rebates have been issued for ULFT replacements.

In addition to the rebate program, ULFTs are required for all new construction per plumbing code requirements. ULFTs were first introduced to the U.S. market in 1980, and the manufacturing of older, less efficient toilets designs was halted shortly thereafter in 1992 when the state mandated all new toilets must be ULFTs. Industry estimates are that natural replacement of residential toilets occurs every 50 years or at a rate of about 2 percent per year. Using this methodology, approximately 30 percent of the toilets from pre-1992 houses would still be installed in 2025.

Residential High-Efficiency Washing Machine Replacement Program

As of 2018, clothes washers that have earned the ENERGY STAR certification use 14 gallons of water per load, compared to the 20 gallons used by a standard machine. CVWD now provides a high-efficiency washing machine rebate, offering a maximum of $150 rebate per installed washing machine. Washing machine must be ENERGY STAR certified with an Integrated Water Factor of 4.5 or less.

The promotion and use of high-efficiency washing machines has social value as it brings conservation products in direct contact with area users, thereby raising awareness of water conservation efforts. Furthermore, the use of these products has the potential to reduce customer water, wastewater, gas and electric bills. This would reduce the need for groundwater pumping and replenishment, collection, treatment and the subsequent reuse or disposal of wastewater, as well as the numerous environmental benefits of reducing energy consumption.

Hot Water Recirculating Pump Rebate Program

CVWD offers a rebate program for residential customers who install a Hot Water Recirculating Pump in their home. Hot water recirculating pumps save water and energy by reducing the wait time for hot water to arrive at the faucet or shower. Research shows that hot water recirculating pumps can save anywhere from 3,000 to 12,000 gallons of water per year. CVWD will offer a maximum $125 rebate for installation or the cost of the recirculating pump, whichever is less.

4.9.2 Implementation of DMMs

CVWD is committed to conservation and water use efficiency to balance its sustainable water supply, and plans to continue its conservation program during the next five years. DMM implementation from program inception through fiscal year 2025 is summarized in Table 4-32.

Table 4-32. Demand Management Measure Implementation Summary

Program	Completed Since Program Inception	Completed 2016-2020	Completed 2021-2025
Landscape Plan Check	6,778	1,584	2,529
Residential Smart Controller Installations	5,695	2,010	884
Lange Landscape Smart Controller Rebates	2,324	797	665
Residential Turf Conversions	6,529 (9,281,355 square feet)	2,998 (4,006,245 square feet)	2,233 (3,325,233 square feet)
Commercial/HOA Turf Conversions	1,802 (17,342,127 square feet)	863 (8,067,213 square feet)	517 (4,544,580 square feet)
Water Waste Investigations	6,640	3,849	2,023
Toilet Rebates	8,083	4,187	3,054

CVWD plans to continue implementing DMMs to reduce per capita water use, reduce overall groundwater production, and maintain water supply reliability in all climate conditions.

4.10 Plan Adoption, Submittal, and Implementation

This section includes a discussion of CVWD's process for adopting, submitting, and implementing the RUWMP and CVWD's WSCP.

4.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. CVWD issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and CVWD's WSCP. CVWD provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 4-33, and the notification letters are included in Appendix A of the RUWMP. CVWD provided an additional notice to the cities and counties with the time and date of the public hearing.

Table 4-33. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
La Quinta	Yes	Yes
Indio	Yes	Yes
Coachella (Coachella Water Authority)	Yes	Yes
Palm Desert	Yes	Yes
Cathedral City	Yes	Yes
Indian Wells	Yes	Yes
Rancho Mirage	Yes	Yes
County		
County of Riverside Transportation and Land Management Agency - Planning Department	Yes	Yes
Riverside County Flood Control and Water Conservation District	Yes	Yes
Riverside County Department of Public Health	Yes	Yes
Imperial County Planning and Development Services	Yes	Yes

CVWD published a notice of the public hearing in a local newspaper two weeks and one week before the public hearing itself to inform the public of the meeting time and place, with the location of where the draft 2025 RUWMP and WSCP were available for review. Copies of the published notices are included in Appendix A.

4.10.2 Public Hearing and Adoption

CVWD held a public hearing on May 27, 2026, located at Coachella Valley Water District, 75525 Hovley Ln E, Palm Desert, CA 92211 to hear public comment and consider adopting this RUWMP and CVWD's WSCP. As part of the public hearing, CVWD provided information on CVWD's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and CVWD's WSCP took place before the adoption of the plans, which allowed the opportunity to modify the plans in response to public input before adoption. After the hearing, the plans were adopted as prepared or as modified during the hearing.

The adoption resolutions for the RUWMP and CVWD's WSCP are included in Appendix F.

4.10.3 Plan Submittal

CVWD will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to all cities and counties to which CVWD supplies water within 30 days of adoption.

CVWD is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

4.10.4 Public Availability

The RUWMP and CVWD's WSCP will be available on the CVWD website for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at CVWD's office (see address below) during regular business hours.

Coachella Valley Water District
51501 Tyler Street
Coachella, CA 92236

The final documents will also be posted on CVWD's website at www.cvwd.org/543/Urban-Water-Management-Planning.

4.10.5 Amending an Adopted UWMP or WSCP

If CVWD identifies the need to amend the adopted RUWMP or CVWD's WSCP, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended RUWMP.

Chapter 5 Coachella Water Authority

5.1 Introduction

This chapter describes information specific to Coachella Water Authority (CWA) and its water use efficiency programs. As an urban water supplier, CWA is required to prepare a UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies, and this chapter contains information specific to CWA.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWMP.

5.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 5.1 - Introduction.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 5.2 - Plan Preparation.** Provides information on CWA's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 5.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and CWA's organizational structure and history.
- **Section 5.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within CWA's service area.
- **Section 5.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes CWA's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 5.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to CWA. Includes discussion of potential recycled water uses and supply availability.
- **Section 5.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of CWA's water supply and projects the reliability for the next 25 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 5.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides CWA's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 5.9 - Demand Management Measures.** Describes CWA's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 5.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by CWA to adopt and submit the UWMP and to make it publicly available. Includes a discussion of CWA's plan to implement the UWMP.
- **Appendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

5.1.2 UWMPs in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 2 of the RUWMP.

5.1.3 UWMPs and Grant or Loan Eligibility

CWA has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans.

5.1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The participating agencies' approach to demonstrating reduced reliance on the Delta is discussed in Chapter 3 of the RUWMP. The analysis of reduced Delta reliance is provided in Appendix B.

5.2 Plan Preparation

This section provides information on CWA's process for developing the RUWMP, including efforts in coordination and outreach.

5.2.1 Plan Preparation

In accordance with the CWC, urban water suppliers must develop a UWMP every five years. An "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. CWA supplies approximately 7,800 AFY to 9,500 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

5.2.2 Basis for Preparing a Plan

CWA is a retail public water supplier that meets the definition of an urban water supplier with over 9,500 municipal water service connections. CWA operates a single Public Water System, with information summarized in Table 5-1.

Table 5-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
3310007	Coachella Water Authority	9,534	7,782
Total		**9,534**	**7,782**

5.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participation in an area wide, regional, watershed, or basin-wide urban water management plan. CWA is participating in the Coachella Valley RUWMP.

5.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

5.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. CWA is a retail agency and does not currently sell wholesale water. Table 5-2 shows CWA's supplier identification information used throughout this report.

Table 5-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of measure used in UWMP	AF

5.2.6 Coordination and Outreach

CWA does not receive water from a wholesale supplier and meets all its water demands through its own supplies. CWA does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

5.3 Service Area Description

This section provides information on CWA's service area, population and demographics.

5.3.1 General Description

The City of Coachella (City) is a desert community of approximately 42,000 people located at the eastern end of the Coachella Valley, in Riverside County, California. The City is located southeast of the San Gorgonio Pass, east of the San Jacinto and Santa Rosa Mountains, and north of the Salton Sea. The current City limits encompass over 20,000 acres, and the sphere of influence (SOI) encompasses approximately 13,000 additional acres around the City. The City is responsible for the water service for its residents. Administered and managed by the Utilities General Manager under direct supervision of the City Manager, CWA is the municipal utilities department of the City responsible for the potable water and sanitary wastewater systems. CWA oversees the maintenance, operation and treatment of water distribution and wastewater collection. Additionally, CWA focuses on environmental compliance issues relating to water quality, pretreatment, stormwater, documentation of illegal hazardous waste disposal, and NPDES permits.

Existing land uses within the City consist primarily of single and multi-family residential. There is a commercial/light industrial zone along the freeway corridor, agricultural zone east of Highway 86/111, and a heavier industrial zone in the southern part of the City. Full buildout of the City's SOI, for a total service area of approximately 53 square miles, is not anticipated until sometime after 2050.

The City provides the following water-related services: domestic water delivery, wastewater collection and reclamation, and local drainage control. In addition, the City manages the Coachella Sanitary District, which operates a wastewater treatment facility. The City may develop a recycled water system in the future.

5.3.1.1 Domestic Water Delivery

CWA's current water supply source is groundwater from the Indio Subbasin produced from CWA owned and operated wells. Currently, the City limits extend beyond CWA's current water distribution service area. However, the demand forecast included in this UWMP takes into account the entire City limits and its SOI when considering potential growth and demand.

CWA's existing water system consists of different pressure zones, groundwater wells, storage reservoirs, booster pumping stations, and distribution facilities. The current water system is divided into two pressure zones, the Low Zone and the 150 Zone. The Low Zone Area is generally south of 48th Avenue, bounded by Van Buren on the west, the CVSC on the east, and 54th Avenue on the south. The Low Zone provides water service to the majority of the City and as the City continues to grow, the Low Zone will extend further east. The 150 Zone service area is generally north of 48th Avenue and supplies commercial and light industrial users along the Interstate 10 freeway corridor.

CWA has one principal source of water supply: local groundwater pumped from the CWA-owned wells. There are currently seven wells within the City's distribution system and construction of one new well is

under contract for 2026. The total pumping capacity of active wells is approximately 11,400 gallons per minute or 16.5 MGD.

There are three storage reservoirs within the City, the 1.5 MG Dillion Road Reservoir, the 3.6 MG Mecca Reservoir, and the 5.4 MG Well 18 Reservoir. CWA has a total reservoir storage capacity of approximately 10.5 MG; of which, approximately 1.5 MG lies within the 150 Zone.

CWA operates two booster pumping stations, the Mecca Reservoir booster pump station (Well 12 Booster) and the Well 18 Reservoir booster pump station (Well 18 Booster). The Well 12 Booster supplies the Low Zone and takes suction from the Mecca Reservoir, and the Well 18 Booster supplies both the 150 Zone and Low Zone, and takes suction from the Well 18 Reservoir. As of February 2026, a third booster station is under construction.

CWA's distribution system network consists of approximately 120 miles of pipeline, which range from 4-inches to 36-inches in diameter. It is estimated that a majority of pipes in the City's water distribution system network were installed between the year 1940 and year 1990. The older pipes reside in the southerly section of the lower zone, and the newer pipes are in the northerly section. Asbestos cement is the most common pipeline material in the City, according to operations staff; with the remaining pipelines being either polyvinyl chloride (PVC) or ductile iron and lined steel.

5.3.1.2 Wastewater Collection and Treatment

CWA Sanitation Division manages the wastewater collection system for the City, which consists of about 90 miles of sewers that collect local flows generated from the City's residential, commercial, and industrial areas and discharge to the Coachella WWTP, which has a treatment capacity of 4.5 MGD (5,040 AFY). The wastewater system collects flow by gravity from the majority of the area and discharges into the Coachella WWTP. There are two pump stations one located on the west side near the Coachella Valley High School and one located on Polk Street and Avenue 52. Following secondary treatment utilizing activated sludge and oxidation ditch processes, the plant discharges treated effluent to the CVSC.

5.3.1.3 Local Drainage Control

Through its Environmental Compliance Division, CWA also manages stormwater runoff control in the City. The storm drain system consists of gutters, storm drains, and channels. Most runoff travels through the storm drain system and eventually into the CVSC. Runoff from over-irrigation is a violation of the City's NPDES (stormwater) and Landscaping and Water Conservation Ordinances and guidelines, and warnings and citations for violations are enforced by CWA.

5.3.2 Service Area Boundary

The City is not built out, with large undeveloped parcels and agricultural areas that extend mostly east of Highway 86. Agricultural areas are not served by CWA's water system and rely on Coachella Canal water and privately owned and operated wells. As undeveloped and agricultural lands are developed into residential or other land uses, they will be served by CWA and become part of CWA's service area. For the purpose of developing SBx7-7 baselines and targets in 2020, CWA delineated the existing water service area based on the existing distribution system. Figure 5-1 shows the existing boundary.

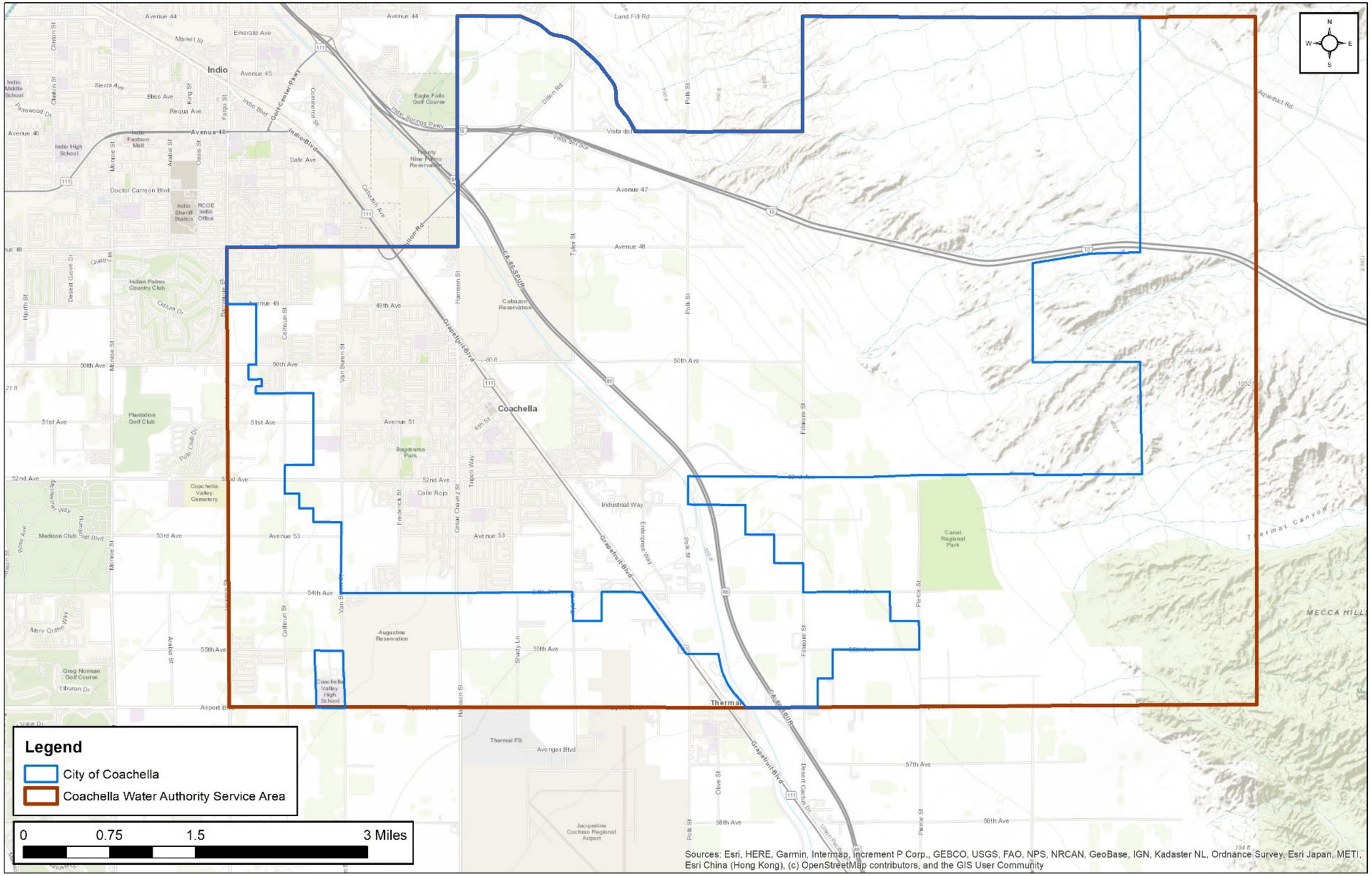


Figure 5-1. CWA Service Area Boundary

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5.3.3 Service Area Climate

CWA's service area lies within the central Coachella Valley, which experiences an arid climate characterized by low humidity, high summer temperatures, and mild dry winters. The City's climate is arid with the majority of precipitation occurring as rainfall in the winter months between November and March. The average rainfall for the Coachella area is approximately 4-inches per year. Winter temperatures are generally between the low 40's and the mid 70's. Summer temperatures are generally between mid- 70's and the low 100's.

Data from the climate station in Indio represents climate in the CWA service area. Monthly average high temperature reaches 106 degrees and monthly average low temperatures are 39 degrees. Table 5-3 shows the average monthly temperature, precipitation and reference Evapotranspiration (ETo) for the area. The data are shown graphically in Figure 5-2.

Table 5-3. Monthly Average Climate Data (Indio)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	72	75	82	87	93	103	106	106	101	90	80	65	88
Average Minimum Temperature (F)	42	45	52	58	63	70	76	75	69	59	49	39	58
Average Total Precipitation (in)	0.5	0.6	0.7	0.3	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.7	3.8
Evapotranspiration, ETo (in)	2.7	3.6	6.0	7.7	9.2	9.8	9.7	9.1	7.2	5.2	3.3	2.3	75.7

Notes:
Data from California Irrigation Management Information System (CIMIS) Station 200, Indio 2. Data from May 2006 through December 2020

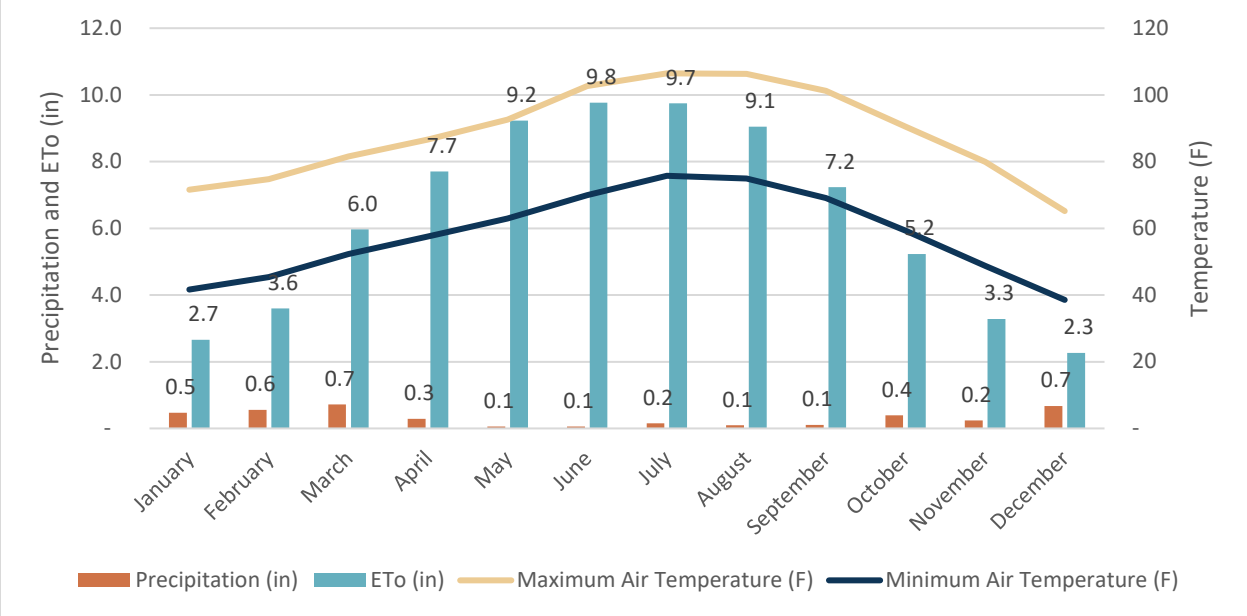


Figure 5-2. Monthly Average Climate Data

A discussion of the potential impacts of climate change on the region is included in Chapter 3 of the RUWMP.

5.3.4 Service Area Population and Demographics

This section describes the population and demographics within CWA's service area. CWA's water service area population is expected to increase substantially in the future. Currently, the water service area lies within the City's boundaries, serving the more densely populated areas to the west and commercial/resort areas to the north.

Current and projected demographics within CWA's service area were developed by SCAG as part of the 2024 Regional Transportation Plan, referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

The growth forecasts in SCAG's Connect SoCal plan included estimates of population, households, and employment through 2050. The 2024 Connect SoCal update projects that the population of Riverside County will increase by approximately 50% through 2050. The 2024 update also notes that the region's population decline between 2019 and 2023 and attributes this decrease to COVID-19 pandemic impacts. Traffic and visitation declined during the pandemic but has recovered to or exceeded pre-pandemic levels in most communities. SCAG notes that the median age is increasing and unpredictable events like the COVID-19 pandemic may cause significant deviations from projected long-term trends.

To estimate service area population, both permanent residents and seasonal residents were estimated. Estimates of the permanent population were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 5-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). Household totals for 2025 were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within the City's service area using Census data. The seasonal population was then estimated by dividing the permanent population totals by the occupancy rate from the Census for each jurisdiction to determine the number of housing units in the City's service area, and multiplying the total number of housing units by the difference between the average vacancy rate for California and the vacancy rate of each jurisdiction in the City's service area. This resulting number was used for the seasonal population estimate.

The City of Coachella's Development Services Department has plans for several proposed development projects, ranging in size from 10 residential units to mixed-use developments with over 7,500 residential units. These units are included in the City's SOI, which is not anticipated for full build out until after 2050.

The current and projected population are shown in Table 5-4.

Table 5-4. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
Permanent	48,891	73,315	97,740	115,922	134,105	152,287
Seasonal	275	302	329	236	144	52
Total	49,166	73,617	98,069	116,159	134,249	152,339

A summary of demographic data for the City is presented in Table 5-5.

Table 5-5. Coachella City Demographic Data

Age Distribution		Race/Ethnicity Distribution		Income and Household Size		Household Income Distribution	
Age	**Percent**	**Race/Ethnicity**	**Percent**	**Parameter**	**Amount**	**Income**	**Percent**
19 years and under	26.6%	White	1.7%	Median household income	$34,224	$24,999 and under	35.5%
20-34 years	24.1%	Black	0.6%	Average household income	$46,759	$25,000-$49,999	30.1%
35-54 years	31.1%	Native American	0.1%	Per capita income	$17,442	$50,000-$74,999	16.3%
55-64 years	9.9%	Asian/Pacific Islander	0.2%	Percent of Population Below Poverty Level	21.8%	$75,000-$99,999	8.8%
Over 65 years	8.3%	Hispanic	97.3%	Average Household Size	2.92	$100,000-$149,999	6.2%
		Other	0.0%			$150,000 and above	3.1%
Source: American Community Survey 2014-2019 (U.S. Census Bureau, 2021)							

5.3.5 Land Uses within Service Area

Existing land uses within the CWA water service area are a mixture of residential, commercial, industrial, institutional, and open space. Land use within CWA's service area is subject to the jurisdiction of the City of Coachella and Riverside County. During its preparation of regional growth projections, SCAG gathered input and coordinated outreach with both jurisdictions.

CWA has coordinated with land use planners within the City to align its RUWMP growth and demand projections with local plans. The following is a brief summary of the nature and status of the City's larger development projects (Coachella 2023).

5.3.5.1 La Entrada

The La Entrada Specific Plan, approximately 2,200 acres on the eastern edge of the City, south of Interstate 10 and northeast of the All American Canal, provides for approximately 7,800 residential units, 135 acres of mixed-use, elementary schools, 343.8 acres of parks, multi- purpose trails and 556.9 acres of open space. The La Entrada development has completed environmental review and is undergoing City development review. Construction is expected to follow the City's approval process. As of February 2026, construction has not commenced.

5.3.5.2 KPC Coachella

The KPC Coachella Specific Plan entails the construction of approximately 9,536 dwelling units of a variety of residential types, 305 acres of mixed-use areas, a college/university overlay, 71 acres of proposed school facilities (3 elementary schools and 1 middle school), 395 acres of parks, greenways, and amenity centers, 68 acres of Agricultural Production areas, and 754 acres of natural open space, including drainage channels and trails located at the northeast portion of the City, North of the I-10 Freeway and East of the All American Canal. A notice of preparation of a draft EIR was published on November 14, 2022.

5.3.5.3 Coachella Vineyard

The Coachella Vineyard Specific Plan provides for 807 units in the southeastern area of the City. The Coachella Vineyard development is currently undeveloped and located east of State Route 86. As of February 2026, construction has not commenced.

5.3.5.4 Brandenburg Butters Specific Plan

The Brandenburg Butters project provides for 71.5 acres of commercial uses and 1,381 dwelling units. The project has been approved by City Council and Planning Commission; however, no units have been constructed as of February 2026. This development is centrally located, east of State Route 86.

5.3.5.5 Eagle Falls

The Eagle Falls Specific Plan resides in both Coachella (60 acres) and Indio (30 acres) on a 90-acre site. The project includes 295 units, of which 202 units will be within the City. The Specific Plan provides for a gated golf course community and is included as a part of the Cabazon Band of Mission Indians Fantasy Springs Master Plan. The golf course was opened in 2007 and rough grading has been completed for the Eagle Falls residential development; however, no units have been constructed to date.

5.3.5.6 Vista Del Agua

The "Vista Del Agua" project is a proposed master-planned community to be developed on 275.38 acres of vacant land located east of Tyler Street, north of Avenue 48, and west of Polk Street, on the south side of the I-10 Freeway and Vista Del Sur. The project will include a variety of residential neighborhoods with up to 1,640 total dwelling units, plus 17.57 acres of General Commercial use, 8.27 acres of Neighborhood Center with Residential Overlay, and a 13.82 park site. The Planning Commission recommended to City Council approval of the Specific Plan and EIR on June 19, 2019. The City Council took final approval actions on the Vista Del Agua project on May 13, 2020.

5.4 Water Use Characterization

This section presents the City's current and projected urban water system demands. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

5.4.1 Non-Potable Versus Potable Water Use

CWA produces all its water supplies from the Coachella Valley Groundwater Basin, Indio Subbasin, which is continuously replenished through a variety of CVWD and DWA water supply projects and programs. The Indio Subbasin is regionally managed by the six participating agencies in this RUWMP.

Currently, CWA does not produce or use recycled water or raw water in its service area; however, the City is considering a recycled water system in the future. While raw water, via the Coachella Canal, is used within the City limits, it is used for agricultural purposes and is not considered part of urban water demands.

Per CVWD Ordinance No. 1428, CWA has opportunity to receive non-potable Colorado River water for additional potable water supply when available. As the water becomes available, CWA may work with CVWD to pursue those opportunities to supplement its water portfolio.

5.4.2 Water Use by Sector

CWA maintains records of total water production and water consumed by its customers. Water use is tracked by customer type, using CWA's billing system. The urban demand sectors that apply to CWA are summarized in Table 5-6.

Table 5-6. Water Use Sectors

Sector	Description
Single-Family Residential	Single-family residential customers constitute the majority of CWA's customers.
Multi-Family Residential	Higher-density residential developments such as apartments and townhomes also contribute a significant portion of urban demand within the CWA service area.
Commercial/Industrial/ Institutional	CWA serves a small commercial zone consisting of retail, office, lodging, restaurant, and service businesses, primarily located along the Interstate 10 corridor within the 150 Pressure Zone. Industrial and Institutional uses are a small portion of overall water use and are combined with commercial uses for the purposes of this report.
Landscape	A portion of CWA's outdoor water demand is served by dedicated landscape meters. These connections may be associated with large single family properties or multi-family, commercial, or institutional/governmental sites, but are considered a separate water use sector because the connection is solely for landscape irrigation.
Other	Other uses include water used for construction, authorized non-billed use (such as firefighting or flushing), and losses from the system.

CWA does not sell water to any other agencies or districts and there are no plans to wholesale municipal water in the future. CWA does not use its potable water supply for any purpose other than domestic water.

5.4.2.1 Distribution System Losses

The difference between water production and metered water deliveries (billed to customers) is defined as non-revenue water. Non-revenue water includes authorized non-billed use (such as firefighting or flushing), and it includes losses from the system. CWA prepares annual water audits using the AWWA Water Audit Software. The reporting and results are summarized in Table 5-7. The completed audits are included in Appendix E of the RUWMP.

Table 5-7. Water Loss Audit Results

Report Period Start Date		Volume of Water Loss (AFY)	Submitted to DWR Water Loss Audit Program
MM	YYYY		
01	2020	122	Yes
01	2021	129	Yes
01	2022	584	Yes
01	2023	103	Yes
01	2024	439	Yes

The real water loss performance standard for CWA's distribution system is 16.8 gallons per connection per day, a 54 percent reduction from the State estimated baseline of 36.4 gallons per connection per day. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. The City's water loss currently averages about 41.5 gallons per connection per day, with the most recent reporting year averaging 34.2 gallons of real water loss per connection per day. Table 5-8 shows the City's progress towards the 2028 Water Loss Standard.

Table 5-8. DWR 4-6R Progress Towards 2028 Water Loss Standard

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss	Number of Units	Volume of Total Real Loss (from AWWA Water Loss Audit)	Real Water Loss Per Unit per Day
CA3310007	Yes	16.8	Gallons per Connection per Day (GPCPD)	9,055	421.19	34.2
Public Water System ID # Reported in Submittal Table 2-1 R	**Did the Water Board Calculate a Water Loss Standard for this Public Water System?**	**Apparent Water Loss**				
		State Water Board Standard		**Most Recent AWWA Water Loss Audit**		
		2028 Apparent Water Loss Standard per Unit per Day	**Units for Apparent Water Loss**	**Number of Connections**	**Volume of Total Apparent Loss (from AWWA Water Loss Audit)**	**Apparent Water Loss Per Unit per Day**
CA3310007	Yes	7.1	Gallons per Connection per Day (GPCPD)	9,055	74.33	7.3

5.4.2.2 Summary of Current Uses

CWA's urban water use for 2020 through 2025 is summarized in Table 5-9.

Table 5-9. DWR 4-1R Urban Water Use 2020-2025 (AFY)

Use Type	Additional Description	Level of Treatment	2020	2021	2022	2023	2024	2025
Single Family		Potable	4,283	4,304	4,231	3,874	3,963	4,284
Multi-Family		Potable	633	748	742	741	712	821
Commercial/ Industrial/ Institutional		Potable	779	852	1,062	925	912	994
Landscape		Potable	1,087	1,136	991	933	1,069	1,163
Other	Construction	Potable	62	124	0	61	163	245
Other	Non-revenue	Potable	372	359	181	655	1,032	275
Total			**7,216**	**7,523**	**7,207**	**7,190**	**7,851**	**7,782**
Note: Non-revenue water is the difference between production and customer billing. It includes losses and authorized, non-billed consumption. 2025 Non-Revenue water was estimated as an average of AWWA report Non-Revenue numbers for years 2020-2024.								

5.4.3 Demand Forecast

CWA is participating in the 2027 update of the Indio Subbasin Alternate Plan being prepared to meet requirements of SGMA. The RUWMP agencies coordinated efforts with demand projections being prepared for the Indio Subbasin Alternative Plan. The demand projection approach included the following steps:

1. The projections were based on the regional growth forecast prepared by SCAG as part of their Regional Transportation Plan, Connect SoCal 2024 (SCAG, 2024). SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area (SCAG 2024).
2. Additional analysis of vacancy rates was performed to estimated baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time uses.
3. Baseline and projected estimates of employment were used to drive future growth in CII demands
4. Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to the CWA service area. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.
5. Water losses were estimated using water loss audits from the last five years (2020 to 2024).
6. Demands were adjusted for the following types of conservation savings:
    - Indoor passive conservation savings from the natural replacement of indoor devices and plumbing fixtures.
    - Outdoor water use reduction at new developments from the implementation of the City's Model Water Efficient Landscaping Ordinance (MWELO) requirements in Section 8.44.220 of City Ordinance Number 1192
    - Outdoor conservation savings from turf replacement due to local rebate programs.
    - Outdoor conservation savings from the installation of smart irrigation controllers due to local rebate programs.
    - Outdoor conservation savings from the implementation of California's non-functional turf ban (AB 1572).

The projected municipal demands for CWA's service area are shown in Table 5-10.

Table 5-10. DWR 4-2R Projected Demands for Water

Use Type	Additional Description	Projected Water Use (AFY)				
		2030	2035	2040	2045	2050
Single Family	Potable	4,180	4,406	4,672	4,972	5,272
Multi-Family	Potable	604	553	507	474	440
Commercial/Industrial/Institutional	Potable	986	1,087	1,147	1,208	1,269
Landscape	Potable	1,093	1,300	1,600	1,900	2,200
Other	Potable	83	83	83	83	83
Losses	Potable	435	512	602	693	783
Subtotal Potable		7,382	7,941	8,610	9,329	10,048
Total		**7,382**	**7,941**	**8,610**	**9,329**	**10,048**

5.4.3.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above). The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use) as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings". The model considers these mandates and the average useful life and replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture was based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014).

Anticipated outdoor water use savings were based primarily on irrigation reduction via the implementation of ordinances and incentives for water reduction. One such ordinance is the California MWELO which is the standard for outdoor water conservation for the state. The resulting water savings from the MWELO are estimated using an ETAF which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the non-functional turf ban, smart irrigation controllers, and turf replacement. AB 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e. ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect commercial, institutional, and homeowner association owned properties. CWA also has rebates in place to encourage water conservation through the installment of smart irrigation controllers and turf replacement. These savings are not considered passive as they are implemented through incentives under conservation programs.

The anticipated passive savings due to these measures are summarized in Table 5-11. These savings have been incorporated into the water demand projections presented in Table 5-10.

Table 5-11. DWR 4-4R Passive Water Savings Projections (AFY)

	2030	2035	2040	2045	2050
Device Replacement	1,040	1,892	2,759	3,578	4,395
MWELO	273	500	734	968	1,202
Non-Functional Turf Ban	235	313	313	313	313
Total Passive Savings	**1,547**	**2,706**	**3,806**	**4,858**	**5,910**

5.4.3.2 Total Gross Water Use

The current and projected future gross water use are summarized in Table 5-12.

Table 5-12. DWR 4-3R Total Gross Water Use (AFY)

	2025	2030	2035	2040	2045	2050
Potable and Raw Water From DWR Table 4-1R and 4-2R	7,782	7,382	7,941	8,610	9,329	10,048
Recycled Water Demand From DWR Table 6-4R	0	0	0	0	0	0
Total Water Use	**7,782**	**7,382**	**7,941**	**8,610**	**9,329**	**10,048**

5.4.4 Water Use for Lower Income Households

The SCAG Regional Housing Needs Assessment (RHNA) Housing Need by Income Category is used to develop projections of lower income housing units in future years. Lower income households are those with less than 80 percent of the area's median household income, adjusted for family size. The City will strive

to meet their new construction goals of the RHNA. The demand for lower income households is included in the water use projections in Table 5-10.

SCAG assigned a RHNA share of 2,032 low to extremely low housing units to the City of Coachella for the 2021- 2029 RHNA period. The estimated water demand increase for these 2,032 lower income housing units is estimated at 691 AFY, which is included in CWA's demand projections.

5.4.5 Climate Change Considerations

Potential impacts of climate change on water use in the region are discussed in Chapter 3 of the RUWMP. Increased temperatures in the Coachella Valley are expected to increase water demands for crop and landscape irrigation, municipal water use, and evaporative losses from canals and open reservoirs. Increased summer temperatures could draw increased monsoonal flow resulting in more frequent summer thunderstorms. As part of this RUWMP and the associated Alternative Plan Updates, the water suppliers have adopted a consensus approach to modeling the potentials impacts of climate change on local runoff, groundwater recharge, and SWP and Colorado River deliveries. A combination of state- and local-led DMMs may reduce demand for irrigation via landscape ordinances while public outreach and education can lead to reductions in water demands through conservation measures.

5.5 SB X7-7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that CWA achieved its 2020 water use target in 2020.

5.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. CWA selected to use Method 1, which was calculated as 80 percent of the urban retail water supplier's baseline per capita daily water use using a 10-year average starting no earlier than 1995. Based on the selected 10-year baseline of 208 GPCD. Using that criteria, CWA's selected 2020 target was 200 GPCD.

5.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, CWA's service area population and gross water use were compared to the SBx7-7 target. The gross water used was determined from the City's annual groundwater production and storage records. Meter adjustments, exported water, distribution system storage, recycled water, and process water were not applicable to CWA's distribution system. This volume was excluded from the SBx7-7 compliance calculation. CWA's water use was calculated as 141 GPCD for year 2020.

5.5.3 Supplier Met 2020 Target in 2020

CWA met their 2020 target as reflected in Table 5-13 below, which includes their 2020 target and 2020 Actual GPCD. CWA was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

Table 5-13. SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	200	141	Yes

5.6 Water Supply Characterization

This section describes and quantifies the sources of water available to CWA.

5.6.1 Water Supply Analysis Overview

CWA produces all its water supplies from the Coachella Valley Groundwater Basin, Indio Subbasin, which is continuously replenished by DWA and CVWD with imported water. The Indio Subbasin serves as an expansive conjunctive use resource that is capable of ensuring a sufficient and sustainable water supply to serve existing uses and projected growth during normal, single-dry and multiple-dry years over an extended planning horizon. Not only does the Indio Subbasin contain vast reserves of local groundwater (approximately 30 million AF at 1,000-foot depth), it has substantial available storage space that has been utilized and will continue to be utilized to store supplemental supplies that become available during normal and above-normal years. Those surplus supplies are recharged to the Indio Subbasin for later use during dry periods.

5.6.2 Supply Characterization

This discussion includes the types of water supply considered by DWR. As shown in Table 5-14, CWA serves 100 percent of customer demands with groundwater.

Table 5-14. Urban Water Supply 2020-2024 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024
Groundwater	Indio Subbasin	7,216	7,523	7,207	7,190	7,851
Total		**7,216**	**7,523**	**7,207**	**7,190**	**7,851**

5.6.2.1 Purchased or Imported Water

CWA does not use purchased or imported water. As described in Chapter 3 of the RUWMP, imported water is used in the region for groundwater replenishment.

5.6.2.2 Groundwater

Groundwater is the principal source of municipal water supply in the Coachella Valley. CWA produces water from the Indio Subbasin, which is a common groundwater source shared by CVWD, CWA, DWA, Indio, MDMWC, and numerous private groundwater producers. Discussion of on-going efforts to manage the Indio Subbasin are presented in Chapter 3 of the RUWMP.

CWA extracts groundwater comprising natural recharge, artificial recharge with imported water, non-consumptive return, and groundwater from storage. Net natural replenishment for the Indio Subbasin averages 52,500 AFY. Groundwater from storage is continued groundwater extraction, typically in dry years, required to meet demands in addition to natural and imported supplies. Non-consumptive return flows are estimated to be 29 to 35 percent of groundwater applied on landscapes but not consumed, which therefore percolates to groundwater.

CWA's total groundwater production for the past five years is presented in Table 5-15. In response to growth, CWA will gradually increase groundwater production to meet demands. CWA intends to continue meeting its urban water demands with groundwater.

Table 5-15. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Indio Subbasin	7,523	7,207	7,190	7,851	7,782
Total		**7,523**	**7,207**	**7,190**	**7,851**	**7,782**

Groundwater Quality

CWA's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by CWA meets all U.S. EPA and SWRCB guidelines (CWA 2025a). Groundwater quality is high and currently only receives chlorine disinfection.

The federal MCLs for PFAS, specifically PFOA and FPOS, of 4.0 parts per trillion (ppt) were set in April 2024. CWA is actively monitoring and testing its water system for PFAS chemicals.

In October 2024, the SWRCB approved the country's first drinking water standard for hexavalent chromium (chromium-6) at 10 µg/L. CWA has been working hard to find the most economical way to treat five of its wells that are impacted by chromium-6 ranging from 13 to 21 µg/L (CWA 2025b). CWA is working with SWRCB to address the exceedances and comply with the MCL within the compliance timeline.

There are two major developments within CWA's SOI that are scheduled to be built on the east side of the San Andreas Fault, which lies outside of the Indio Subbasin. These developments would lie within the Fargo Canyon Subarea of the Desert Hot Springs Subbasin. Within this area, groundwater is generally of poor quality (TDS >1,000 mg/L) and the native yield is limited. Groundwater supply for developments within the Fargo Canyon Subarea of the Desert Hot Springs Subbasin will most likely have come from new wells added on the westerly side of the San Andreas Fault due to the groundwater quality issues on the east side. While wellhead or centralized treatment for these contaminants is possible, it may or may not prove to be economical for CWA. Further analysis of this would be required to make a determination on where or how to proceed.

5.6.2.3 Surface Water

CWA does not currently use or intend to use any local surface water as part of its urban water supply. Local runoff percolates into the groundwater basin through tributary and Whitewater River streambeds.

5.6.2.4 Stormwater

CWA does not currently use or intend to use local stormwater runoff as part of its water supply. However, that could change in the future and will be further evaluated at that time.

5.6.2.5 Wastewater and Recycled Water

The City of Coachella provides both water and wastewater services within its jurisdiction. The City of Coachella manages the Coachella Sanitary District, which operates the Coachella WRF, a secondary treatment facility with a permitted capacity of 4.5 MGD. The facility was upgraded to its current capacity in 2010. Average daily influent flows are approximately 3.0 MGD, with average daily effluent flows of approximately 2.7 MGD. The Coachella WRF provides full secondary treatment utilizing oxidation ditches for biological treatment and denitrification. Waste activated sludge is dewatered onsite using drying beds and subsequently transported offsite for disposal or beneficial reuse in accordance with applicable regulations.

CWA currently does not have recycled water use within its service area. CWA continues to evaluate opportunities to expand water reuse and recycled water infrastructure as part of its long-term water management planning efforts. Potential uses of recycled water could be implemented, including non-potable water systems for larger developments. Requiring new developments to include a "non-potable" water distribution system could help offset much of the costs associated with delivering recycled water system-wide.

Information about wastewater collected and treated is presented in Table 5-16 and Table 5-17.

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Table 5-16. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**	**WWTP Operation Contracted to a Third Party**
Coachella Sanitary District	Metered	3,458	Coachella Sanitary District	Avenue 54 Wastewater Treatment Plant	Yes	No
Total		**3,458**				

Table 5-17. DWR 6-3R Wastewater Treatment and Discharge within Service Area in 2025

Wastewater Treatment Plant Name	**Discharge Location Name or Identifier**	**Discharge Location Description**	**Wastewater Discharge ID Number**	**Method of Disposal**	**Plant Treats Wastewater Generated Outside the Service Area**	**Treatment Level**	**2025 Volumes (AFY)**				
							Wastewater Treated	**Discharged Treated Wastewater**	**Recycled Within Service Area**	**Recycled Outside of Service Area**	**Instream Flow Permit Requirement**
Coachella WWTP	Coachella Valley Stormwater Channel	Stormwater channel	CA0104493 – 001 7A330104012	River or creek outfall	No	Secondary	3,458	3,458	0	0	0
Total							**3,458**	**3,458**	**0**	**0**	**0**

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5.6.2.6 Desalinated Water Opportunities

CWA does not have direct access to ocean water or a significant quantity of brackish groundwater. CWA does not anticipate the future use of desalinated water within its service area, as the backbone facilities and infrastructure needed for desalination are not economically feasible.

5.6.2.7 Water Exchanges and Transfers

Water transfers involve the temporary or permanent sale or lease, or exchange of water rights or contractual water supplies between willing parties. Such transfers can occur through a variety of mechanisms, including source substitution, groundwater exchange programs, or participation in regional supplemental supply acquisitions.

While CWA does not independently hold or administer imported water transfer or exchange agreements, CWA has evaluated opportunities to exchange non-potable groundwater supplies for alternative surface water sources, including deliveries from the Coachella Canal. In portions of the East Valley, groundwater contains elevated levels of TDS and fluoride that limit its suitability for potable use but may be appropriate for irrigation or other non-potable applications. Under a source substitution or exchange framework, non-potable groundwater could potentially offset irrigation demands, while higher-quality surface water supplies could be reserved or treated for potable use. CWA and CVWD have previously entered into agreements to coordinate long-term water supply planning and ensure sufficient and reliable water supplies to serve future development within CWA and its SOI. These agreements identify mechanisms by which new water demands may be mitigated, including source substitution, supplemental supply acquisition, or participation in regional programs to fund or secure additional long-term water supplies. CWA continues to coordinate with CVWD on water supply planning and long-term sustainability objectives.

5.6.2.8 Future Water Projects

CWA understands the need to develop additional sources of supply to meet demands associated with projected growth and continues to work with CVWD and other regional partners on potential projects to increase water supply. CWA will continue to evaluate the use of Canal water as a source substitution for drinking water supplies obtained from groundwater.

Per CVWD Ordinance No. 1428, CWA has the opportunity to receive Canal water for additional potable water supply when available. As the water becomes available, CWA may pursue those opportunities to supplement its water portfolio. As part of its planning process, CWA will continue to design water system improvements to enhance conservation, identify additional water supplies and potential source substitutions, and enhance local groundwater recharge.

5.6.2.9 Summary of Existing and Planned Sources of Water

CWA currently receives 100 percent of its water supply from groundwater, and does not currently participate in water recycling, water desalination, water exchanges or transfers, or purchase of imported water supplies. CWA's water supplies for 2025 are shown in Table 5-18 and CWA's anticipated future supplies are shown in Table 5-19.

Table 5-18. DWR 6-8R Actual Water Supplies

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume (AFY)	Water Quality
Groundwater	Indio Subbasin	7,782	Drinking Water
Total		**7,782**	

Table 5-19. DWR 6-9 R Projected Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2030 Reasonably Available Volume	2035 Reasonably Available Volume	2040 Reasonably Available Volume	2045 Reasonably Available Volume	2050 Reasonably Available Volume
Groundwater	Indio Subbasin	7,382	7,941	8,610	9,329	10,048
Total		**7,382**	**7,941**	**8,610**	**9,329**	**10,048**

5.6.2.10 Special Conditions

Although groundwater is a relatively resilient water supply with respect to climate change, potential effects of a hotter and drier climate could increase water demand within the Coachella Valley. The potential impacts of climate change on regional water supplies are discussed in Chapter 3 of the RUWMP.

5.6.3 Energy Use

CWA has compiled data to document the energy used for water management operations. CWA used the Total Utility Approach to estimate the energy intensity of its water management operations. The data are summarized in Table 5-20.

Table 5-20. DWR O-1B Energy Intensity Reporting

Enter Start Date for Reporting Period	**1/1/25**	**Urban Water Supplier Operational Control**		
End Date	12/31/25			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AFY	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		7,216	0	7,216
Energy Consumed (kWh)		3,772,520	0	3,772,520
Energy Intensity (kWh/volume)		522.8	0.0	522.8
Quantity of Self-Generated Renewable Energy				
0	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Combination of Estimates and Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption records maintained by the agency.				
Narrative				
The agency uses energy for groundwater production from wells, pumping at booster stations from lower pressure zones to higher pressure zones, and treatment processes.				

5.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability that compares total projected water use with expected water supply over the next 25 years in five-year increments, including a single dry year and multiple dry years. Reliability is a measure of a water system's expected success in managing water shortages. This chapter presents the reliability assessment for CWA's service area.

5.7.1 Reliability Overview

CWA's only direct source of urban potable water supply is local groundwater. Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent

drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions. Potential constraints on these supplies that could affect reliability are discussed in Chapter 3 of this RUWMP.

The "normal year" represents the average water supply conditions and availability to CWA. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to CWA. Though CWA's vast groundwater in storage is not constrained in dry years, this RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. CWA's water use data from the last 20 years was evaluated to understand demand response among its customer base. For CWA, the single dry year demand represents 110 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to CWA for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record, it represents a more accurate demand response to drought conditions due to conservation programs implemented in recent years by CWA. For CWA, the multiple dry year demand increases by two percent year-over-year from 103 to 111 percent of normal conditions.

Table 5-21 summarizes the water years used as the basis for urban water supply reliability assessment and the percent of average supply available for each base year.

Table 5-21. DWR 7-1R Basis of Water Year Data

Year Type	Available Supply if Year Type Repeats	
	Base Year	Percent of Average Supply
Average Year	2015-2024	100%
Single-Dry Year	2021	110%
Consecutive Dry Years 1st Year	2020	103%
Consecutive Dry Years 2nd Year	2021	105%
Consecutive Dry Years 3rd Year	2022	107%
Consecutive Dry Years 4th Year	2023	109%
Consecutive Dry Years 5th Year	2024	111%

5.7.2 Water Service Reliability Assessment

The reliability of the groundwater supply is dependent on reliable sources to replenish water extracted from the groundwater basin. To ensure a safe and reliable supply, regional water suppliers collaborate to manage groundwater via the Indio Subbasin Alternative Plan and Mission Creek Subbasin Alternative Plan. CVWD and DWA replenish the Indio Subbasin with Colorado River and SWP exchange water. Efforts in regional management of the groundwater basin have helped address long-term overdraft. Therefore, water supply reliability is expected to be good and fully reliable.

The Indio Subbasin groundwater in storage will be used in dry years to support potential differences between demands and supply. The groundwater basin has a capacity of approximately 29.8 MAF. It is capable of meeting the water demands of CWA for extended periods during normal, single-dry and multiple-dry year conditions. The following tables provide CWA's projected water supplies and demand in a normal year, single dry year, and multiple dry years.

5.7.2.1 Normal Year

The projected supply and demand during a normal year are shown in Table 5-22. This analysis does not include WSCP use reduction in a normal year. The supply and demand comparison for the normal year results in no shortages.

Table 5-22. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	7,382	7,941	8,610	9,329	10,385
Demand Totals (AFY) From DWR Table 4-3R	7,382	7,941	8,610	9,329	10,048
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

5.7.2.2 Single Dry Year

The single dry year represents a "worst-case" scenario for demand response, jumping to 110 percent of normal conditions in a single year. Due to the reliability of the region's groundwater basin, water supply availability during a single-dry year scenario was assumed to be similar to the average year scenario. Supplies and demands for the single dry year conditions for each five-year increment are summarized in Table 5-23. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable as groundwater in storage in the Indio Subbasin is available to serve increased demand. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 5-23. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	8,155	8,772	9,512	10,305	11,472
Use Totals (AFY)	8,155	8,772	9,512	10,305	11,099
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

5.7.2.3 Multiple Dry Years

Reliability during a multiple-dry year scenario was assumed to be similar to the average year scenario for reasons discussed previously. Supplies and demands for the multiple dry year conditions for each five-year increment are summarized in Table 5-24. The multiple dry year urban water supply reliability is 100 percent, as groundwater in storage in Indio Basin will be used to supplement increased demand. In five consecutive dry year conditions, there are no shortages. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. Demand is expected to be offset, however, in the second through fifth years of a consecutive dry year period due to efficiencies realized from the implementation of CWA's WSCP. This reliability forecast conservatively assumes that the WSCP will reduce water use by two percent in the second through fifth years of a multiple year drought.

Table 5-24. DWR 7-4R Multiple Dry Years Supply and Demand Comparison

	2030	2035	2040	2045	2050
First Year					
Supply Totals (AFY)	7,603	8,179	8,869	9,609	10,349
Use Totals (AFY)	7,603	8,179	8,869	9,609	10,349
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply Totals (AFY)	7,751	8,338	9,041	9,795	10,550
Use Totals (AFY)	7,751	8,338	9,041	9,795	10,550
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	146	157	171	185	199
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	7,899	8,497	9,213	9,982	10,751
Use Totals (AFY)	7,899	8,497	9,213	9,982	10,751
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	149	160	174	188	203
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	8,046	8,655	9,385	10,169	10,952
Use Totals (AFY)	8,046	8,655	9,385	10,169	10,952
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	152	163	177	192	207
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fifth Year					
Supply Totals (AFY)	8,194	8,814	9,558	10,355	11,153
Use Totals (AFY)	8,194	8,814	9,558	10,355	11,153
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	155	166	180	195	210
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

The region's water suppliers have many programs to maximize the water resources available to CWA, including but not limited to groundwater replenishment with imported water, direct use and recharge of recycled water, conversion of groundwater uses to Canal water, and comprehensive water conservation practices such as tiered water rates, landscaping ordinances, outreach and education. The groundwater replenishment programs establish a comprehensive and managed effort to reduce and eliminate overdraft of local groundwater resources. These programs allow the agencies to maintain the groundwater basin as the primary water supply and to recharge the groundwater basin as other supplies are available and needed

to meet existing and projected demands within its overall service area, including CWA and the City's sphere of influence.

5.7.3 Drought Risk Assessment

The Drought Risk Assessment (DRA) is intended to evaluate current water supply availability by simulating demand and supply for the next five years under multiple dry year conditions.

Demands are expected to increase from current 2025 demands based on the assumptions during multi-dry year periods. For CWA, the multiple dry year demand increases by two percent year-over-year from 103 to 111 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands from existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify a potential shortage are described in CWA's WSCP (see Appendix C). The DRA assumes the WSCP would be implemented in the second year of a five-year drought. Based on the reliability analysis presented above, the supply of groundwater is fully reliable in a five-year drought scenario, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 5-25. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 5-25. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	8,015
	Total Supplies (AFY)	8,015
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/(Shortfall)	**0**
	Resulting Percent Use Reduction from WSCP Action	**0%**
2027	Gross Water Use (AFY)	8,171
	Total Supplies (AFY)	8,171
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	151
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**2%**
2028	Gross Water Use (AFY)	8,327
	Total Supplies (AFY)	8,327
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	154
	Revised (Surplus/Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**2%**

2029	Gross Water Use (AFY)	8,482
	Total Supplies (AFY)	8,482
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	157
	Revised (Surplus/Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**2%**
2030	Gross Water Use (AFY)	8,638
	Total Supplies (AFY)	8,638
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	160
	Revised (Surplus/Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**2%**

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

5.8 Water Shortage Contingency Plan

CWA has developed a WSCP that outlines it's strategy for assessing and responding to potential water shortages. Building on the region's overall high water supply reliability, the WSCP prepares for risks such as prolonged drought, infrastructure failure, regulatory restrictions, contamination, and other emergencies. It establishes procedures for annual water supply and demand assessments, coordination among regional water agencies, and use of six standardized shortage levels that range from minimal conservation requirements to severe, mandatory restrictions when more than 50% supply reduction occurs.

To manage shortages, the WSCP details a suite of supply augmentation methods, demand-reduction actions, operational adjustments, communication protocols, and enforcement mechanisms. Actions escalate by shortage level and may include outdoor irrigation limits, reduced water budgets, expanded public outreach, drought surcharges, mandatory rationing, and prohibitions on potable outdoor use. The WSCP also describes financial implications, monitoring and reporting requirements, seismic risk considerations, and emergency response coordination with regional partners. It sets forth legal authorities supporting plan implementation and provides the procedures for adoption, future amendments, and public engagement.

The CWA WSCP is included in Appendix C of this RUWMP.

5.9 Demand Management Measures

The goal of the Demand Management Measures (DMM) section is to provide a comprehensive description of the existing and planned water conservation programs that CWA implements to increase water use efficiency. CWA is committed to conservation as a means to provide a sustainable supply of water to its service area, and plans to continue its conservation program during the next five years. CWA's DMM implementation efforts are described in the following sections.

5.9.1 Existing Demand Management Measures

CWA recognizes water use efficiency as an integral component of its current and future water strategy for the service area. DMMs refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a reliable reduction in water demand. CWA has aggressively pursued conservation in an effort to reduce demand. The following DMMs include technologies and methodologies that have been sufficiently documented in multiple demonstration projects that result in more efficient water use and conservation.

5.9.1.1 Water Waste Prevention Ordinances

CWA has a prohibition for wasting water in Municipal Code Section 13.03.044 which states it is unlawful for any person to willfully or neglectfully water waste in any manner whatsoever. In addition, CWA has adopted Coachella Valley Association of Governments (CVAG's) Landscape Ordinance which has specific penalties for water waste.

The measurement of success for this program is a reduction in water waste violations in the future. Additionally, CWA has mandatory prohibitions on water wasting that they enforce during a water shortage. These prohibitions include voluntary and mandatory provisions, audits, and fines than can be imposed.

5.9.1.2 Metering

One hundred percent of CWA's urban water customers are metered. CWA bills its customers according to meter consumption. In addition, CWA encourages the installation of dedicated landscape meters, which allows CWA to recommend the appropriate irrigation schedules through future landscape programs.

Meter calibration and periodic replacement help verify that customers are paying for all of the water they consume, and therefore encourages conservation. Also, meter inaccuracies may help identify and quantify where water loss occurs. CWA replaced all existing meters prior to 2000 to upgrade the older meters to obtain an accurate measure of water usage. In 2015, the City completed the process of metering its past unmetered accounts including parks and other accounts, which has further enhanced the effectiveness of measuring consumption.

5.9.1.3 Conservation Pricing

CWA has a tiered rate structure for water service within its service area. CWA's water rates include a variable commodity charge (monthly charge based on the amount of water used or consumed by the customer in hundreds of cubic feet) and a fixed metered account charge (basic monthly rate by meter size). The rates have been designed to recover the full cost of water service in the commodity charge, while discouraging wasteful water use, and will continue to be implemented into the future. Tiered rates are designed to incentivize customers to be proactive in reducing water use.

5.9.1.4 Public Education and Outreach

CWA recognizes the continued need for a public information program to maintain and increase the public's awareness of water and the need to use it wisely. The City promotes water conservation and other resources through its website as a primary communication tool.

CWA has a portion of its website (**https://www.conservecoachella.com/conserve-coachella/**) devoted to water conservation and education. The website provides information on CWA's turf removal, smart irrigation controller, and toilet rebate programs.

The City distributes public information through bill inserts, brochures, and community events. The City also has the opportunity to provide public information on conservation measures through television advertising on public access channel in conjunction with the City Council meeting broadcasts. The City will continue to work on providing public information and materials to remind the public about water and other resource issues and will track commentary regarding the information provided. There is no reliable method to quantify the savings of this management measure; however, the City will monitor the number of public announcements, television advertisements, brochures and bill inserts distributed throughout the service

area. An increase in distribution of materials will indicate heightened public water conservation awareness and may correlate with decrease water demand.

The City supports school education programs provided to the schools within the City. The education programs include water conservation, water quality and pollution prevention. The program has provided educational programs predominately for elementary age children throughout the service area. School education helps future water users realize that water in the State is a precious commodity that cannot be taken for granted. The program educates school children about where water comes from, how it is used, that it is a precious resource, and ways to conserve water. The children are also taught about the importance of recycled water, where it comes from, and how it is used. This includes field trips to the Coachella Canal and the Coachella WRF.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (https://cvwatercounts.com/) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact. Part of the regional program also includes a "Water Counts Academy," which affords local residents an opportunity to learn more about water in our community.

5.9.1.5 Programs to Assess and Manage Distribution System Real Losses

CWA generally performs system water audits on an as-needed basis. Although leak and/or line break repairs are performed expediently (within 24 hours) by the City, no records of these activities, including system audits or leak detection program data are available.

CWA does monitor the difference between the water pumped into the distribution system compared to the amount billed annually, which is considered "non-revenue" water. Non-revenue water may be attributed to "apparent losses" or "real losses." Apparent losses are paper losses that occur in utility operations due to customer meter inaccuracies, billing system data errors and unauthorized consumption. In other words, this is water that is consumed but is not properly measured, accounted or paid for. Real losses are the physical losses of water from the distribution system, including leakage. These losses inflate production costs and stress water resources since they represent water that is extracted and treated, yet never reaches beneficial use. Real losses also include other events causing water to be withdrawn from the system and not measured, such as hydrant testing and flushing, street cleaning, new construction line draining and/or filling and draining and flushing, and firefighting.

5.9.1.6 Water Conservation Program Coordination and Staffing Support

The City's Utilities Director serves as its water conservation coordinator along with the staff Environmental Special Program Manager. They work closely with agencies in the region, particularly through the CVRWMG and CV Water Counts, to implement and provide successful execution of water conservation programs in the City. The City continues to investigate Federal, State, and local funding to develop new programs throughout its service area.

5.9.1.7 Other Demand Management Measures

The City has developed several other demand management measures to support consumption reduction and promote efficient water use. They are described in the following subsections.

Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

The City conducts water audits at the request of water customers. The City has identified its largest water users and work with these users in hopes of developing a site-specific water conservation program. The

City believes that identifying and reducing water uses of their largest water consumers provides the largest benefit to the City.

Residential Plumbing Retrofit

The City has adopted the latest version of the Uniform Building Code (UBC), which requires the installation of water efficient fixtures. The City, through the Redevelopment Agency, provides assistance for low-income families to retrofit older houses with newer water efficient fixtures. Measuring reductions in water usage from implementation of the UBC is not achievable.

Large Landscape Conservation Programs and Incentives

Typically, the large landscape areas such as golf courses and large common areas are required to provide landscape irrigation with non-potable water such as Canal water, non-potable groundwater, or recycled water and will not be allowed to connect to the City's domestic water system, unless no other water source is available. In addition to negotiating agreements for additional Canal water to serve large landscapes, the City negotiated additional rights to Canal water supplies that may be treated to drinking water standards with the implementation of a new treatment facility. The City does not currently operate a tertiary-treatment plant and does not have infrastructure in place to deliver recycled water.

In 2000, the City adopted a landscape ordinance for single family and multi-family residences and large landscape areas. The new ordinance encourages limited use of turf areas and reduces landscape irrigation consumption by mandating high efficiency irrigation systems and low water use landscaping. The City conducts plan checking for compliance with the landscape ordinance prior to the construction of new and/or rehabilitated landscape sites.

Additionally, in response to the Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird), which required cities and counties to adopt water conservation ordinances by January 1, 2010, CWA worked with CVAG, Coachella Valley cities, Riverside County, other water agencies, and the Building Industry Association to develop a Regional Landscape Water Conservation Ordinance. The Regional Landscape Ordinance not only meets State requirements, but also is tailored specifically to the unique climate and water conservation needs of the Coachella Valley, including the City. The City has adopted the model landscape ordinance by CVAG.

In addition, the City Utilities Department offers a turf removal rebate program for residents who want to reduce outdoor water use by converting their front lawn to desert-friendly landscaping. The program aims to provide examples of water wise planting alternatives to turf in parkways and front yards. Residents who chose to replace their grass with beautiful, desert-friendly landscaping can get a rebate of $3 per square foot up to $3,000 rebate.

Furthermore, the City instituted a Smart Controller Rebate Program. The program is designed to financially assist water users in reducing landscape irrigation water consumption by purchasing an advanced irrigation controller capable of synchronizing their landscape irrigation schedules with seasonal variations in local reference evapotranspiration (ETo) rates. These "smart" irrigation clocks reprogram themselves according to periodic variations in ETo after the initial calibrating program has been professionally installed. The City will cover the entire cost and installation of one controller per customer.

Conservation Programs for Commercial, Industrial, and Institutional Accounts

The amount of water used in commercial, industrial and institutional (CII) within the City is a small percentage of the overall water usage. CII user demand makes up approximately 13 percent of the City's total water deliveries. The City does, however, incorporate into its planning review process, a review of water uses for a specific development and how it has incorporated water conservation measures. This is an ongoing procedure as part of the development approval process. A majority of existing passive conservation by CII customers is due to current plumbing codes.

Residential ULFT Replacement Programs

The City has adopted the Uniform Building Code that requires ultra-low flush toilets (ULFT) (1.2 gallons per flush) be used in all new construction. Most of the population is projected into the future with new developments. These developments will be required to install ULFT toilets under current Building Code provisions. For existing houses, the City is offering its single-family residence and multi- family residence the opportunity to receive a rebate of up to $150 for exchanging a non-efficient toilet that uses 3.5 gallons per flush (GPF) for an ULFT that uses less than 1.28 GPF and is a qualifying WaterSense model. Currently toilets using 3.5 GPF or more account for roughly 30% of a home's indoor water use. The use of these WaterSense ULFT will not only conserve water but they also have the potential to reduce customer water and electric bill. To date, the City has successfully replaced several non-efficient toilets with the program. The City plans to continue the program into the foreseeable future.

5.9.2 Implementation of DMMs

The City is committed to conservation as a means to provide a sustainable supply of water to its service area, and plans to continue its conservation program during the next five years. The conservation program was initiated in 2012. The details of implementation over the past five years are discussed in the previous sections for the applicable DMMs.

CWA has seen reduced water consumption and notification of water waste. Furthermore, CWA continued implementing the turf reduction program, smart irrigation controllers, ultra-low flow toilets and retrofit kits. A total of $150,000 has been spent in the last five years and reduced water consumption by an estimated 3.4 MG. The following represents the City's best understanding of the nature and extent of these programs over the past five years.

Table 5-26. DMM Implementation Summary

Program	Completed Since Program Inception	Completed Since 2010
Residential Plumbing Retrofit	300	300
Turf Removal Rebate Program	135	160
Smart Controller Rebate Program	15	31
Residential ULFT Replacement Program	42	51

The City plans to continue implementing the programs described above and will continue to implement water conservation practices and enforce requirements of City ordinances to maintain lower than historic per capita water use.

As funding becomes available, CWA will pursue additional conservation activities such as energy efficient appliances, customer portal, mobile application, and advance metering infrastructure.

5.10 Plan Adoption, Submittal, and Implementation

This section includes a discussion of CWA's process for adopting, submitting, and implementing the RUWMP and CWA's WSCP.

5.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. CWA issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and CWA's WSCP. CWA provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 5-27, and the notification letters are included in Appendix A of the RUWMP. CWA provided an additional notice to the cities and counties with the time and date of the public hearing.

Table 5-27. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
Coachella	Yes	Yes
County		
Riverside	Yes	Yes

CWA provided notice to the public through its website and published announcements of the public hearing in the newspaper on two occasions before the hearing. Copies of the proof of publication are included in Appendix A.

5.10.2 Public Hearing and Adoption

The City held a public hearing on June 10, 2026, located at Coachella Water Authority, 53462 Enterprise Way, Coachella, CA 92236 to hear public comment and consider adopting this RUWMP and CWA's WSCP. As part of the public hearing, CWA provided information on CWA's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and CWA's WSCP took place before the adoption of the Plans, which allowed the opportunity to modify the RUWMP and CWA's WSCP in response to public input before adoption. After the hearing, the Plans were adopted as prepared or as modified during the hearing.

The City's adoption resolution for the RUWMP and CWA's WSCP is included in Appendix F.

5.10.3 Plan Submittal

CWA will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to the City of Coachella and the County of Riverside, which CWA supplies water to, within 30 days of adoption.

CWA is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

5.10.4 Public Availability

The RUWMP and CWA's WSCP will be available on the CWA website for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at CWA's office (see address below) during regular business hours.

Coachella Water Authority
53462 Enterprise Way
Coachella, CA 92236

The final documents will also be posted on CVWD's website at www.cvwd.org/543/Urban-Water-Management-Planning.

5.10.5 Amending an Adopted UWMP or WSCP

If the City amends the adopted RUWMP or CWA's WSCP, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended RUWMP.

Chapter 6 Desert Water Agency

6.1 Introduction

This chapter describes information specific to Desert Water Agency (DWA) for compliance with the UWMP Act. As an urban water supplier, DWA is required to prepare a UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWMP.

6.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 6.1 - Introduction.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 6.2 - Plan Preparation.** Provides information on DWA's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 6.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and DWA's organizational structure and history.
- **Section 6.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within DWA's service area.
- **Section 6.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes DWA's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 6.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to DWA. Includes discussion of potential recycled water uses and supply availability.
- **Section 6.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of DWA's water supply and projects the reliability for at least the next 20 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 6.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides DWA's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 6.9 - Demand Management Measures.** Describes DWA's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 6.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by DWA to adopt and submit the UWMP and to make it publicly available. Includes a discussion of DWA's plan to implement the UWMP.
- **Appendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

6.1.2 UWMPs in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 2 of the RUWMP.

6.1.3 UWMPs and Grant or Loan Eligibility

DWA has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans.

6.1.4 Demonstration of Consistency with the Delta Plan

The participating agencies' approach to demonstrating reduced reliance on the Delta is discussed in Chapter 3 of the RUWMP. The analysis of reduced Delta reliance is provided in Appendix B.

6.2 Plan Preparation

This section provides information on DWA's process for developing the RUWMP, including efforts in coordination and outreach.

6.2.1 Plan Preparation

In accordance with the CWC, urban water suppliers must develop a UWMP every five years. An "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. DWA supplies approximately 34,400 AFY to 24,100 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

6.2.2 Basis for Preparing a Plan

DWA is a retail public water supplier that meets the definition of an urban water supplier with over 24,000 municipal water service connections in 2025. DWA maintains a single Public Water System (PWS) with information shown in Table 6-1.

Table 6-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AFY)
3310005	Desert Water Agency	24,068	34,362

6.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participation in an area wide, regional, watershed, or basin-wide urban water management plan. DWA is participating in the Coachella Valley RUWMP.

6.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

6.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. DWA is a retail agency and does not currently sell wholesale water. Table 6-2 shows DWA's supplier identification information used throughout this report.

Table 6-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of Measure Used in UWMP	AF

6.2.6 Coordination and Outreach

DWA does not receive water from a wholesale supplier and meets all its water demands through its own supplies. DWA does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

6.3 Service Area Description

This section provides information on DWA's service area, population, and demographics.

6.3.1 General Description

DWA was formed in 1961 to ensure an adequate water supply for the northwestern portion of the Upper Coachella Valley. In 1962, DWA entered into a water supply contract with the State of California through DWR. In 1968, DWA purchased the Palm Springs Water Company and Cathedral City Water Company systems to provide domestic and municipal water service (hereafter municipal water service) to Palm Springs and vicinity.

DWA is responsible for water supply management within its jurisdictional boundary, which encompasses 325 square miles including the City of Palm Springs, the southwestern portion of the City of Cathedral City, the City of Desert Hot Springs, essentially all of Mission Springs Water District (MSWD), and some unincorporated areas within Riverside County. Within this area, DWA serves as the GSA for its portions of Indio and Mission Creek Subbasins and provides imported SWP water for groundwater replenishment.

DWA's water service area is generally bounded on the north (from west to east) by Interstate 10 to Highway 111, to Chino Canyon and the Whitewater River, on the east by the Whitewater River and CVWD, on the south by the rugged Santa Rosa Mountains, and on the west by the rugged San Jacinto Mountains. DWA currently has about 24,100 domestic water connections that serve approximately 59,800 people (including seasonal population).

6.3.1.1 Domestic Water Delivery

DWA provides water service through two separate systems (potable and recycled) within its service area, which includes the City of Palm Springs, the southwestern portion of the City of Cathedral City, and some unincorporated areas within Riverside County. DWA delivers water from 27 active wells into its water system through approximately 425 miles of pipeline. DWA's municipal service area does not include the MSWD service area, which is generally north of Interstate 10 and includes the City of Desert Hot Springs and its surroundings. MSWD provides municipal water service throughout its service area.

6.3.1.2 Water Recycling

In 1977, Desert Water Agency entered into an agreement with City of Palm Springs to enhance conservation and protect groundwater by recycling wastewater. DWA's water recycling facility opened in 1988. Today, the facility has a capacity of about 10 million gallons per day. DWA delivers recycled water to various locations throughout the community.

Sewage is collected at the City of Palm Springs wastewater treatment plant and treated. DWA then receives the treated water, and treats the water at our recycling facility again before it is distributed for use. Recycled water is used for irrigation on Palm Springs golf courses, public properties, parks and schools.

DWA recycles nearly all of the wastewater within the Agency's service area. In 2010, DWA completed construction of a half-million-gallon reservoir, expanding storage capacity of the plant. The Agency also constructed two shallow wells at the recycling facility in 2015. These wells are used to capture water that sits just beneath the ground's surface around the recycling facility. Even though this water is not suitable for drinking water, it can be used to supplement the recycled water supply.

6.3.1.3 Groundwater Replenishment

To manage the local supply, DWA implements artificial groundwater replenishment to augment natural replenishment as part of a joint groundwater basin management agreement with CVWD in the Indio Subbasin and with a management committee comprised of CVWD, MSWD, and DWA in the Mission Creek Subbasin. CVWD and DWA replenish local groundwater supplies using imported water from the SWP exchanged for Colorado River water supplies with MWD. SWP exchange water is recharged within the Whitewater River GRF and Mission Creek GRF.

CVWD operates and maintains the Whitewater River GRF and DWA operates and maintains the Mission Creek GRF in the West Valley. Both agencies share in the operation and maintenance costs for these facilities. The Whitewater River GRF (formerly referred to as the Whitewater Spreading Area) has operated since 1919, first with local surface runoff and, since 1973, with imported SWP exchange water. The Whitewater River GRF has a series of 19 ponds covering 700 acres adjacent to the Whitewater River. Local runoff and SWP water deliveries are transported to the ponds via the Whitewater River channel, and then diverted into the recharge ponds at two locations by diversion structures. Since its introduction in 1973, over 4.7 million AF have been recharged at this facility.

The Mission Creek GRF was constructed in 2002 and is operated by CVWD and DWA, with a resolution of support from MSWD. The facility receives SWP exchange water and consists of twelve percolation ponds located adjacent to Mission Creek in northern Coachella Valley. Replenishment at the facility began in late 2002 and, as of calendar year 2024, approximately 185,000 AF have been recharged. It typically recharges approximately 7,000 AF per year.

6.3.2 Service Area Boundary

DWA's service area encompasses the majority of the City of Palm Springs and Desert Hot Springs city limits, and includes portions of Cathedral City. In addition, unincorporated mostly rural areas are within the service area, though most such areas are not currently served by DWA infrastructure. Notably, the existing distribution system does not extend to areas within the DWA service area north of Interstate 10, resulting in no DWA water service to Desert Hot Springs. The DWA jurisdictional boundary is shown in Figure 6-1.

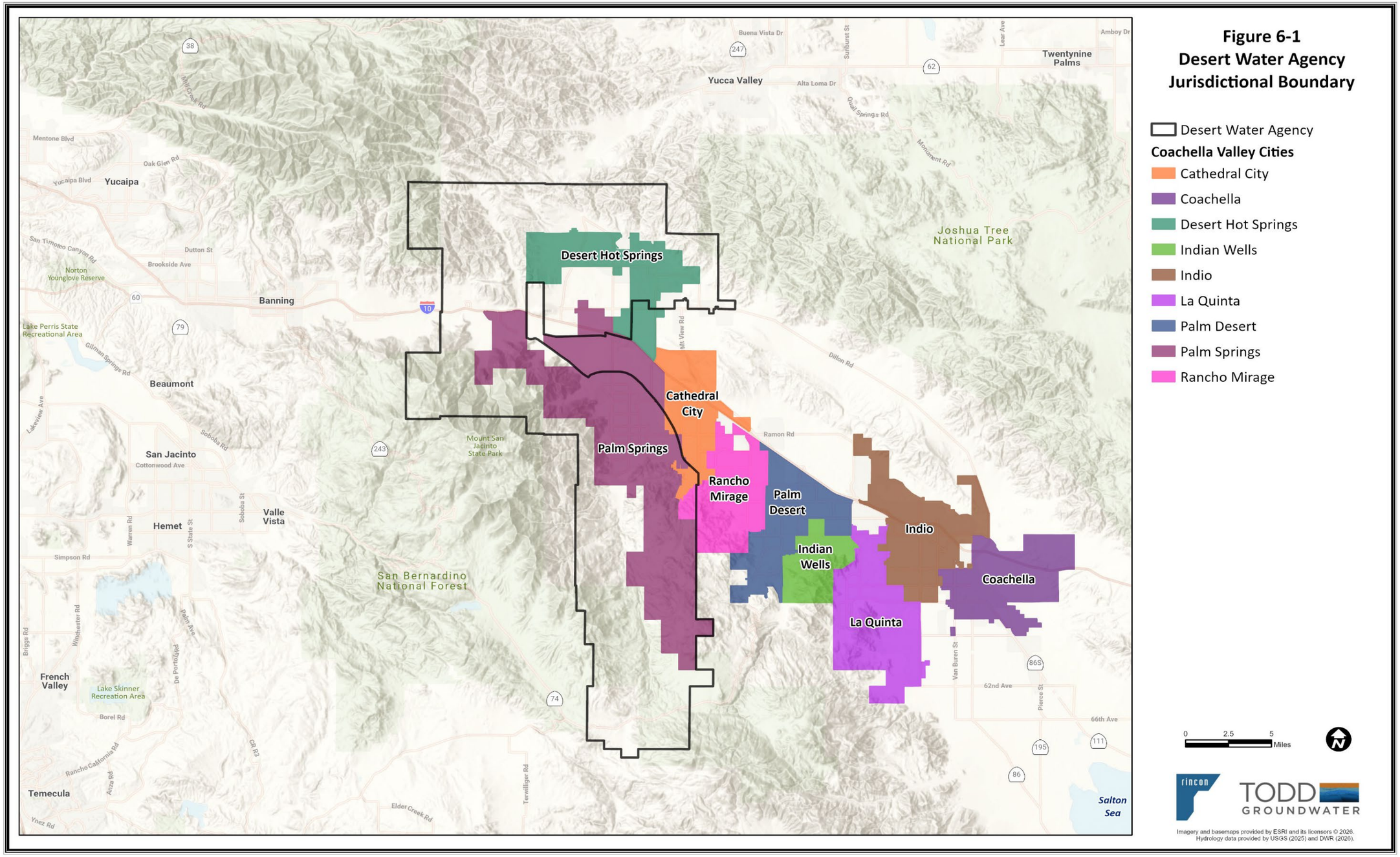


Figure 6-1. DWA Jurisdictional Boundary

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6.3.3 Service Area Climate

DWA's service area lies within the western Coachella Valley, which experiences an arid climate characterized by low humidity, high summer temperatures, and mild dry winters. The area normally receives an average annual precipitation of roughly four to five inches (most of which occurs in January, February, or March, except for summer thundershowers), and prevailing winds which are usually gentle but occasionally increase to velocities as high as 50 to 60 miles per hour or more with intense winds occurring most frequently in late spring. Midsummer temperatures commonly exceed 100 degrees F, frequently reach 110 degrees F, and periodically reach 120 degrees F. During the winter, the average temperature is about 60 degrees F.

Data from climate stations in Palm Springs (Palm Springs International Airport) represents climate in the DWA service area. The average rainfall and maximum and minimum monthly temperatures, as well as monthly average ETo rates, are shown in Table 6-3. Due to the low annual rainfall and high summer temperatures, large quantities of water are required for supplemental landscape irrigation, even during the cooler winter months. The data are plotted in Figure 6-2.

Table 6-3. Monthly Average Climate Data (Palm Springs)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Daily High Temperature (F)	71	74	81	87	95	104	109	108	102	91	79	69	89
Average Daily Low Temperature (F)	48	50	54	59	66	73	79	80	74	65	53	46	62
Average Total Precipitation (in)	1.14	1.11	0.51	0.09	0.02	0.00	0.25	0.14	0.24	0.20	0.23	0.68	4.61
Evapotranspiration, ETo (in)	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

Notes:
Temperature and Precipitation from National Weather Service Forecast office, Station Palm Springs Airport. Data from 1998 through 2020. Accessed through https://w2.weather.gov/climate/xmacis.php?wfo=sgx
ETo Data from California Irrigation Management Information System (CIMIS) Station 208, La Quinta II. Data from February 2007 through December 2020.

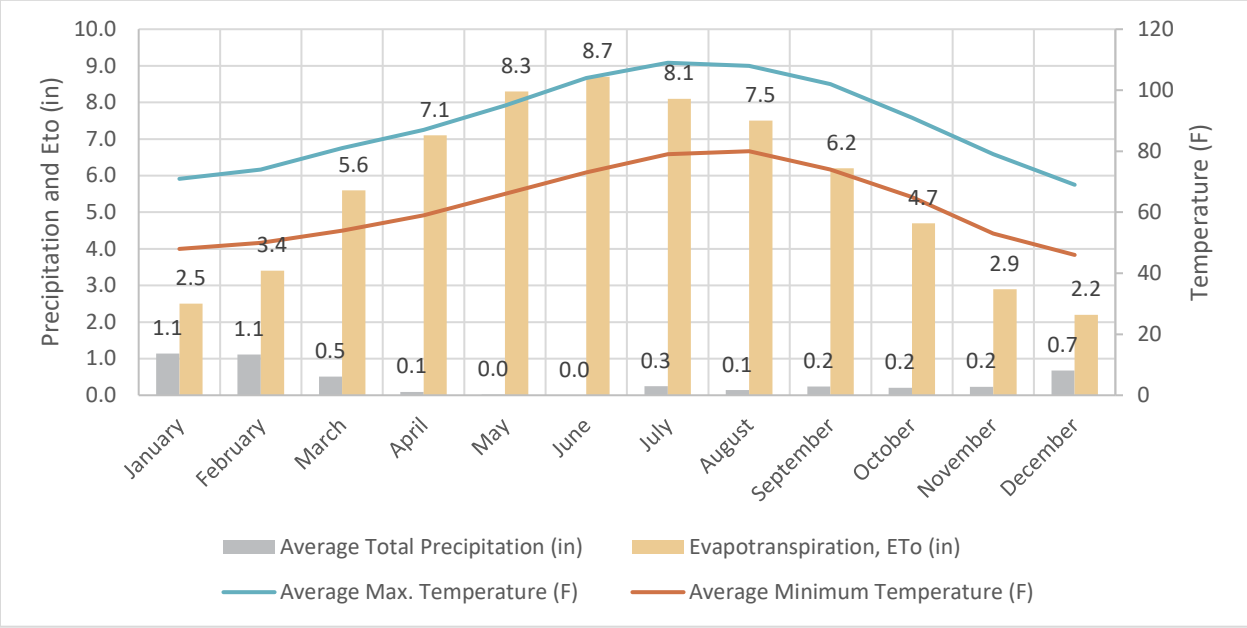


Figure 6-2. Monthly Average Climate Data

A discussion of the potential impacts of climate change on the region is included in Chapter 3 of the RUWMP.

6.3.4 Service Area Population and Demographics

This section describes the population and demographics within DWA's service area. Existing development within the western Coachella Valley primarily occupies the valley floor and is situated in Palm Springs, Cathedral City, Palm Springs Oasis (commonly known as Palm Oasis), and Snow Creek Village. Future development is expected to consist of infill within the local communities and expansion into canyons, coves, and mountainous areas.

Current and projected demographics within DWA's service area were developed by SCAG as part of the 2024 Regional Transportation Plan, referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

Table 6-4 shows the current and projected population within DWA's service area. DWA's total population is estimated based on its permanent year-round population and an adjustment for seasonal population with year-round water usage.

The City of Palm Springs contains the largest population within DWA's service area, with a current year-round population of 45,453, according to the U.S. Census Bureau population estimate for Palm Springs as of July 1, 2024. The Palm Springs area has experienced tremendous growth since its beginnings during the late 1800s, particularly during the period from 1970 to the present, during which the population more than doubled. The golf and tourism industries remain paramount to the area's economy.

Palm Springs is also a popular destination for a seasonal "snow bird" population and annual visitors as reported by the City of Palm Springs. The "snow bird" population consists mainly of people from the northeastern and midwestern United States, or from Canada, who spend a large portion of the winter in warmer locales such as California. "Snow birds" are drawn to the Palm Springs area by the weather, which includes around 350 days of sunshine. This seasonal population nearly doubles the permanent population in the winter months (November to April). Many seasonal residents occupy residences and condominiums that require year-round water use for maintenance, including irrigation.

Additionally, Palm Springs is one of the only cities in the area that does not have a prohibition or moratorium on short-term vacation rentals (STVRs). These properties are generally occupied with more people than the average resident household and are full much of the year. These properties use water indoors and out year-round, but do not have any associated resident population affiliated with them per the Census.

To estimate service area population, both permanent residents and seasonal residents were estimated. Estimates of the permanent population were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 6-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). Household totals for 2025 were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within DWA's service area using Census data. The seasonal population was then estimated by dividing the permanent population totals by the occupancy rate from the Census for each jurisdiction to determine the number of housing units in DWA's service area, and multiplying the total number of housing units by the difference between the average vacancy rate for California and the vacancy rate of each jurisdiction in DWA's service area. This resulting number was used for the seasonal population estimate. Lastly, the population in Recreational Vehicle (RV) parks was estimated using RV and population data from the Census. The recent and projected future service area population is shown in Table 6-4.

Table 6-4. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
Year-Round Population	46,457	51,730	57,004	58,779	60,554	62,329
Seasonal Population (Equivalent Year-Round Population)	13,150	14,250	15,350	15,658	15,966	16,275
RV Parks	143	143	143	143	143	143
Total	**59,750**	**66,123**	**72,497**	**74,580**	**76,663**	**78,746**
Note: Seasonal population and RV park population were estimated using method described in Section 6.3.4 and pre-approved by DWR.						

Since DWA relies primarily on groundwater for domestic water supply and imports SWP water for groundwater replenishment, the droughts of 1965-1967, 1976-1977, and 1989-1992 had negligible effects on DWA's ability to supply water to its customers. Though the drought period 2012-2015 was the driest on record in the state, DWA's ability to supply water to its customers was not impacted. In response to the drought and State mandates, and in addition to its existing water conservation programs, DWA has implemented several water conservation programs to reduce water demands within its service area.

Water conservation is one of several high-priority policies actively implemented within DWA, and programs such as water audits for large-volume water users and various conservation rebates are encouraged and well received. Since most water use within DWA's service area is used outdoors, DWA has focused conservation efforts on developing outdoor water conservation measures. Further explanation of DWA's water conservation programs is included in Section 6.9.

6.3.5 Land Uses within Service Area

Existing land uses within the DWA service area are a mixture of residential, commercial, industrial, institutional, and open space. Land uses within the Coachella Valley are shown in Figure 4-2. DWA collaborates on planning issues with the City of Palm Springs, the City of Cathedral City, and Riverside County, as well as other regional entities. The demand projections in this report were developed using the regional growth forecast developed by SCAG's Connect SoCal 2024 (SCAG, 2024).

Additionally, to support the demand forecast, DWA reached out to each of the cities within the region to request information on additional known development plans or approvals that may not have been included in the 2024 Connect SoCal effort. This information has been incorporated into the RUWMP demand forecast.

6.4 Water Use Characterization

This section describes the current and projected future water uses within DWA's service area. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

6.4.1 Non-Potable Versus Potable Water Use

DWA produces a majority of its water supplies from the Indio Subbasin, which is continuously replenished through DWA and CVWD water supply projects and programs. The Indio and Mission Creek Subbasins are regionally managed by the six participating agencies in this RUWMP.

In addition to groundwater, DWA uses local surface water to meet potable demands in its service area. DWA also produces and delivers recycled water and local surface water for non-potable uses.

6.4.2 Water Use by Sector

Data from DWA's billing system was used to summarize water sales by customer sector for the past five years. The sectors recorded are summarized in Table 6-5.

Table 6-5. Water Use Sectors

Sector	Description
Single-Family Residential	Single-family residential customers constitute the majority of DWA's customers.
Multi-Family Residential	Multiple dwelling units contained within one building or several buildings in a single complex.
Commercial/ Industrial	DWA has a complex mix of commercial customers, ranging from family restaurants, insurance offices, and gas stations to shopping centers, high-volume restaurants, golf courses, and other facilities serving the local and visitor populations (hotels). DWA serves a small industrial sector, primarily centered on light manufacturing. The industrial sector has not grown much in the last decade or so.
Institutional/Governmental	DWA has a stable institutional/governmental sector, primarily local government, parks, schools, and other types of public facilities.
Landscape	Currently, DWA utilizes both potable and recycled water for irrigation of large turf areas, such as golf courses, HOAs, schools, and public parks.
Other	Other water uses include losses, production from private wells within DWA's service area, tribal water demand, and authorized, non-billed consumption

As part of a parallel ongoing planning effort, the 2022 Indio Subbasin Alternative Plan is currently being updated in accordance with SGMA. This demand forecast was coordinated with the Alternative Plan Update's estimates of indoor and outdoor water use. Approximately 69 percent of water use for residential and commercial accounts is being used outdoors. With the unique climate, extensive landscape irrigation requirements, and destination resort atmosphere, the average annual water consumption per capita is considerably higher than most Southern California areas outside the Coachella Valley.

DWA exports a small amount of potable water to the Palm Springs Aerial Tramway. DWA does not use its potable water supply for any purpose other than domestic water.

6.4.2.1 Distribution System Losses

The difference between water production and metered water deliveries (billed to customers) is defined as non-revenue water. Non-revenue water includes authorized non-billed use (such as firefighting or flushing), and it includes losses from the system.

Water losses within DWA's water system generally result from water loss due to unauthorized connections, system leaks, and inaccuracies in production and consumption meters. Water losses are calculated as the difference between production meter records and customer meter records. DWA either estimates or measures water for firefighting, fire hydrant flow testing, water main flushing, reservoir cleaning, and identifiable system leaks and excludes these quantities from its calculated water losses.

DWA has completed annual water audits using the AWWA Water Audit Software. The completed audits are included in Appendix E of the RUWMP. The losses recorded are summarized in Table 6-6.

Table 6-6. DWR 4-4R 12 Month Water Loss Audit Reporting

Report Period Start Date		Volume of Real Water Loss (AFY)	Submitted to DWR Water Loss Audit Program
MM	YYYY		
01	2020	1,370	Yes
01	2021	1,524	Yes
01	2022	2,076	Yes
01	2023	1,330	Yes
01	2024	2,125	Yes

The real water loss performance standard for DWA's distribution system is 69.4 gallons per service connection per day, with no reduction from the State estimated baseline. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. DWA's real water loss currently averages about 57.9 gallons per connection per day, with the most recent reporting year averaging 73.4 gallons of real water loss per connection per day. Table 6-6 shows the City's progress towards the 2028 Water Loss Standard. The actual water use for 2025 is summarized in Table 6-7.

Table 6-7. DWR 4-6R Progress Towards 2028 Water Loss Standard – Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units	Volume of Total Real Loss (from AWWA Water Loss Audit)	Real Water Loss Per Unit per Day
CA3310005	Yes	69.4	Gallons per Connection per Day (GPCPD)	25,847	2,124.96	73.4

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit)	Apparent Water Loss Per Unit per Day
CA3310005	Yes	14.6	Gallons per Connection per Day (GPCPD)	25,847	392.28	13.5

6.4.2.2 Summary of Current Uses

The uses in DWA's urban water system for 2020 through 2025 are summarized in Table 6-8. Recycled water meets forecasted landscape category demands as new irrigation customers come online.

Table 6-8. DWR 4-1R Urban Water Use 2020-2025 (AFY)

Use Type	Additional Description	Level of Treatment When Delivered	2020	2021	2022	2023	2024	2025
Single Family		Potable	17,882	18,263	17,576	16,488	17,672	17,165
Multi-Family		Potable	644	645	618	564	615	825
Commercial		Potable	4,920	5,306	5,299	5,093	5,286	5,141
Institutional/ Governmental		Potable	1,187	1,130	1,096	947	1,072	1,159
Landscape[1]	Supplement to recycled water	Potable	1,098	1,065	1,052	1,039	1,026	4,489
Sales/Transfers/Exchanges to other Suppliers	Surface water to Palm Springs Aerial Tramway	Potable	0	11	14	17	14	11
Other	Construction	Potable	238	174	119	92	90	402
Other	Non-Revenue	Potable	6,856	6,649	6,365	5,518	6,670	4,687
Subtotal Potable			**32,825**	**33,243**	**32,139**	**29,758**	**32,445**	**33,879**
Commercial	Surface water[2]	Non-Potable	954	355	297	262	295	340
Landscape[1]	Recycled Water	Non-Potable	3,520	3,472	3,220	3,101	3,100	142
Subtotal Non-Potable			**4,474**	**3,827**	**3,517**	**3,363**	**3,395**	**482**
Total			**37,299**	**37,070**	**35,656**	**33,121**	**35,840**	**34,362**

Note: Non-revenue water is the difference between production and customer billing. It includes losses and authorized, non-billed consumption.

[1] For landscape uses, 2025 recycled water was supplemented with potable water while the plant was non-operational from January 2025 through November 2025.

[2] For surface water uses, agriculture and groundwater recharge volumes are not included.

6.4.3 Demand Forecast

DWA is participating in the 2027 Indio Subbasin Alternate Plan Update and 2027 Mission Creek Subbasin Alternative Plan Update being prepared to meet requirements of SGMA. The RUWMP participating agencies coordinated efforts with demand projections being prepared for the Alternative Plan Updates. The demand projection approach included the following steps:

1. The projections were based on the regional growth forecast prepared by SCAG as part of their Regional Transportation Plan, Connect SoCal 2024. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each TAZ in their study area (SCAG 2024).
2. Additional analysis of vacancy rates was performed to estimate baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time users.
3. Baseline and projected estimates of employment were used to drive future growth in Commercial, Industrial, and Institutional (CII) demands.

4. Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to the DWA service area. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.
5. Water losses were estimated using water loss audits from the last five years (2020 to 2024).
6. Demands were adjusted for the following types of conservation savings:
    - Indoor passive conservation savings from the natural replacement of indoor devices and plumbing fixtures.
    - Outdoor conservation savings from the implementation of the 2015 Model Water Efficiency Landscape Ordinance (MWELO) for future developments.
    - Outdoor conservation savings from turf replacement due to local rebate programs.
    - Outdoor conservation savings from the installation of smart irrigation controllers due to local rebate programs.
    - Outdoor conservation savings from the implementation of DWA's Ordinance Number 80, which bans the use of potable water for irrigating non-functional turf for CII and HOA properties, beginning to take effect in 2027 with full implementation in 2031.

Projected municipal demands for DWA's service area are shown in Table 6-9.

Table 6-9. DWR 4-2R Projected Demands for Water (AF)

Use Type	Additional Description	Level of Treatment	Projected Water Use (AFY)				
			2030	2035	2040	2045	2050
Single Family		Potable	17,586	18,046	18,351	18,695	19,039
Multi-Family		Potable	747	695	644	607	570
Commercial		Potable	5,518	5,627	5,739	5,860	5,982
Institutional/ Governmental	Includes public authority	Potable	3,312	3,509	3,574	3,634	3,695
Landscape[1]		Potable	385	276	445	615	784
Sales/Transfers/Exchanges to other Suppliers	Surface water to Palm Springs Aerial Tramway	Potable	14	14	14	14	14
Other	Construction	Potable	9	9	9	9	9
Other	Non-Revenue	Potable	6,401	6,447	6,516	6,585	6,654
Subtotal Potable			**33,542**	**34,194**	**34,861**	**35,588**	**36,315**
Commercial	Surface Water[2]	Non-Potable	433	433	433	433	433
Landscape[1]	Recycled Water	Non-Potable	3,413	3,413	3,413	3,413	3,413
Subtotal Non-Potable			**3,846**	**3,846**	**3,846**	**3,846**	**3,846**
Total			**37,388**	**38,039**	**38,707**	**39,433**	**40,161**

Note: Non-revenue water is the difference between production and customer billing. It includes losses and authorized, non-billed consumption.

[1] For landscape uses, 2025 recycled water was supplemented with potable water while the plant was non-operational from January 2025 through November 2025.

[2] For surface water uses, agriculture and groundwater recharge volumes are not included. Surface water used

6.4.3.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above). The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use) as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings". The model considers these mandates and the average useful life and replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014).

Anticipated outdoor water use savings were based primarily on irrigation reduction via the implementation of ordinances and incentives for water reduction. One such ordinance is the California Model Water Efficiency Landscape Ordinance (MWELO) which is the standard for outdoor water conservation for the state. The resulting water savings from the MWELO are estimated using an ETAF which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the ban on irrigating non-functional turf with potable water, smart irrigation controllers, and turf replacement. AB 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e. ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect governmental, commercial, institutional, and common areas of multi-family residential properties. The City of Palm Springs also has rebates in place to encourage water conservation through turf replacement. These savings are not considered passive as they are implemented through rebates under conservation programs.

The estimated water savings due to codes and standards are included in the estimated demands in Table 6-9. These estimated savings were quantified in the water demand projections presented in Table 6-10.

Table 6-10. Passive Water Savings Projections (AFY)

Passive Savings	2030	2035	2040	2045	2050
Device Replacement[1]	353	630	840	990	1,140
MWELO[2]	320	588	771	953	1,135
Non-Functional Turf Ban	1,034	1,379	1,379	1,379	1,379
Total Passive Savings	**1,707**	**2,598**	**2,990**	**3,322**	**3,654**

[1]Device Replacement includes indoor water savings from the replacement of toilets, showerheads, faucets, washing machines, and dishwashers with newer, more water efficient models.

[2]Savings from the implementation of the MWELO are calculated by applying an evapotranspiration adjustment factor to projected additional outdoor water use.

6.4.3.2 Total Gross Water Use

Gross water use, including projected recycled water demands, are shown in Table 6-11.

Table 6-11. Total Gross Water Use (AFY)

	2025	2030	2035	2040	2045	2050
Potable and Raw Water	34,220	33,975	34,626	35,294	36,020	36,748
Recycled Water	142	3,413	3,413	3,413	3,413	3,413
Total Water Use	**34,362**	**37,388**	**38,039**	**38,707**	**39,433**	**40,161**
Recycled water projections are based on current tertiary capacity at treatment plans and do not include planned recycling at plants that will require additional or expanded tertiary capacity.						

6.4.4 Water Use for Lower Income Households

DWA has a civic and legal responsibility to provide for the water-related health and safety of the community. DWA's main objective is to provide its customers with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible manner.

Residential sector water use projections herein include all households, regardless of income level, and residential accounts are not subdivided into income-specific categories.

DWA does not give priority to one residential area over another; therefore, all residential customers are served equally during water shortage emergencies in terms of service and delivery. DWA does not deny service to delinquent accounts. Additionally, DWA has established a fund to assist low-income customers in paying their water bills.

The water use projections set forth in Table 6-9 include projected water use for lower-income households. Water use priority does not differ based on income level but is classified by the type of use.

6.4.5 Climate Change Considerations

A discussion of potential climate change impacts on demands is presented in Chapter 3 of the RUWMP. Increased temperatures in the Coachella Valley are expected to increase water demands for crop and landscape irrigation, municipal water use, and evaporative losses from canals and open reservoirs. Increased summer temperatures could draw increased monsoonal flow resulting in more frequent summer thunderstorms. As part of this RUWMP and the associated Alternative Plan Updates, the water suppliers have adopted a consensus approach to modeling the potentials impacts of climate change on local runoff, groundwater recharge, and SWP and Colorado River deliveries. A combination of state- and local-led DMMs may reduce demand for irrigation via landscape ordinances while public outreach and education can lead to reductions in water demands through conservation measures.

6.5 SB7x7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that DWA achieved its 2020 water use target in 2020.

6.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. DWA selected to use Method 1, which was calculated based on the selected 10-year baseline of 593 GPCD. Using that criteria, DWA's selected 2020 target was 474 GPCD.

6.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, DWA's service area population and gross water use were compared to the SBx7-7 target. The gross water used was obtained from water production records. DWA's water use was calculated as 405 GPCD for year 2020.

6.5.3 Supplier Met 2020 Target in 2020

DWA met their 2020 target as reflected in Table 6-12 below, which includes their 2020 target and 2020 Actual GPCD. DWA was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

Table 6-12 DWR 5-1R SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	474	405	Yes

6.6 Water Supply Characterization

This section describes the water supplies currently available to DWA and those planned for the 25-year planning period.

6.6.1 Water Supply Analysis Overview

In the 1920s and 1930s, the City of Palm Springs' municipal water supply was derived entirely from creek diversions (surface water) maintained by the Palm Springs Water Company, which was purchased by DWA in 1968. Currently, DWA's sources of supply include groundwater produced by potable water supply wells, surface water diverted from creeks in the San Jacinto Mountains and Whitewater River, imported SWP water exchanged for Colorado River water, and recycled water (for irrigation use). Surface water that is not directly used for consumption is conveyed downstream to the replenishment basins. Imported SWP water is also used to replenish the Indio and Mission Creek Subbasins. DWA's imported water agreements are described in Chapter 3 of this RUWMP because they support regional basin management and are not directly delivered to urban customers.

Further discussion of regional water supply sources is presented in Chapter 3 of the RUWMP.

6.6.2 Supply Characterization

This discussion includes the types of water supply considered by DWR. As described in Chapter 3 of the RUWMP, CVWD and DWA use imported SWP water to replenish groundwater at the Whitewater River GRF overlying Indio Subbasin and the Mission Creek GRF overlying the Mission Creek Subbasin. These imported supplies support regional basin management and are not considered in this RUWMP as a supply that directly meets DWA's municipal demands. As shown in Table 6-11, DWA delivers groundwater, surface water, and recycled water to meet customer demands.

Table 6-13. Urban Water Supply 2020-2024 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024
Groundwater	Indio Subbasin[1]	32,384	31,414	29,102	27,100	29,837
Surface water	Chino Creek, Snow Creek, Falls Creek, Whitewater River	1,395	2,184	3,334	2,920	2,903
Recycled water	DWA WRF	3,520	3,472	3,220	3,101	3,100
Total		**37,299**	**37,070**	**35,656**	**33,121**	**35,840**

[1] Surface water conveyed to downstream replenishment basins is subtracted from the groundwater supply total to avoid double counting water that is recharged and pumped in the same year.

6.6.2.1 Purchased or Imported Water

DWA is a SWP Contractor and receives water through the SWP, which originates in the Feather River watershed in the Sierra Nevada and conveys water to 29 SWP Contractors through the Sacramento-San Joaquin Delta. DWA does not have a physical connection to the SWP system, which terminates at Lake Perris in western Riverside County. Since there is no physical connection to bring SWP water to Coachella Valley, Colorado River water has been and continues to be exchanged for SWP water per the delivery and exchange agreements, as amended in 2019 (Second Amendment) among DWA, CVWD, and MWD. The Second Amendment is set to expire on December 31, 2026. In 2025, a Third Amendment was proposed to establish a goal of extending out to 2077 which aligns with the QSA expiration. Under the Third Amendment framework, language was adjusted to allow a pre-delivery of up to 200,000 AF by December 31, 2026 and a total transfer of 315,000 AF by December 31, 2035 (CVWD 2025e). All 200,000 AF of the requested pre-delivery was provided by MWD in 2025. Though this still totals an average of 35,000 AF per year, it allows flexibility for MWD to defer deliveries in some years as long as the full 315,000 AF is delivered by 2035. The SWP exchange water is delivered to the western end of Coachella Valley from MWD's Colorado River Aqueduct, and in exchange MWD accepts DWA's SWP water. Together, DWA and CVWD use this SWP exchange water for groundwater recharge at Whitewater River GRF in East Indio Subbasin and Mission Creek GRF in Mission Creek Subbasin, and not to directly meet municipal demands.

SWP water deliveries consist of DWA's apportionment of its Table A allocation (as determined annually by DWR), Article 21 surplus water allocation (when available), and other surplus water acquired and conveyed through the SWP. DWA initially contracted with the State of California for SWP water in 1963, with an initial contractual Table A allocation of 38,100 AFY. DWA has since executed agreements with other SWP Contractors for additional Table A water for a maximum of 55,750 AFY. Occasionally, high flows in the SWP system create conditions where all the water cannot be completely stored in the SWP's San Luis Reservoir, making Article 21 water available to DWA. DWR's Draft 2025 Delivery Capability Report estimates the long-term average annual SWP Table A deliveries will decrease to 43 – 48% of the maximum Table A amount by 2043 (DWR 2025).

Two future SWP projects that are being implemented at the State level to increase SWP deliveries are the Sites Reservoir and the Delta Conveyance Project—both projects are included in DWA's supply forecast. More information about DWA's use of SWP water is included in Chapter 3 of the RUWMP.

Imported Water Quality

DWA exchanges its Table A allocations of SWP water with MWD for Colorado River water to augment the Indio and Mission Creek Subbasins. Colorado River water is generally of good quality; however, Colorado River water has a higher TDS concentration (greater than 500 mg/L) than native groundwater (less than 500 mg/L). TDS consist of minerals and salts dissolved in water, typically resulting from the erosion of natural deposits. The SWRCB DDW has established a secondary MCL of 1,000 mg/L for TDS, with a recommended level of 500 mg/L. The MCL for TDS concentration is a secondary drinking water standard, meaning that TDS is regulated on the basis of customer acceptance rather than on the basis of public health.

DWA is collaborating with the regional water suppliers and other parties to update the Coachella Valley Salt and Nutrient Management Plan (SNMP) for RWQCB approval. Through this collaboration, DWA hopes to achieve long-term salinity management strategies that are protective of both water quality and quantity.

Due to ammonium perchlorate contamination from manufacturing facilities in Nevada, perchlorate has been detected in Colorado River water. Perchlorate is a substance that can be either naturally occurring or man-made. Currently, perchlorate is a regulated contaminant with a State MCL of 6 µg/L. Within DWA's service area, very low levels of perchlorate (<1 µg/L) have been detected in nearly every well; however, perchlorate concentrations are well below the MCL and are expected to continually decrease over time. Capture and treatment of perchlorate contamination began in 1999, and concentrations of perchlorate in the Colorado River have been decreasing ever since. The presence of perchlorate in Colorado River water is not expected to affect the reliability of DWA's water supply.

6.6.2.2 Groundwater

Groundwater is the principal source of municipal water supply in the Coachella Valley. DWA obtains groundwater from the Indio Subbasin and supports basin management in both the Indio and Mission Creek Subbasin. The Indio Subbasin is a common groundwater source, which is shared by CVWD, CWA, DWA, Indio, MDMWC, and numerous private groundwater producers. The Mission Creek Subbasin is also a common water supply that is utilized by CVWD, MSWD, and private groundwater producers. More information about local groundwater resources is included in Chapter 3 of the RUWMP.

DWA extracts groundwater comprising natural recharge, artificial recharge with imported water, non-consumptive return, and groundwater from storage. Net natural replenishment for the Indio Subbasin averages 52,500 AFY. Groundwater from storage is continued groundwater extraction, typically in dry years, required to meet demands in addition to natural and imported supplies. Non-consumptive return flows are estimated to be 29 to 35 percent of groundwater and surface water applied on landscapes but not consumed, which therefore percolates to groundwater.

Groundwater pumped by DWA over the past five years from the Indio Subbasin is summarized in Table 6-14. In response to growth, DWA will gradually increase groundwater production to meet demands. DWA intends to continue meeting its urban water demands with groundwater.

Table 6-14. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Indio Subbasin	33,232	32,125	29,741	32,431	33,868
Total		**33,232**	**32,125**	**29,741**	**32,431**	**33,868**

In addition to other urban water retail producers, there are private producers who pump directly from the groundwater basin. To manage groundwater levels, DWA will continue to implement water use efficiency programs for large landscapes and convert the larger producers to recycled water, where feasible. DWA also works with agencies in the region to replenish the groundwater basin and implement conservation programs.

Groundwater Quality

DWA's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by DWA meets all U.S. EPA and SWRCB guidelines (DWA 2025).

Constraints on DWA's groundwater supplies resulting from water quality include those that could result from high concentrations of nitrate and uranium in the groundwater. DWA's Well 19 was taken out of service as a result of high nitrate concentrations in the underlying groundwater, which are caused by discharges from septic systems in the area. As a result of the high nitrate concentrations, Well 19 remains inoperable, and groundwater in the vicinity of the well is unusable.

While uranium levels are naturally occurring, several of DWA's wells, namely Wells 9, 14, 16, and 43, are intermittently inoperable due to elevated levels of uranium in the groundwater.

The federal MCLs for PFAS, specifically PFOA and FPOS, of 4.0 parts per trillion (ppt) were set in April 2024. In October 2024, DWA had one sample result from one well for PFOS (perfluorooctanesulfonic acid, a per- and poly-fluoroalkyl substance) that was 5.5 ppt. DWA continues to be in compliance with all regulations and will complete additional testing as required to ensure all state and federal standards are met.

In October 2024, the SWRCB approved the country's first drinking water standard for hexavalent chromium (chromium-6) at 10 µg/L. Chromium-6 is a naturally occurring metal that can appear in water as natural erosion from the environment or as discharge from industrial processes. DWA has not detected chromium-6 in its water distribution system above the State's MCL.

6.6.2.3 Surface Water

DWA has rights to divert surface water from local streams tributary to the Whitewater River. Surface water sources are secured from Snow and Falls Creeks, Chino Creeks North and West, and the Whitewater River. DWA's surface water diversions are used to meet municipal and agricultural water demands.

Per SWRCB Water Rights Division Licenses 2292 (SWRCB, License for Diversion and Use of Water 2292 CalWATRS 1941) and 8226 (SWRCB 1966), DWA is permitted to divert 5.5 cubic feet per second (cfs) from Snow Creek and 1.5 cfs from Falls Creek per license 3097 (SWRCB 1949), for a total of 7 cfs from both creeks combined. Under the Whitewater River Adjudication Decree, Case No. 18035, dated September 28, 1938, DWA has the right to divert 2 cfs from Chino Creek.

In 2009, DWA acquired water rights for the diversion of Whitewater River water from the Whitewater Mutual Water Company (WMWC) through stock purchase agreements with stockholders. Therefore, the water previously diverted by WMWC is now incorporated into DWA's supply. WMWC has diverted Whitewater River water pursuant to its adjudicated stream rights (Whitewater River Adjudication Decree, dated September 28, 1938). DWA now continues to use that right, which is 10 cfs with a priority date of September 19, 1913.

The diversion at Chino Creek North was taken out of service in 2000 due to turbidity spikes in the source water, and it cannot be restored to potable service without filtration. Water that had been historically diverted from Chino Creek North now infiltrates the creek bed below the diversion, recharging the groundwater basin. DWA continues to monitor the water quality of Chino Creek North to determine when it may be put back into service.

Average annual surface water diversions are assumed to increase from 2,361 AFY in 2030 to 6,000 AFY in 2035. Surface water diversions are summarized in Table 6-15 below.

Surface Water Quality

Several of DWA's surface water diversions are occasionally taken out of service due to water quality. In the summer months Snow and Falls Creeks are subject to high levels of coliform bacteria and therefore require additional disinfection. In 2020, DWA completed construction of a surface water filtration plant to filter water from Snow and Falls Creek. Chino Creek, serving the Palm Springs Aerial Tramway, operates in accordance with filtration avoidance criteria.

Table 6-15. DWR 6-8R Surface Water Supplies (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Surface Water	Chino Creek	32	36	30	24	18
Surface Water	Snow & Falls Creek	1,014	2,304	1,991	2,310	1,664
Surface Water	Whitewater River	1,138	994	899	569	314
Total		**2,184**	**3,334**	**2,920**	**2,903**	**1,996**
Note: Surface water supplies include diversions for groundwater replenishment.						

6.6.2.4 Stormwater

DWA does not use stormwater directly as a source of supply. DWA is involved in regional efforts to identify opportunities to cost-effectively capture stormwater for potential beneficial use, but currently does not operate a dedicated urban stormwater capture program within the service area.

6.6.2.5 Wastewater and Recycled Water

DWA provides both potable and recycled water delivery within its service area. The City of Palm Springs maintains a sanitary sewer collection system consisting of approximately 250 miles of gravity sewer pipe within city limits. DWA is responsible for providing wastewater collection service within portions of Cathedral City and unincorporated Riverside County.

The use of recycled water plays a key role in DWA's resource management as it serves to conserve and protect groundwater and surface water supplies for potable uses. In 1988, DWA and the City of Palm Springs entered into an agreement to treat wastewater. Under the agreement, the City provides primary and secondary treatment at the City of Palm Springs WWTP, after which the secondary effluent is piped to the DWA WRF for tertiary treatment or to a collection of percolation ponds for recharge back into the groundwater basin.

In 1989, the DWA WRF was constructed with an initial capacity of 5.0 MGD. The facility was expanded in 1995 to its present capacity of 10.0 MGD (ultimate capacity of 15.0 MGD). DWA's recycled water system facilities consist of the DWA WRF, two booster pumping plants, and transmission pipelines. While secondary effluent from the City of Palm Springs WWTP is available for recycling and delivery to non-potable customers, the majority of secondary effluent is currently diverted to the percolation ponds for groundwater recharge rather than direct recycled water distribution.

When recycled water demand exists, DWA has the capability to treat available secondary effluent to tertiary standards and deliver it to approved customers. DWA also maintains the ability to supplement recycled water supplies with non-potable groundwater from shallow wells to meet peak seasonal irrigation demands, and potable water may be used in limited circumstances if necessary to maintain system reliability. In 2014, DWA constructed two non-potable, shallow groundwater wells (1,200 gallons per minute [gpm] capacity each) that are intended to extract shallow, low-quality groundwater to supplement recycled water demands in the summer months in-lieu of potable water. Supplemental production from these wells is used to meet peak seasonal demands and support system flexibility. Current recycled water demands do not require full utilization of available secondary supply and resultant effluent volumes vary seasonally.

Recycled water production is limited by the volume of wastewater received at the City of Palm Springs WWTP. Wastewater flows have declined in recent years due to water conservation and improved indoor water use efficiency. In addition, the City is largely built out, and significant increases in wastewater flows are not expected. As a result, opportunities to expand recycled water supply within DWA's service area are limited. Additionally, portions of the service area require interagency coordination for wastewater conveyance; however, these arrangements do not substantially alter recycled water availability.

The recycled water produced by the DWA WRF is approved for all uses, except drinking, by the SWRCB. To help demonstrate the positive effects of using recycled water, DWA's Operations Center and WRF are both irrigated with recycled water. The City of Palm Springs Demuth Park and several Palm Springs golf courses and athletic fields are also irrigated with recycled water, among other locations within DWA's service area.

Currently, all recycled water produced by DWA's facility is utilized for non-potable irrigation purposes. Given the substantial irrigation demands within the service area, irrigation is expected to remain the primary use of recycled water. While recycled water use does not materially change overall consumptive use patterns, it can offset groundwater pumping and support long-term basin sustainability. DWA continues to evaluate additional recycled water connections where feasible.

Wastewater collection within the DWA service area is summarized in Table 6-16, and wastewater treatment is provided in Table 6-17. The 2025 use of recycled water and projected future use is presented in Table 6-18. The actual use in 2025 is compared to the projections from the 2020 UWMP in Table 6-19.

Table 6-16. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**	**WWTP Operation Contracted to a Third Party**
City of Palm Springs	Metered	4,890	City of Palm Springs	Palm Springs WWTP	Yes	Yes
Desert Water Agency	Estimated	101	CVWD	WRP-10	No	No
Total		**4,991**				

Table 6-17. DWR 6-3R Wastewater Treatment and Discharge within Service Area in 2025

							2025 Volumes (AFY)				
Wastewater Treatment Plant Name	**Discharge Location Name or Identifier**	**Discharge Location Description**	**Wastewater Discharge ID Number**	**Method of Disposal**	**Plant Treats Wastewater Generated Outside the Service Area**	**Treatment Level**	**Wastewater Treated**	**Discharged Treated Wastewater**	**Recycled Within Service Area**	**Recycled Outside of Service Area**	**Instream Flow Permit Requirement**
Palm Springs WWTP	CIWQS ID: 247435	Percolation Pond	7A330114012	Percolation Pond	No	Secondary	4,890	4,800	90	0	0
DWA WRF	CIWQS ID: 220932	N/A	7A330132001	N/A	No	Tertiary	142	0	142	0	0
Total							**5,032**	**4,800**	**232**		
Note: Treatment at CVWD WRP-7 is reported in CVWD chapter of the RUWMP.											

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Table 6-18. DWR 6-4R Recycled Water Direct Beneficial Uses Within Service Area

Name of Supplier Producing (Treating) the Recycled Water			Desert Water Agency					
Name of Supplier Operating the Recycled Water Distribution System			Desert Water Agency					
Supplemental Volume of Water Added in 2025			2,893[1]					
Source of 2025 Supplemental Water			Shallow groundwater wells and potable water					
Beneficial Use Type	**Level of Treatment**	**General Description of 2025 Uses**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Landscape Irrigation (excludes golf courses)	Tertiary	HOAs and municipal landscaping	874	740	740	740	740	740
Golf Course Irrigation	Tertiary	Golf courses	2,162	2,673	2,673	2,673	2,673	2,673
Total			**3,046**	**3,413**	**3,413**	**3,413**	**3,413**	**3,413**

[1] Water recycling plant was offline from 1/1/2025 through 12/1/2025; plant was returned to service on 12/2/2025. Recycled water customers were served supplemental potable water from 1/1/2025 through 12/1/2025.
2030 through 2050 totals are assumed to be served fully by recycled water.

Table 6-19. DWR 6-5R Recycled Water Use Projection Compared to Actual

Use Type	**2020 Projection for 2025 (AFY)**	**2025 Actual Use[1] (AFY)**
Landscape Irrigation (excludes golf courses)	740	874
Golf Course Irrigation	2,673	2,162
Total	**3,413**	**3,046**

[1] Water recycling plant was offline from 1/1/2025 through 12/1/2025; plant was returned to service on 12/2/2025. Recycled water customers were served supplemental potable water from 1/1/2025 through 12/1/2025

DWA offers the following incentives to encourage recycled water use within its service area:

- **Favorable Rates** – DWA's rates for providing recycled water to its customers are approximately one-half of its rates for providing potable water.
- **Cost-Sharing** – DWA participates in the cost of constructing offsite water recycling facilities.
- **Technical Assistance** – DWA provides technical assistance to its recycled water customers at no charge.
- **Reliability Guarantee** – DWA guarantees its recycled water service reliability (with qualifying statements), even during water supply shortages (excluding disaster conditions). In the event that DWA is unable to provide recycled water, it will supply shallow groundwater or potable water to its recycled water customers.
- **Cost-Comparisons** – DWA provides potential recycled water customers with a comparison of the costs of using recycled water for irrigation versus the costs of constructing and operating a private water well, including costs associated with groundwater replenishment assessments.

Historically, the favorable rates for recycled water have been the primary incentive for customers with large landscape areas to use recycled water in lieu of potable water for irrigation. DWA experienced a reduction in recycled water demand beginning in 2020 when a major recycled water customer discontinued service. Since that time, DWA has continued to operate and maintain its recycled water system and has evaluated

opportunities to expand recycled water use within its service area where feasible. Table 6-20 shows the expected increase in recycled water use due to the encouragement of recycled water use.

Table 6-20. DWR 6-6R Methods to Encourage Future Recycled Water Use

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Favorable Rates	DWA's rates for providing recycled water to its customers are approximately one-half of its rates for providing potable water.	Current	257
Cost-Sharing	DWA participates in the cost of constructing offsite water recycling facilities.	Current	64
Technical Assistance	DWA provides technical assistance to its recycled water customers at no charge.	Current	64
Reliability Guarantee	DWA guarantees its recycled water service reliability (with qualifying statements), even during water supply shortages (excluding disaster conditions). In the event that DWA is unable to provide recycled water, it will supply shallow groundwater or potable water to its recycled water customers.	Current	64
Cost-Comparisons	DWA provides potential recycled water customers with a comparison of the costs of using recycled water for irrigation versus the costs of constructing and operating a private water well, including costs associated with groundwater replenishment assessments.	Current	64

6.6.2.6 Desalinated Water Opportunities

DWA does not have direct access to ocean water or a significant quantity of brackish groundwater. There is a limited and uncertain supply of brackish groundwater at the downstream (lower or southeasterly) end of the Mission Creek Subbasin. However, extraction of such brackish groundwater would deplete the same subbasin from which usable groundwater is extracted. At this time, DWA has no plans to extract and treat brackish groundwater as a potential source of water supply.

6.6.2.7 Water Exchanges and Transfers

DWA's SWP exchange water is a significant source of supply for groundwater recharge in the Coachella Valley. DWA has executed multiple exchanges and transfers associated with its imported water supplies. This supply is described in Chapter 3 of the RUWMP.

DWA continues to explore additional opportunities to obtain supplemental sources through transfers or exchanges with other suppliers.

DWA currently has emergency interties with CVWD.

6.6.2.8 Future Water Projects

DWA recognizes the need to obtain additional water supplies to meet projected water demands and prevent groundwater overdraft. DWA is investigating several Statewide projects to obtain additional supply or improve the reliability of SWP supplies. Increased groundwater replenishment with SWP exchange water would help with groundwater basin management objectives. However, the water would not be used to meet urban demands directly; the water would be used for groundwater replenishment.

Sites Reservoir

The Sites Reservoir Project would construct 1.5 million AF off-stream storage to capture and store stormwater flows from the Sacramento River for release in dry years. Sites Reservoir would be situated on the west side of the Sacramento Valley, approximately 10 miles west of Maxwell, CA. When operated in coordination with other Northern California reservoirs such as Shasta, Oroville, and Folsom, which function as the backbone to both the SWP and the Central Valley Project, Sites Reservoir would increase flexibility and reliability of statewide water supplies in drier periods.

In 2019, DWA entered into an agreement with the Sites Project Authority for the next phase of planning for the Sites Reservoir. Administered by the Sites Project Authority, DWA forecasts availability of 5,100 AFY in Sites Reservoir supply.

Delta Conveyance Project

The Delta Conveyance Project (DCP) would construct and operate new conveyance facilities in the Delta, primarily a new tunnel to bypass existing natural channels through the Delta that are used for conveyance. New intake facilities would be located in the north Delta along the Sacramento River between Freeport, CA and the confluence with Sutter Slough. A new tunnel would convey water from the new intakes to the existing Banks Pumping Plant and potentially the federal Jones Pumping Plant, both in the south Delta. The DCP would provide an alternate location for diversion of water from the Delta and would be operated in coordination with the existing south Delta pumping facilities.

DWA has approved an agreement to advance its share of funding for DCP planning and design costs. DWA forecasts increased reliability of 5,900 AFY in SWP supplies. Administered by DWR, the DCP is currently in the planning and environmental compliance phase.

Table 6-21 provides a summary of expected future water supply projects. It is assumed that DWA will receive additional imported supply from the Sites Reservoir and DCP via MWD's Colorado River Aqueduct along with existing SWP supplies.

Table 6-21. DWR 6-7R Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier (AFY)
Sites Reservoir	Yes	Sites Project Authority, MWD	2035	Normal	5,100
Delta Conveyance Project	Yes	DWR, MWD	2047	Normal	5,900

6.6.2.9 Summary of Existing and Planned Sources of Water

DWA's sources of supply used in 2025 are summarized in Table 6-22. DWA's anticipated future supplies are shown in Table 6-23.

Table 6-22. DWR 6-8R Actual Water Supplies

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume (AFY)	Water Quality
Groundwater	Indio Subbasin[1]	32,222	Drinking water
Surface water	Chino Creek	18	Non Potable
Surface water	Snow & Falls Creek	1,664	Non Potable
Surface water	Whitewater River	314	Non Potable
Recycled water	DWA WRF[2]	142	Recycled water
Total		**34,362**	

[1] Surface water conveyed to downstream replenishment basins is subtracted from the groundwater supply total to avoid double counting water that is recharged and pumped in the same year.

[2] Water recycling plant was offline from 1/1/2025 through 12/1/2025; plant was returned to service on 12/2/2025. Recycled water customers were served potable water from 1/1/2025 through 12/1/2025.

Table 6-23. DWR 6-9 R Projected Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2030	2035	2040	2045	2050
Groundwater	Indio Subbasin[1]	31,614	28,626	29,294	30,020	30,748
Recycled water	DWA WRF	3,413	3,413	3,413	3,413	3,413
Surface water	Chino Creek, Snow Creek, Falls Creek, Whitewater River	2,361	6,000	6,000	6,000	6,000
Total		**37,388**	**38,039**	**38,707**	**39,433**	**40,161**

[1] Surface water conveyed to downstream replenishment basins is subtracted from the groundwater supply total to avoid double counting water that is recharged and pumped in the same year.

6.6.2.10 Special Considerations

Although groundwater is a relatively resilient water supply with respect to climate change, long periods of drought/dry weather may reduce the availability of imported water for groundwater recharge. Climate change may directly impact the availability of imported water to DWA in future years. Potential effects of a hotter and drier climate could also increase water demand within the Coachella Valley. A more detailed discussion of potential climate change impacts is presented in Chapter 3 of the RUWMP.

6.6.3 Energy Use

DWA compiled the total energy use for water management activities during calendar year 2024, the most recent year for which complete energy usage data were available. DWA used the Total Utility Approach to estimate the energy intensity of its water management operations. The results are shown in Table 6-24 and Table 6-25.

Table 6-24. Energy Use for Water Management

Category	Usage during Calendar Year 2024	Notes
Potable water (wells, boosters, streams, reservoir sites)	23,075,285 kwh	
Recycled water	1,821,996 kwh	1,075,193 kwh of this amount was generated from solar
Hydropower production	4,581,038 kwh	2,002,601 should be credited to CVWD 2,578,437 should be credited to DWA
Solar production	1,615,470 kwh	

Table 6-25. DWR O-1B Energy Intensity Reporting

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	1/1/2024	**Urban Water Supplier Operational Control**		
End Date	12/31/2024			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AF	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		29,546	0	29,546
Energy Consumed (kWh)		23,075,285	-2,578,437	20,496,848
Energy Intensity (kWh/volume)		781.0	0.0	693.7
Quantity of Self-Generated Renewable Energy				
1,615,470	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Combination of Estimates and Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption records maintained by the agency.				
Narrative				
The agency uses energy for groundwater production from wells, pumping at booster stations from lower pressure zones to higher pressure zones, and treatment processes.				

6.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability that compares total projected water use with expected water supply over the next 25 years in five-year increments, including a single dry year and multiple dry years. Reliability is a measure of a water system's expected success in managing water shortages. This chapter presents the reliability assessment for DWA's service area.

6.7.1 Reliability Overview

DWA's goal is to deliver a reliable and high-quality water supply to its customers, even during dry periods. DWA's direct sources of urban potable water supply are local groundwater and surface water. Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions. Potential constraints on these supplies that could affect reliability are discussed in Chapter 3 of this RUWMP.

The "normal year" represents the average water supply conditions and availability to DWA. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to DWA. Though DWA's vast groundwater in storage is not constrained in dry years, this RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. DWA's water use data from the last 20 years was evaluated to understand demand response among its customer base. For DWA, the single dry year demand represents 103 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to DWA for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record, it represents a more accurate demand response to drought conditions due to conservation programs

implemented in recent years by DWA. For DWA, the multiple dry year demand increases by two percent year-over-year to 110 percent of normal conditions.

Table 6-26 summarizes the water years used as the basis for urban water supply reliability assessment and the percent of average supply available for each base year.

Table 6-26. DWR 7-1R Basis of Water Year Data

	Available Supply if Year Type Repeats	
Year Type	**Base Year**	**Percent of Average Supply**
Average Year	2015-2024	100%
Single-Dry Year	2021	103%
Consecutive Dry Years 1st Year	2020	102%
Consecutive Dry Years 2nd Year	2021	104%
Consecutive Dry Years 3rd Year	2022	106%
Consecutive Dry Years 4th Year	2023	108%
Consecutive Dry Years 5th Year	2024	110%

6.7.2 Water Service Reliability Assessment

Water has played, and will continue to play, a vital role in the development of the Palm Springs area, a world-renowned resort destination community. A reliable, abundant, high-quality water supply is the most important factor in the economic sustainability and growth of the Palm Springs area. DWA's goal is to provide its customers with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible manner.

The reliability of the groundwater supply is dependent on reliable sources to replenish water extracted from the groundwater basin. To ensure a safe and reliable supply, regional water suppliers collaborate to manage groundwater via the Indio Subbasin Alternative Plan and Mission Creek Subbasin Alternative Plan. Since 1973 and 2002, respectively, DWA has been using Colorado River water exchanged for SWP water to replenish groundwater in the Indio and Mission Creek Subbasins. While DWA is susceptible to the uncertainty of supply and delivery from the SWP and the Sacramento-San Joaquin Delta due to legal, environmental, and climatic restrictions, the Coachella Valley agencies' efforts in regional management of the groundwater basin have helped address long-term overdraft. Therefore, water supply reliability is expected to be good and fully reliable.

Groundwater storage within Indio and Mission Creek Subbasins will be used in dry years to support potential differences between demands and supply. The groundwater basin has a capacity of approximately 29.8 MAF. It is capable of meeting the water demands of DWA for extended periods during normal, single-dry and multiple-dry year conditions.

Due to DWA's reliance on local groundwater sources and its ability to secure imported water for storage within the Indio and Mission Creek Subbasins, short-term drought situations have historically had a negligible effect on DWA's ability to supply water to its customers. DWA will continue to request the maximum allocation from the SWP and will obtain and store as much available water as possible to prevent supply deficiencies and to preserve the groundwater basin.

The majority of DWA's service area depends exclusively on groundwater, while the northwestern portion of the service area is supplied by a mix of groundwater and surface water. Since the surface water sources are fed with water originating in the local mountains, they are inherently more susceptible to seasonal variation and drought conditions. A small group of relatively isolated single-family, minimally-landscaped residences (i.e., Snow Creek Village) are supplied solely with surface water. If delivery of surface water to these residences was interrupted or reduced, demand could be met in the interim through stored water in reservoirs dedicated to those areas. In the unlikely event that water became unavailable in those areas, a water supply would have to be trucked in from elsewhere within DWA's water system.

DWA's water supply is not directly affected by short-term fluctuations in hydrology (i.e., drought conditions), since approximately 95 percent of DWA's water supply consists of groundwater and recycled water. The challenges that DWA faces are long-term in nature, as opposed to short-term shortage situations, due to the large supply of stored groundwater. While there is sufficient groundwater in storage to weather short-term droughts, it will not sustain the current population indefinitely due to the limited quantities of natural recharge. Continued water importation, water recycling, water conservation, and long-range planning are necessary to meet current and future water demands without depleting the groundwater in storage. The following tables provide DWA's projected water supplies and demands in a normal year, single dry year, and multiple dry years.

6.7.2.1 Emergency Preparedness

DWA's water system has the potential to be affected by earthquakes, power outages, floods, and other potentially devastating occurrences; therefore, emergency preparedness planning is a key part of DWA's operations. DWA has coordinated internally with all departments and with other local entities to formulate an Emergency Response Plan. The Emergency Response Plan outlines specific courses of action DWA personnel will follow in the event of a disaster or a breach in facility security. In the Emergency Response Plan, all areas of emergency preparedness are addressed, with emphasis on employee response and delivering safe water to DWA's customers as quickly as possible.

Additionally, DWA's 26 aboveground steel reservoirs are equipped with earthquake valves to conserve stored water supply in the event of a pipeline break resulting from an earthquake. Aging pipelines are also replaced as part of an ongoing mainline replacement program to further enhance the reliability of the system. All new facilities are designed taking into consideration the potential for earthquakes, power shortages, and flooding potential.

6.7.2.2 Normal Year

The anticipated supplies and demands during a normal year are shown in Table 6-27. This analysis does not include WSCP use reduction in a normal year. The supply and demand comparison for the normal year results in no shortages.

Table 6-27. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	**37,388**	**38,039**	**38,707**	**39,433**	**40,161**
Groundwater	31,614	28,626	29,294	30,020	30,748
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY) From DWR Table 4-3R	**37,388**	**38,039**	**38,707**	**39,433**	**40,161**
Potable Water Demand	33,542	34,194	34,861	35,588	36,315
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

6.7.2.3 Single Dry Year

The single dry year represents a "worst-case" scenario for demand response, jumping to 103 percent of normal conditions in a single year. Due to the reliability of the region's groundwater basin, water supply availability during a single-dry year scenario was assumed to be similar to the average year scenario. The anticipated supplies and demands during a single dry year are shown in Table 6-28. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 6-28. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	**38,632**	**39,305**	**39,995**	**40,745**	**41,498**
Groundwater	32,858	29,892	30,582	31,332	32,085
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**38,632**	**39,305**	**39,995**	**40,745**	**41,498**
Potable Water Demand	34,787	35,459	36,149	36,900	37,652
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

6.7.2.4 Multiple Dry Years

The anticipated supplies and demands during a multiple-dry year period are shown in Table 6-29.Similar to the single dry year, the multiple dry year urban water supply reliability is 100 percent. In five consecutive dry year conditions, there are no shortages. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. Demand is expected to be offset, however, in the second through fifth years of a consecutive dry year period due to efficiencies realized from the implementation of DWA's WSCP. This reliability forecast conservatively assumes that the WSCP will reduce water use by three percent in the second through fifth years of a multiple year drought.

Table 6-29. DWR 7-4R Multiple Dry Years Supply and Demand Comparison (AF)

	2030	2035	2040	2045	2050
First Year					
Supply Totals (AFY)	**38,582**	**39,247**	**39,927**	**40,668**	**41,411**
Groundwater	34,723	35,387	36,068	36,809	37,551
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**38,582**	**39,247**	**39,927**	**40,668**	**41,411**
Potable Water Demand	34,737	35,401	36,082	36,823	37,565
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**

	2030	2035	2040	2045	2050
Second Year					
Supply Totals (AFY)	**38,284**	**38,943**	**39,618**	**40,354**	**41,090**
Groundwater	35,470	36,148	36,842	37,597	38,354
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**38,284**	**38,943**	**39,618**	**40,354**	**41,090**
Potable Water Demand	34,438	35,097	35,773	36,508	37,244
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	1,046	1,065	1,083	1,104	1,124
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	**39,011**	**39,683**	**40,372**	**41,121**	**41,872**
Groundwater	36,218	36,908	37,616	38,386	39,158
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**39,011**	**39,683**	**40,372**	**41,121**	**41,872**
Potable Water Demand	35,166	35,837	36,526	37,275	38,026
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	1,066	1,085	1,104	1,125	1,146
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	**39,739**	**40,423**	**41,125**	**41,888**	**42,653**
Groundwater	36,966	37,669	38,390	39,175	39,961
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**39,739**	**40,423**	**41,125**	**41,888**	**42,653**
Potable Water Demand	35,893	36,578	37,279	38,043	38,808
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	1,087	1,105	1,125	1,146	1,167
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fifth Year					
Supply Totals (AFY)	**40,467**	**41,164**	**41,878**	**42,656**	**43,435**
Groundwater	37,714	38,430	39,164	39,963	40,764
Recycled Water	3,413	3,413	3,413	3,413	3,413
Surface Water	2,361	6,000	6,000	6,000	6,000
Demand Totals (AFY)	**40,467**	**41,164**	**41,878**	**42,656**	**43,435**
Potable Water Demand	36,621	37,318	38,032	38,810	39,589
Non-Potable Water Demand	3,846	3,846	3,846	3,846	3,846
Surplus/(Shortfall) (AFY)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	1,107	1,126	1,146	1,167	1,189
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

[1] 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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

DWA implements many programs to maximize the water resources available to meet demands, including but not limited to groundwater replenishment with imported water, direct use and recharge of recycled water, and comprehensive water conservation practices such as landscaping ordinances, outreach and education. The groundwater replenishment programs establish a comprehensive and managed effort to reduce and eliminate overdraft of local groundwater resources. These programs allow DWA and its partner agencies to maintain the groundwater basin as the primary water supply and to recharge the groundwater basin as other supplies are available and needed to meet existing and projected demands.

6.7.3 Drought Risk Assessment

The Drought Risk Assessment (DRA) is based on projections of demand and available supply for the next five years. Demands are expected to increase, but conservation messaging and programs can dampen a demand response among existing customers due to critically dry conditions, if needed. For DWA, the multiple dry year demand increases by two percent year-over-year from 102 to 110 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands from existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify a potential shortage are described in DWA's WSCP (see Appendix C). This DRA conservatively assumes that the WSCP will reduce water use by three percent in the second through fifth years of a multiple year drought. Based on the reliability analysis presented above, the supply of groundwater is fully reliable in a five-year drought scenario, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 6-30. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 6-30. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	35,049
	Total Supplies (AFY)	35,049
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/(Shortfall)	**0**
	Resulting Percent Use Reduction from WSCP Action	**0%**
2027	Gross Water Use (AFY)	35,736
	Total Supplies (AFY)	35,736
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	936
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**3%**

2028	Gross Water Use (AFY)	36,423
	Total Supplies (AFY)	36,423
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	954
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**3%**
2029	Gross Water Use (AFY)	37,111
	Total Supplies (AFY)	37,111
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	972
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**3%**
2030	Gross Water Use (AFY)	37,768
	Total Supplies (AFY)	37,798
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	990
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**3%**

[1] 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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

6.8 Water Shortage Contingency Plan

DWA has developed a WSCP that outlines its strategy for assessing and responding to potential water shortages. Building on the region's overall high water supply reliability, the WSCP prepares for risks such as prolonged drought, infrastructure failure, regulatory restrictions, contamination, and other emergencies. It establishes procedures for annual water supply and demand assessments, coordination among regional water agencies, and use of six standardized shortage levels that range from minimal conservation requirements to severe, mandatory restrictions when more than 50% supply reduction occurs.

To manage shortages, the WSCP details a suite of supply augmentation methods, demand reduction actions, operational adjustments, communication protocols, and enforcement mechanisms. Actions escalate by shortage level and may include outdoor irrigation limits, reduced water budgets, expanded public outreach, drought surcharges, mandatory rationing, and prohibitions on potable outdoor use. The WSCP also describes financial implications, monitoring and reporting requirements, seismic risk considerations, and emergency response coordination with regional partners. It sets forth legal authorities supporting plan implementation and provides the procedures for adoption, future amendments, and public engagement.

The DWA WSCP is included in Appendix C of this RUWMP.

6.9 Demand Management Measures

This section describes the Demand Management Measures (DMMs) implemented by DWA to help increase water use efficiency.

6.9.1 Existing Demand Management Measures

As part of its comprehensive water conservation program, DWA has implemented the DMMs described in the following sections. DMMs refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a reliable reduction in water demand.

6.9.1.1 Water Waste Prevention Ordinances

On March 1, 2016, DWA adopted Ordinance No. 65: Ordinance of Desert Water Agency Establishing a Water Conservation Plan and Restricting the Use of Water During Threatened or Existing Water Shortage Conditions, referred to herein as Ordinance No. 65, a copy of which is attached to DWA's WSCP.

Ordinance No. 65 was adopted by DWA in response to the continued state of emergency issued by Governor Brown resulting from ongoing severe dry conditions throughout California. The provisions of Ordinance No. 65 were developed in accordance with the emergency regulations for urban water suppliers due to continuing water shortage conditions, adopted by the SWRCB in 2015. Water use prohibitions set forth in DWA's Ordinance No. 65 are summarized as follows:

- Washing hardscape, such as driveways, parking lots, and walkways;
- Vehicle washing without the use of buckets and shut off nozzles on hoses;
- Serving water in restaurants unless requested;
- Outdoor irrigation between 7 AM and 7 PM, and on specified days of the week;
- Use of non-recirculating fountains;
- Outdoor irrigation of newly constructed homes and buildings without drip or micro-spray systems;
- Use of potable water to irrigate turf within street medians or public street rights-of-way.

Additionally, DWA has water waste reporting mechanisms in place by phone and on its website at www.dwa.org/waterwaste.

DWA is in the process of developing an updated ordinance to reflect the updated WSCP.

6.9.1.2 Metering

DWA meters 100 percent of the service connections within its service area and will continue to meter all future new connections. Additionally, DWA is converting to an advanced metering infrastructure (AMI) program, with 100 percent of its customer meters outfitted with AMI. DWA is in the process of constructing a fixed network component and developing a customer-facing portal.

6.9.1.3 Conservation Pricing

DWA does not implement conservation or tiered rates for water consumption. Water charges consist of monthly water rates based on the meter size and a flat water rate per each 100 cubic feet. DWA adopted a new rate structure in July 2025 with updated rates for recycled water and fees for water use violations. Additionally, DWA has a drought rate surcharge that is triggered by a drop in overall water consumption and a vote of the Board of Directors. The surcharge applies to every unit of water.

While DWA has not implemented conservation pricing, it has updated bills with graphics that more easily allow a customer to compare their current use to prior use and to understand how their use compares to other customers with meters the same size. This information is provided to increase water conscious behavior.

6.9.1.4 Public Education and Outreach

DWA implements several public information programs, with its website as a primary communication tool. The purpose of these programs is to educate the public on conservation programs being planned and/or implemented by DWA, as well as educational tips that customers can use to lower their water usage.

DWA has a large section on its website (**https://dwa.org/save/**) devoted to water conservation and education. The webpage provides information on all of the agency's conservation programs, including conservation regulations, rebate programs, information on efficient landscaping, free conservation kits and resources, and other water saving tips.

DWA offers a free conservation kit where customers receive water saving garden hose nozzle, dual-spray swivel kitchen faucet aerator, toilet leak detection dye, moisture meter for indoor plants, and bubble-spray faucet aerator.

DWA also has an advertising budget, is active on social media and invests in the regional CV Water Counts conservation outreach program. Part of the regional program also includes a "Water Counts Academy," which offers local residents an opportunity to learn more about water in our community.

DWA offers educational presentations by its staff that can be requested by local schools.

DWA conducts water audits for large water users, such as homeowners associations and commercial properties, at no charge. Audits can be scheduled virtually. Water audits are aimed at providing customers with an optimum irrigation schedule, identification of system deficiencies, and suggestions for improving system efficiency.

DWA contracts with Inland Southern California United Way to provide the Help2Others Assistance Program, which assists eligible residential customers to avoid shutoff due to non-payment. The program is funded by DWA through non-rate revenue to assist their customers.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (**https://cvwatercounts.com/**) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts Program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact.

6.9.1.5 Programs to Assess and Manage Distribution System Real Losses

DWA informs customers of possible leaks at their properties when there is excessive consumption compared to prior use. DWA meters all customer connections and water used for construction purposes through fire hydrants. DWA also keeps records of water used for other purposes, such as city street washing and firefighting. These are all components of annual Water Loss Reports submitted to the SWRCB.

DWA funds an aggressive water main replacement program. Leaks are repaired as soon as they are discovered in order to prevent damage and waste of water. All leaks are tracked on maps and through a pipeline inventory computer program. Mains with a history of leaks are prioritized and budgeted for replacement.

In addition, DWA has instructions and videos on its website (at **www.dwa.org/leaks**) showing customers how to check for leaks on their properties by turning off all water fixtures and reading their water meters.

6.9.1.6 Water Conservation Program Coordination and Staffing Support

DWA's Conservation Department is responsible for coordinating conservation outreach and program management. The Public Affairs Department, in consultation with the Conservation Department, creates and distributes digital and printed materials, such as bill inserts and fliers that educate and inform the public about water conservation methods and current incentives and programs. Staff also manage DWA's

conservation programs, including rebates, school curriculum, public educational programs, and continuous dialog with community stakeholders.

6.9.1.7 Other Demand Management Measures

DWA has several rebate programs in place to encourage installation of water-saving fixtures and features. DWA's Smart Irrigation Controller program has been implemented since 2011 and has resulted in the installation of 538 Smart Irrigation Controllers since 2022. Smart Irrigation Controllers allow customization of watering times based on climate, temperature, and evapotranspiration rates. DWA currently offers up to a $250 rebate for Smart Irrigation Controllers that include WiFi models and weather sensors.

DWA launched its turf rebate program in August 2014. The program was extremely popular during the recent droughts. Since 2022, DWA approved rebates for 799 grass removal projects for homeowners associations, businesses and residents for with a more water savvy option. The program continues to evolve as demands and community expectations shift. One key example is allowing backyard and private areas to be converted through the program. Additionally, though it was not allowed at the inception of the program, artificial turf is now permitted. DWA currently offers a turf rebate of $2 per square foot, and the City of Palm Springs offers its residents a $1 match per square foot, resulting in up to $3 per square foot for Palm Springs customers.

In 2017, DWA began an efficient nozzle program and has provided rebates for more than 15,882 efficient nozzles since 2022. The efficient rotary nozzles replace traditional spray sprinklers for grass areas. Customers can also replace water intensive adjustable bubblers for pressure compensating bubblers for trees and shrubs. DWA offers up to a $7 rebate per rotating spray head and fixed-rate bubblers.

In September of 2019, DWA launched a residential washing machine incentive to replace its popular toilet rebate program. However, DWA brought the rebate program back in September 2023 with updated requirements, and the rebate is currently set up to $150 for 1.1 GPF or dual flush with 1.1/1.6 GPF or less. Since 2022 DWA has provided incentives for 520 washing machines. DWA currently offers up to a $250 rebate on high-efficiency washing machine.

6.9.2 Implementation of DMMs

DWA is committed to conservation and water use efficiency to balance its sustainable water supply, and plans to continue its conservation program during the next five years. The details of implementation over the past five years are discussed in the previous sections for the applicable DMMs.

DWA plans to maintain, or further reduce, its per capita water use through the continued implementation of its existing and potential future water conservation programs.

6.10 Plan Adoption, Submittal, and Implementation

This section includes a discussion of DWA's process for adopting, submitting, and implementing the RUWMP and DWA's WSCP.

6.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. DWA issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and DWA's WSCP. DWA provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 6-31, and the notification letters are included in Appendix A of the RUWMP. DWA provided an additional notice to the cities and counties with the time and date of the public hearing.

Table 6-31. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
Cathedral City	Yes	Yes
Palm Springs	Yes	Yes
County		
Riverside	Yes	Yes

Prior to the public hearing, DWA provided notice to the public through its website and published announcements of the public hearing in the newspaper on two occasions before the hearing. Copies of the proof of publication are included in Appendix A.

6.10.2 Public Hearing and Adoption

DWA held a public hearing on June 2, 2026, located at Desert Water Agency, 1200 S Gene Autry Trail, Palm Springs, CA 92264 to hear public comment and consider adopting this RUWMP and DWA's WSCP. As part of the public hearing, DWA provided information on DWA's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and DWA's WSCP took place before the adoption of the Plans, which allowed the opportunity to modify the RUWMP and DWA's WSCP in response to public input. After the hearing, the Plans were adopted as prepared or as modified during the hearing.

The adoption resolution for the RUWMP and DWA's WSCP are included in Appendix F.

6.10.3 Plan Submittal

DWA will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to the Cities of Cathedral City and Palm Springs and the County of Riverside, which DWA supplies water to, within 30 days of adoption.

DWA is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

6.10.4 Public Availability

The RUWMP and DWA's WSCP will be available for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at DWA's office (see address below) during regular business hours.

Desert Water Agency
1200 S Gene Autry Trail
Palm Springs, CA 92264

The final documents will also be posted on DWA's website at www.dwa.org/uwmp.

6.10.5 Amending an Adopted UWMP or WSCP

If DWA identifies the need to amend the adopted RUWMP or DWA's WSCP, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended RUWMP.

Chapter 7 City of Indio

7.1 Introduction

This chapter describes information specific to the City of Indio (hereafter referred to as Indio) and its water use efficiency programs. As an urban water supplier, Indio is required to prepare a UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies, and this chapter contains information specific to Indio.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWMP.

7.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 7.1 - Introduction and Lay Description.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 7.2 - Plan Preparation.** Provides information on Indio's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 7.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and Indio's organizational structure and history.
- **Section 7.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within Indio's service area.
- **Section 7.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes Indio's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 7.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to Indio. Includes discussion of potential recycled water uses and supply availability.
- **Section 7.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of Indio's water supply and projects the reliability for at least the next 20 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 7.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides Indio's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 7.9 - Demand Management Measures.** Describes Indio's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 7.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by Indio to adopt and submit the UWMP and to make it publicly available. Includes a discussion of Indio's plan to implement the UWMP.
- **Appendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

7.1.2 UWMPs in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 2 of the RUWMP.

7.1.3 UWMPs and Grant or Loan Eligibility

Indio has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans.

7.1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The participating agencies' approach to demonstrating reduced reliance on the Delta is described in Chapter 3 of the RUWMP. The analysis of reduced Delta reliance is provided in Appendix B.

7.2 Plan Preparation

This section provides information on Indio's process for developing this RUWMP, including efforts in coordination and outreach.

7.2.1 Plan Preparation

In accordance with the CWC, urban water suppliers must develop a UWMP every five years. An "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. Indio supplies approximately 19,880 AFY to 23,974 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

7.2.2 Basis for Preparing a Plan

Indio is a retail public water supplier that meets the definition of an urban water supplier with almost 24,000 municipal water service connections in 2025. Indio maintains a single Public Water System (PWS) with information shown in Table 7-1.

Table 7-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA3310020	Indio Water Authority	23,974	20,249
Total		**23,974**	**20,249**

7.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participation in an area wide, regional, watershed, or basin-wide urban water management plan. Indio is participating in the Coachella Valley RUWMP.

7.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

7.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. Indio is a retail agency and does not currently sell wholesale water. Table 7-2 shows Indio's supplier identification information used throughout this report.

Table 7-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of measure used in UWMP	AF

7.2.6 Coordination and Outreach

Indio does not receive water from a wholesale supplier and meets all its water demands through its own supplies. Indio does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

7.3 Service Area Description

This section includes a description of the Indio service area including climate, population, and demographics.

7.3.1 General Description

Incorporated in 1930, Indio was the first city in the Coachella Valley. Indio encompasses approximately 38 square miles with a SOI that adds approximately 22 square miles north of Interstate 10. The existing land uses include commercial, limited industrial, and residential. The majority of land use is residential, varying in density from equestrian and country estates to high-density multi-family dwellings. The proposed future land uses within the SOI include open space, residential, resource recovery, specific plans (assumed mixed use), business park, and a small amount of community commercial.

The City of Indio's water department is responsible for ensuring a safe and reliable means of water supply to City residents within its water department's service area. The department operates under the direction of the City's executive leadership and City Council.

7.3.1.1 Domestic Water Delivery

Since the establishment of Indio, service connections have increased from approximately 12,100 to over 25,000 active meter accounts, with the majority of the new growth occurring north of Interstate 10. In 2025, Indio supplied approximately 20,000 AF of water to businesses and residents. As one of the fastest growing municipal utilities in the Coachella Valley, Indio is committed to maintaining a sustainable water supply for its residential and commercial customers.

Indio extracts groundwater to meet the needs of its existing customers. The groundwater is drawn from the Indio Subbasin and is delivered to the service area via a pressurized distribution system of 347 miles of pipe supplied by 20 active wells. Indio also has emergency intertie connections with CVWD. An intertie with Myoma Dunes Water Agency is also planned.

Since 2005, Indio has established active water conservation, water reuse, and groundwater recharge planning efforts to ensure adequate water availability and system capacity to meet the growing needs of the City. These planning efforts include: residential and commercial landscape and irrigation upgrade rebates, water audits, water conservation kits, washing machine and toilet rebates, water waster mobile app and hotline, budget-tiered rate structure, water conservation workshops, water misuse program, and a Memorandum of Understanding between Indio and VSD to collaborate in the construction of capital improvement projects that support groundwater recharge efforts.

7.3.2 Service Area Boundary

Indio's service area boundary is shown in Figure 7-1.

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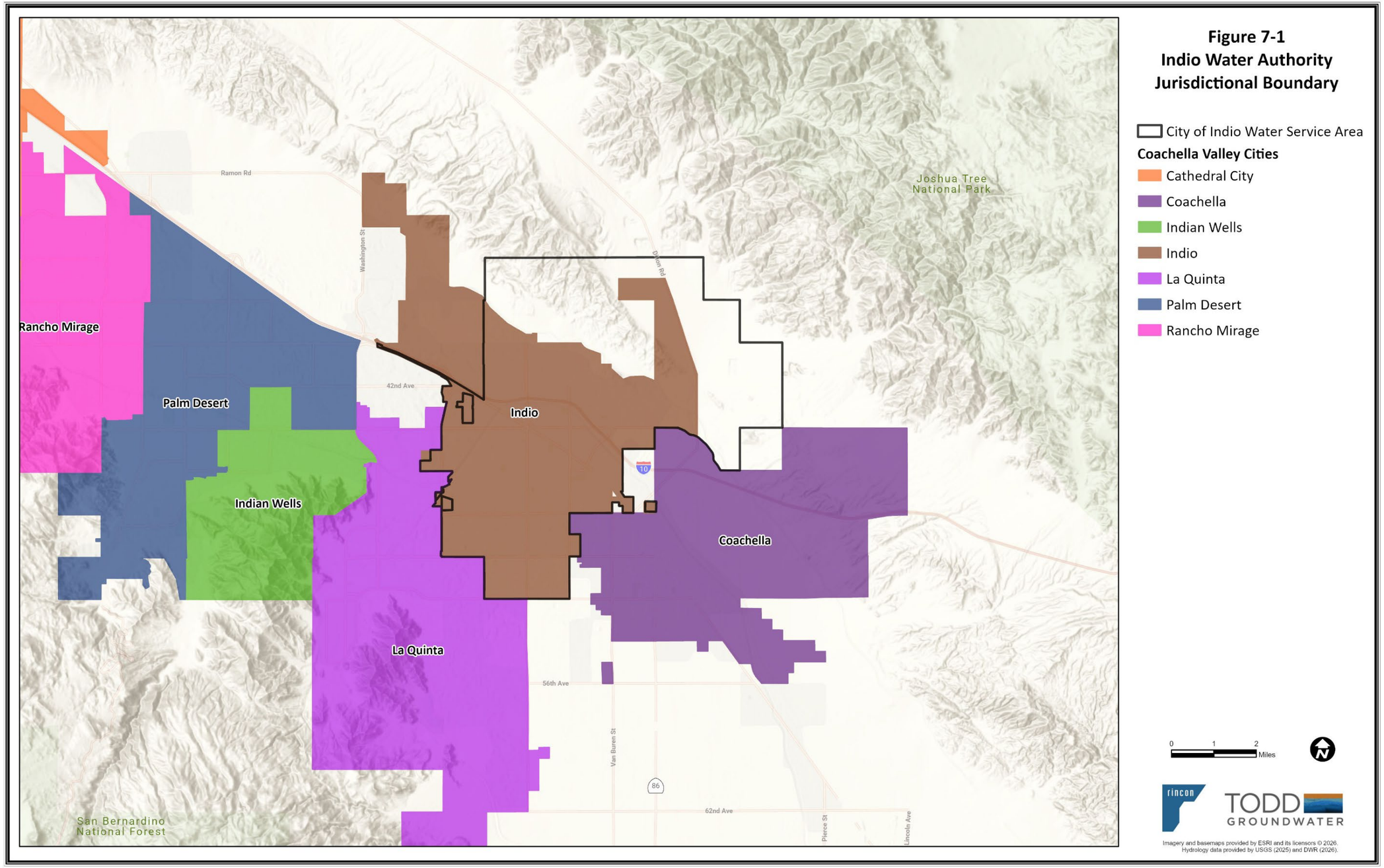


Figure 7-1. Indio Service Area Boundary

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7.3.3 Service Area Climate

The climate of the Coachella Valley is arid characterized by low annual rainfall, low humidity, high summer temperatures, abundant sunshine, and relatively mild winters. The average summer high temperature in Indio is 103 degrees Fahrenheit (°F); the average winter low temperature is 43 degrees F. Precipitation typically occurs during the winter months with an annual mean rainfall of approximately 3.9 inches (in).

Data from the climate station in Indio represents climate in the Indio service area. Monthly average high temperature reaches 106 degrees and monthly average low temperatures are 39 degrees. Monthly climate data are summarized in Table 7-3 and are shown in Figure 7-2.

Table 7-3. Monthly Average Climate Data (Indio)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	72	75	82	87	93	103	106	106	101	90	80	65	88
Average Minimum Temperature (F)	42	45	52	58	63	70	76	75	69	59	49	39	58
Average Total Precipitation (in)	0.5	0.6	0.7	0.3	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.7	3.8
Evapotranspiration, ETo (in)	2.7	3.6	6.0	7.7	9.2	9.8	9.7	9.1	7.2	5.2	3.3	2.3	75.7

Notes:
Data from California Irrigation Management Information System (CIMIS) Station 200, Indio 2. Data from May 2006 through December 2020

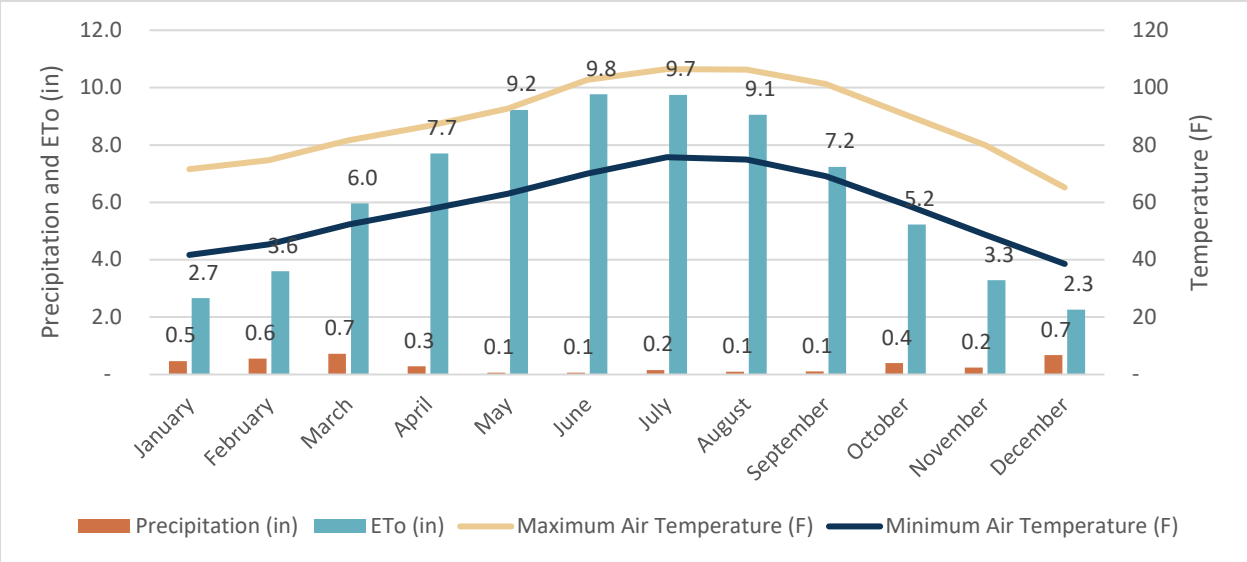


Figure 7-2. Monthly Average Climate Data

A discussion of the potential impacts of climate change on the region is included in Chapter 3 of the RUWMP.

7.3.4 Service Area Population and Demographics

This section describes Indio's service area that is located entirely within the City of Indio. Current and projected demographics within Indio's service area were developed by SCAG as part of the 2024 Regional Transportation Plan referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including

the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

The growth forecasts in SCAG's Connect SoCal plan included estimates of population, households, and employment through 2050. The 2024 Connect SoCal update projects that the population of Riverside County will increase by approximately 50% through 2050. The 2024 update also notes that the region's population decline between 2019 and 2023 and attributes this decrease to COVID-19 pandemic impacts. Traffic and visitation declined during the pandemic, but has recovered to or exceeded pre-pandemic levels in most communities. SCAG notes that the median age is increasing and unpredictable events like the COVID-19 pandemic may cause significant deviations from projected long-term trends.

An important consideration affecting per capita water use in the Coachella Valley is the region's large seasonal population, which is not counted by the federal Census or other demographic data. Due to its mild winter climate and recreational opportunities, Coachella Valley is a popular destination for "snowbirds," people whose primary residence is outside the Valley but may live there for three to six months during the winter period. In addition, there are people who maintain second homes in Coachella Valley and use them for shorter periods of time throughout the year to participate in various sports, entertainment, and recreational activities. The visitor population also makes use of Coachella Valley's hotel/motel/time-share resorts as well as mobile home parks. These properties use water year-round to maintain outdoor landscapes even when not occupied during the summer months.

To estimate service area population, both permanent residents and seasonal residents were estimated. Estimates of the permanent population were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 7-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). Household totals for 2025 were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within Indio's service area using Census data. The seasonal population was then estimated by dividing the permanent population totals by the occupancy rate from the Census for each jurisdiction to determine the number of housing units in Indio's service area, and multiplying the total number of housing units by the difference between the average vacancy rate for California and the vacancy rate of each jurisdiction in Indio's service area. This resulting number was used for the seasonal population estimate.

The current and projected population within Indio's service area is presented in Table 7-4.

Table 7-4. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
Permanent	81,756	95,266	108,776	114,393	120,010	125,627
Seasonal	12,218	13,869	15,521	16,043	16,566	17,089
Total	**93,974**	**109,136**	**124,297**	**130,437**	**136,576**	**142,716**

A summary of demographic information for the City of Indio is presented in Table 7-5.

Table 7-5. City of Indio Demographic Data

Age Distribution		Race/Ethnicity Distribution		Income and Household Size		Household Income Distribution	
Age	**Percent**	**Race/Ethnicity**	**Percent**	**Parameter**	**Amount**	**Income**	**Percent**
19 years and under	23.8%	White	34.7%	Median household income	$74,774	$24,999 and under	23.4%
20-34 years	19.7%	Black	4.9%	Average household income	$93,308	$25,000-$49,999	23.7%
35-54 years	21.7%	Native American	0.0%	Per capita income	$33,704	$50,000-$74,999	18.8%
55-64 years	12.1%	Asian/Pacific Islander	1.7%	Percent of Population Below Poverty Level	11.3%	$75,000-$99,999	11.6%
Over 65 years	22.7%	Hispanic	57.2%	Average Household Size	2.86	$100,000-$149,999	12.4%
		Other	1.4%			$150,000 and above	10.2%

Notes: Totals may not equal 100% due to rounding errors.
Reference: American Community Survey 2014-2019 (United States Census Bureau, 2021)

7.3.5 Land Uses within Service Area

Existing land uses within the Indio water service area are a mixture of residential, commercial, industrial, institutional, and open space. Land use within Indio's service area are subject the jurisdiction of the City of Indio and Riverside County. During its preparation of regional growth projections, SCAG gathered input and coordinated outreach with both jurisdictions.

Indio has coordinated with these land use planners to align its RUWMP growth and demand projections with local plans.

7.4 Water Use Characterization

This section describes current and projected water usage and presents projected future demands within Indio's service area. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

7.4.1 Non-Potable Versus Potable Water Use

Indio produces all its water supplies from the Coachella Valley Groundwater Basin, Indio Subbasin, which is continuously replenished through a variety of CVWD and DWA water supply projects and programs. The Indio Subbasin is regionally managed by the six participating agencies in this RUWMP.

Currently, Indio does not produce or use recycled water or raw water in its service area. Potential future recycled water supply would be used for groundwater replenishment and would not be delivered to customers.

7.4.2 Water Use by Sector

Water use is broken down by sector. The use sectors are summarized in Table 7-6. Demand projections contain an inherent level of uncertainty and are intended to provide a general sense as to water supply requirements for the future. Demand projections are dynamic, often changing as a result of economic, political, and environmental pressures. Several factors can affect demand projections, including land use revisions, regulations, consumer choice, economic conditions, transportation needs, highway construction,

environmental factors, conservation programs and plumbing codes. These factors can impact not only the amount of water needed, but also the timing and location of when and where it is needed.

Past experience in the City of Indio has indicated that population growth is the most influential factor in determining water demand projections. During the recent economic recession, there was a major downturn in development and new construction, consequently reducing projected demands for water. The projections do account for Indio's current water conservation efforts, which will continue to reduce water demand.

Table 7-6. Water Use Sectors

Sector	Description
Single-Family Residential	A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling.
Multi-Family Residential	Multiple dwelling units contained within one building or several buildings in a single complex.
Commercial/ Industrial /Institutional	A water user that provides or distributes a product or service.
Landscape	Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.
Other	Other metered water use that is not assigned a specific billing category, such as metered construction use, hydrant flows for firefighting, etc. This includes distribution system water losses.

Indio does not sell water to any other agencies or districts and there are no plans to wholesale municipal water in the future. Indio does not use its potable water supply for any purpose other than domestic water.

7.4.2.1 Distribution System Losses

Distribution system water losses are the real and apparent water losses from the water distribution system and the supplier's storage facilities, up to the point of customer consumption. Indio has completed annual water audits using the AWWA Water Audit Method. The results from the five most recent audits are summarized in Table 7-7. The audits are included in Appendix E of the RUWMP.

Table 7-7. DWR 4-4R 12 Month Water Loss Audit Reporting

Report Period Start Date		Volume of Water Loss (AFY)
MM	YYYY	
07	2021	1,318
07	2022	866
07	2023	911
07	2024	967
07	2025	993

The real water loss performance standard for Indio's distribution system is 18.4 gallons per connection per day, a 42 percent reduction from the State estimated baseline of 31.9 gallons per connection per day. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. Indio's total water loss currently averages about 33.7 gallons per connection per day, with the most recent reporting year averaging 22.6 gallons of real water loss per connection per day. Table 7-7 shows the City's progress towards the 2028 Water Loss Standard. The 2025 water use is summarized in Table 7-9.

Table 7-8 DWR 4-6R Progress Towards 2028 Water Loss Standard

		Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
Public Water System ID #	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss	Number of Units	Volume of Total Real Loss (from AWWA Water Loss Audit)	Real Water Loss Per Unit per Day
CA3310020	Yes	18.4	Gallons per Connection per Day (GPCD)	26,286	664	22.6
		Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
Public Water System ID #	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit)	Apparent Water Loss Per Unit per Day
CA3310020	Yes	11.2	Gallons per Connection per Day (GPCD)	26,286	329	11.2

7.4.2.2 Summary of Current Uses

Indio's urban water use for 2020 through 2025 is summarized in Table 7-9.

Table 7-9. DWR 4-1R Actual Demands for Water (AFY)

Use Type	Additional Description	Level of Treatment When Delivered	2020	2021	2022	2023	2024	2025
Single Family		Potable	11,864	12,121	11,859	11,597	12,130	12,149
Multi-Family		Potable	1,874	1,851	1,847	1,832	1,764	1,775
Commercial/ Industrial /Institutional		Potable	2,541	2,923	3,051	2,853	2,876	2,855
Landscape		Potable	2,244	2,281	2,327	2,266	2,384	2,455
Other	Non-Revenue	Potable	1,367	1,208	1,428	792	1,017	1,015
Total			**19,891**	**20,385**	**20,512**	**19,341**	**20,171**	**20,249**
Note: Non-revenue water is the difference between production and customer billing. It includes losses and authorized, non-billed consumption.								

7.4.3 Demand Forecast

Indio is participating in the update of the Indio Subbasin Alternate Plan being prepared to meet requirements of SGMA. The RUWMP agencies coordinated efforts with demand projections being prepared for the Indio Subbasin Alternative Plan. The demand projection approach included the following steps:

- The projections were based on SCAG's regional growth forecast prepared as part of their Regional Transportation Plan, Connect SoCal 2024. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area (SCAG 2024).
- Additional analysis of vacancy rates was performed to estimated baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time uses..
- Baseline and projected estimates of employment were used to drive future growth in CII demands
- Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to the Indio service area. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.
- Water losses were estimated using water loss audits from the last five years (2020 to 2024).
- Demands were adjusted for the following types of conservation savings:
    - Indoor passive conservation savings from the natural replacement of indoor devices and plumbing fixtures
    - Outdoor conservation savings from the implementation of the Model Water Efficiency Landscape Ordinance (MWELO) and agency-specific requirements for future developments
    - Outdoor conservation savings from turf replacement due to local rebate programs.
    - Outdoor conservation savings from the installation of smart irrigation controllers due to local rebate programs.
    - Outdoor conservation savings from the implementation of California's non-functional turf ban (AB 1572).

The projected municipal demands for Indio's service area are shown in Table 7-10.

Table 7-10. DWR 4-2R Projected Demands for Water

Use Type	Additional Description	Treatment Level	Projected Water Use (AFY)				
			2030	2035	2040	2045	2050
Single Family		Potable	11,894	12,173	12,257	12,382	12,507
Multi-Family		Potable	1,979	2,181	2,272	2,379	2,486
Commercial/ Industrial /Institutional		Potable	2,906	3,005	3,054	3,106	3,158
Landscape		Potable	2,033	2,134	2,279	2,424	2,570
Other		Potable	0	0	0	0	0
Losses	Non-Revenue	Potable	1,125	1,196	1,249	1,303	1,356
Subtotal Potable			**19,938**	**20,688**	**21,111**	**21,594**	**22,077**
Total			**19,938**	**20,688**	**21,111**	**21,594**	**22,077**

7.4.3.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above). The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use) as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings." The model considers these mandates and the average useful life and replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture was based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014)..

Anticipated outdoor water use savings were based on the implementation of the California MWELO which is the standard for outdoor water conservation for the state. The resulting water savings from the MWELO are estimated using an ETAF which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the non-functional turf ban, smart irrigation controllers, and turf replacement. Assembly Bill (AB) 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e., ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect commercial, institutional, and homeowner association owned properties. Indio has rebates in place to encourage water conservation through the installment of smart irrigation controllers and turf replacement. These savings are not considered passive as they are implemented through incentives under conservation programs.

The anticipated passive savings due to these measures are summarized in Table 7-11. These savings have been incorporated into the water demand projections presented in Table 7-10.

Table 7-11. DWR 4-4R Passive Water Savings Projections (AFY)

	2030	2035	2040	2045	2050
Device Replacement	783	1,411	1,812	2,154	2,495
MWELO	288	520	644	767	891
Non-Functional Turf Ban	511	682	682	682	682
Total Passive Savings	**1,583**	**2,613**	**3,138**	**3,603**	**4,068**

7.4.3.2 Total Gross Water Use

Total gross water use (including expected future recycled water use) is shown in Table 7-12.

Table 7-12. DWR 4-3R Total Gross Water Use (AFY)

	2025	2030	2035	2040	2045	2050
Potable and Raw Water (AFY) From DWR Table 4-1R and 4-2R	20,249	19,938	20,688	21,111	21,594	22,077
Recycled Water Demand (AFY) From DWR Table 6-4R	0	0	1,120	1,120	1,120	1,120
Total Water Use	**20,249**	**19,938**	**21,808**	**22,231**	**22,714**	**23,197**

7.4.4 Water Use for Lower Income Households

The SCAG RHNA Housing Need by Income Category is used to develop projections of lower income housing units in future years. Lower income households are those with less than 80 percent of the area's median household income, adjusted for family size. Indio will strive to meet their new construction goals of the RHNA. The demand for lower income households is included in the water use projections in Table 7-11. The City of Indio 2021-2029 Housing Element (2022) projects needing 2,963 low to extremely low income

housing units by 2029 that meet the definition of SCAG RHNA. A similar proportion of future lower income housing units is estimated for years 2030 through 2050.

Indio has summarized the projected water use for lower income households assuming the following:

1. the average persons per household remains constant at the 2024 level of 2.97 persons per household,
2. lower income housing needs are proportional to the projected population growth, and
3. daily water use per capita is equal to the average per capita water usage for 2020-2024.

The estimated demand for lower-income households is approximately 1,800 AFY. This demand has been included in the demand projections prepared for this RUWMP.

7.4.5 Climate Change Considerations

Increased drought risk as a result of climate change may impact demands in the future. A combination of state- and local-led demand management measures may reduce demand for irrigation via landscape ordinances, while public outreach and education can lead to reductions in water demands through conservation measures.

A more detailed discussion of potential climate change impacts is presented in Chapter 3 of the RUWMP.

7.5 SB7x7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that Indio achieved its 2020 water use target in 2020.

7.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. Indio selected to use Method 1, which was calculated based on the selected 10-year baseline of 327 GPCD. Using that criteria, Indio's selected 2020 target was 262 GPCD.

7.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, Indio's service area population and gross water use were compared to the SBx7-7 target.

The gross water used was determined from using production records. Indio's sole source of supply is groundwater. Indio's water use was calculated as 262 GPCD for year 2020.

7.5.3 Supplier Met 2020 Target in 2020

Indio met their 2020 target as reflected in Table 7-13 below, which includes their 2020 target and 2020 Actual GPCD. Indio was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

Table 7-13 SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	262	225	Yes

7.6 Water Supply Characterization

This section describes the water supplies currently available to Indio and those planned for the 25-year planning period.

7.6.1 Water Supply Analysis Overview

Indio produces all its water supplies from the Coachella Valley Groundwater Basin, Indio Subbasin, which is continuously replenished by DWA and CVWD with imported water. The Indio Subbasin serves as an expansive conjunctive use resource that is capable of ensuring a sufficient and sustainable water supply to serve existing uses and projected growth during normal, single-dry and multiple-dry years over an extended planning horizon.

7.6.2 Supply Characterization

This discussion includes the types of water supply considered by DWR. As shown in Table 7-13, Indio serves 100 percent of customer demands with groundwater.

Table 7-14. Urban Water Supply 2020-2024 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024
Groundwater	Indio Subbasin	19,891	20,385	20,512	19,341	20,171
Total		**19,891**	**20,385**	**20,512**	**19,341**	**20,171**

7.6.2.1 Purchased or Imported Water

Indio does not use purchased or imported water. As described in Chapter 3 of the RUWMP, imported water is used on a regional basis for groundwater replenishment.

7.6.2.2 Groundwater

Groundwater has historically been the sole source of supply for Indio. Supplies for the City of Indio are primarily from the lower aquifer in the Indio Subbasin, the largest subbasin in the Coachella Valley Groundwater Basin, which is a common groundwater source shared by CVWD, CWA, DWA, Indio, MDMWC, and numerous private groundwater producers. Because the Indio Subbasin is an un-adjudicated basin, Indio does not hold specific water rights, but rather pumps supplies from the aquifer as needed to meet demands within its service area. More information about the Indio Subbasin is presented in Chapter 3 of the RUWMP.

Indio currently has 20 operational groundwater supply wells. Pumping capacities for these wells range from 1,200 gpm to 3,500 gpm, with a total pumping capacity of 74,600 AFY. Indio historical groundwater pumping is summarized in Table 7-15.

Table 7-15. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Indio Subbasin	20,385	20,512	19,341	20,171	20,249
Total		**20,385**	**20,512**	**19,341**	**20,171**	**20,249**

Groundwater Quality

Indio's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by Indio meets all U.S. EPA and SWRCB guidelines (Indio 2025b).

In October 2024, the SWRCB approved the country's first drinking water standard for hexavalent chromium (chromium-6) at 10 µg/L. Indio reports a range of chromium-6 results from 9.8 to 18 µg/L collected during 2024. While a water system of Indio's size is not considered in violation of the chromium-6 MCL until after October 1, 2026, Indio is working to address this exceedance and comply with the MCL. In 2023, Indio

completed an MCL Compliance Strategy and a Conceptual Design Report for chromium-6 removal using Reduction Coagulation Filtration (RCF). In 2024, Indio completed the RCF Pilot Testing at well W to demonstrate effluent water quality parameters to VSD. The next steps are to continue seeking grant funding and finalize Phase I design (Indio 2025b).

7.6.2.3 Surface Water

Indio does not currently use or intend to use any surface water (non-imported surface water) as part of its water supply.

7.6.2.4 Stormwater

Indio does not currently use stormwater as a water supply. All stormwater either percolates into the groundwater basin or is conveyed to the CVSC. Stormwater capture may become a potential future supply but is not currently being considered due to the low average volume of water available for capture. As the local flood control authority, CVWD considers delivery of treated stormwater as a potential future potable or non-potable water supply.

7.6.2.5 Wastewater and Recycled Water

This section describes the existing and future recycled water opportunities available to Indio's service area. Wastewater treatment services for the City of Indio are predominantly provided by VSD. Indio and VSD are working together to evaluate a recycled water program to augment the local water supply.

Indio completed a 2011 Recycled Water Master Plan and 2018 Recycled Water Development Feasibility Study to assess potential customers and infrastructure build-out to support recycled water service within the service area. The City of Indio is served by two WWTPs: one is owned by VSD (VSD WWTP) and the other by CVWD (WRP-7). The VSD WWTP is located on Van Buren Street in the City of Indio and provides services to 96 percent of the City's population. Currently, VSD discharges the effluent to the CVSC. VSD WWTP operates parallel treatment processes: an activated sludge treatment process and a biological treatment pond process. Any effluent that is not reused is discharged to the CVSC which flows directly to the Salton Sea. The current operational capacity of VSD WWTP is 12.5 MGD with average daily flow of >6 MGD.

CVWD's WRP-7 treats a small percentage of the City's wastewater as well. The facility is located at Avenue 38 and Madison Street in the City of Indio. WRP-7 is a tertiary treatment facility, and the effluent produced is recycled for non-potable uses for CVWD irrigation customers.

Wastewater collection and treatment in the Indio service area is summarized in Table 7-16 and Table 7-17.

Recycled Water Planning

Indio and VSD formed the East Valley Reclamation Authority (EVRA) in 2013. EVRA is a Joint Powers Authority created to develop an indirect potable reuse (IPR) project, to replenish the groundwater basin and supplement a sustainable water supply. The existing VSD WWTP facilities consist of primary and secondary treatment facilities, which discharge to the CVSC. Development of a new recycled water supply would require the addition of tertiary treatment facilities, and potentially advanced treatment, depending on the ultimate use of the recycled water.

Indio's 2016 Recycled Water Feasibility Study evaluated a proposed recycled water system. However, due to lack of irrigation customers, a purple pipe system is not feasible. Indio continues to work with VSD to evaluate expansion of the VSD WWTP to produce recycled water suitable for groundwater replenishment. Implementation is currently anticipated by 2035, subject to completion of design, environmental review, and permitting. The EVRA project is estimated to provide approximately 1 MGD (1,120 AFY) of replenishment supply.

The projected uses of recycled water are shown in Table 7-18. The 2020 UWMP projected recycled water uses for 2025 are compared with actual recycled water use in Table 7-19.

Table 7-16. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**	**WWTP Operation Contracted to a Third Party**
Valley Sanitary District	Estimated	5,950	Valley Sanitary District	Valley SD WWTP	Yes	No
Coachella Valley Water District	Estimated	266	Coachella Valley Water District	WRP-7	Yes	No
Total		**6,216**				

Table 7-17. DWR 6-3R Wastewater Treatment and Discharge within Service Area in 2025

Wastewater Treatment Plant Name	**Discharge Location Name or Identifier**	**Discharge Location Description**	**Wastewater Discharge ID Number**	**Method of Disposal**	**Plant Treats Wastewater Generated Outside the Service Area**	**Treatment Level**	**2025 Volumes (AFY)**				
							Wastewater Treated	**Discharged Treated Wastewater**	**Recycled Within Service Area**	**Recycled Outside of Service Area**	**Instream Flow Permit Requirement**
VSD WWTP	Coachella Valley Stormwater Channel	Stormwater channel	CA0104477-001 7A333069001	Storm Channel	Yes (portions of the City of Coachella and County of Riverside)	Secondary	5,950	5,950	0	0	0
Total							**5,950**	**5,950**	**0**	0	0

Note: Treatment at CVWD WRP-7 is reported in chapter 4 of the RUWMP.

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Table 7-18. DWR 6-4R Recycled Water Within Service Area (AFY)

Name of Supplier Producing (Treating) the Recycled Water			Valley Sanitary District					
Name of Supplier Operating the Recycled Water Distribution System			Indio Water Authority					
Supplemental Volume of Water Added in 2025			N/A					
Source of 2025 Supplemental Water			N/A					
Beneficial Use Type	**Level of Treatment**	**General Description of 2025 Uses**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Groundwater Recharge (IPR)	Advanced	N/A	0	0	1,120	1,120	1,120	1,120
Total			**0**	**0**	**1,120**	**1,120**	**1,120**	**1,120**

Progress has been slower than anticipated in the 2020 RUWMP. EVRA is currently working on preliminary design for a 1 MGD groundwater replenishment project.

Table 7-19. DWR 6-5R Recycled Water Use Projection Compared to Actual

Use Type	2020 Projection for 2025 (AFY)	2025 Actual Use (AFY)
Groundwater Recharge (IPR)	5,000	0
Total	**5,000**	**0**

Indio has explored potential mechanisms to encourage customers to transition from groundwater pumping to available recycled water supplies where feasible. These considerations have included evaluating rate structures, financial incentives, and potential policy tools to promote the use of recycled water provided by regional partners. However, Indio's 2016 Recycled Water Feasibility Study evaluated a proposed recycled water system. Due to lack of irrigation customers, a purple pipe system is not feasible. Instead, Indio and VSD are collaborating on production of recycled water for groundwater replenishment.

Future expansion of recycled water use within the Indio service area would require continued collaboration among Indio, CVWD, VSD, and other regional entities.

7.6.2.6 Desalinated Water Opportunities

Indio has previously considered the potential for participating in a regional desalination project developed by other agencies, such as MWD or the San Diego County Water Authority, in exchange for receiving a portion of imported water supplies through a transfer or exchange arrangement. However, as an inland agency without a direct imported water entitlement or physical conveyance connection to desalinated supplies, participation would require complex interagency agreements, exchange mechanisms, and potential infrastructure modifications. These factors, combined with cost considerations and regulatory requirements, currently limit the feasibility of such an arrangement.

At this time, Indio's water supply strategy remains focused on groundwater production from the Indio Subbasin, supported by regional groundwater replenishment programs administered by the CVWD. Seawater desalination is not considered a near-term or economically viable supply alternative for Indio under existing conditions.

7.6.2.7 Water Exchanges and Transfers

Indio is not currently involved in any water exchange or water transfer agreements. Regional exchange programs within the Coachella Valley, such as SWP water exchanged for Colorado River water, are administered by the CVWD and DWA and do not directly involve Indio.

Indio does not hold imported water entitlements and has no current plans to enter into temporary or long-term water transfer agreements. Indio's water supply strategy remains dependent on groundwater production from the Indio Subbasin, consistent with regional groundwater management programs.

Indio maintains three emergency intertie connections with CVWD to provide short-term supply reliability in the event of system outages or emergencies. These interties are summarized in Table 7-20. Indio is in discussions with MDMWC for a new emergency intertie west of Indio's system.

Table 7-20. Emergency Interties

Location	As-Built Date	Current Configuration	Capacity
Northwest corner of Avenue 40 and Madison St.	8-20-2007	8" Cla-valve and meter; currently valves are off with no current set points on Cla-valve	3,100 gpm estimated
Northeast corner of Congress St. and Philadelphia Ave.	12-1-2003	One valve with 4 stub outs; no meter or Cla-valve	3,800 gpm – estimated with 6" diameter at 62 PSI to atmosphere
South side of Miles Ave., 250' west of Monticello Ave.	5-21-2004	Currently valves are off with no current set points on clay valve; it has a 6" Cla-valve and meter	4,000 gpm – estimated with 6" diameter at 82 PSI to atmosphere

7.6.2.8 Future Water Projects

Indio is evaluating several supply augmentation programs to enhance long-term water supply reliability. In partnership with EVRA, Indio is advancing a recycled water and groundwater recharge project that builds on prior planning efforts. The project would expand tertiary (Title 22) treatment at the VSD WWTP to produce recycled water suitable for groundwater recharge and non-potable reuse. Implementation is currently anticipated by 2035, subject to completion of design, environmental review, and permitting. The project is estimated to provide approximately 1 MGD (1,120 AFY) of recharge supply. Planned water supply projects are listed in Table 7-21.

Table 7-21. DWR 6-7R Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier (AFY)
Groundwater Recharge	Yes	Indio, VSD	Recycled water for groundwater recharge	2035	Average Year	1,120

7.6.2.9 Summary of Existing and Planned Sources of Water

Indio currently receives 100 percent of its water supply from groundwater, and does not currently participate in water desalination, water exchanges or transfers, or purchase of imported water supplies. By 2035, in partnership with VSD, Indio intends to produce up to 1,120 AFY of recycled water for groundwater replenishment. A preliminary design report is currently underway to refine sizing and timeline for the EVRA project. Summaries of the existing and planned water supply volumes by source are presented in Table 7-22 and Table 7-23.

Table 7-22. DWR 6-8R Actual Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume	Water Quality
Groundwater	Indio Subbasin	20,249	Drinking Water
Total		**20,249**	

Table 7-23. DWR 6-9 R Projected Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2030	2035	2040	2045	2050
Groundwater	Indio Subbasin	19,938	20,688	21,111	21,594	22,077
Recycled Water	EVRA	0	1,120	1,120	1,120	1,120
Total		**19,938**	**21,808**	**22,231**	**22,714**	**23,197**

7.6.2.10 Special Conditions

Although groundwater is a relatively resilient water supply with respect to climate change, long periods of drought/dry weather may reduce the availability of imported water for groundwater recharge. A more detailed discussion of potential climate change impacts is presented in Chapter 3 of the RUWMP.

7.6.3 Energy Use

Indio has compiled data to document the energy used for water management operations. Indio used the Total Utility Approach to estimate the energy intensity of its water management operations. The results are presented in Table 7-24.

Table 7-24. DWR O-1B Energy Intensity Reporting

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	1/1/2024	**Urban Water Supplier Operational Control**		
End Date	12/31/2024			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AF	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		20,171	0	20,171
Energy Consumed (kWh)		11,558,503	0	11,558,503
Energy Intensity (kWh/volume)		573.0	0.0	573.0
Quantity of Self-Generated Renewable Energy				
0	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Combination of Estimates and Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption records maintained by the agency.				
Narrative				
The agency uses energy for groundwater production from wells, pumping at booster stations from lower pressure zones to higher pressure zones, and treatment processes.				

7.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability that compares total projected water use with the expected water supply over the next 20-25 years in five-year increments, including a single dry year and multiple dry years. This section presents the reliability assessment for Indio's service area.

7.7.1 Reliability Overview

Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions. Potential constraints on these supplies that could affect reliability are discussed in Chapter 3 of this RUWMP.

It is the stated goal of Indio to deliver a reliable and high-quality water supply to its customers, even during dry periods. Indio has already achieved a reduction in water use from its baseline greater than 20 percent. The UWMP will continue to ensure that urban water resources are reliably and sustainably secured for existing and future customers of Indio.

7.7.2 Water Service Reliability Assessment

The Coachella Valley Groundwater Basin is un-adjudicated and has sufficient storage to meet the projected pumping conditions on the basin for the next 25 years, and beyond. Thus, issues related to reliability of supply and vulnerability to seasonal and climatic changes do not significantly affect the reliability of the Coachella Valley Groundwater Basin. All of the water currently and historically consumed by Indio comes from the groundwater basin.

Because groundwater supplies have not been vulnerable to seasonal or climatic conditions, the supplies are limited only by available Indio pumping capacity. The water quality of Indio's water supply, consisting entirely of pumped groundwater, meets applicable regulatory criteria.

The "normal year" represents the average water supply conditions and availability to Indio. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to Indio. Though Indio's groundwater in storage is not constrained in dry years, this RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. Indio's water use data from the last 20 years was evaluated to understand demand response among its customer base. For Indio, the single dry year demand represents 107 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to Indio for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record, it represents a more accurate demand response to drought conditions due to conservation programs implemented in recent years. For Indio, the multiple dry year demand increases by one to two percent year-over-year from 102 to 108 percent of normal conditions.

The available water supplies and demands for Indio's service area were analyzed to understand the region's ability to satisfy demands during three scenarios: an average water year, single-dry year, and multiple-dry years. The years and availability are summarized in Table 7-25.

Table 7-25. DWR 7-1R Basis of Water Year Data

Year Type	Base Year	Available Supply if Year Type Repeats Percent of Average Supply
Average Year	2015-2024	100%
Single-Dry Year	2021	107%
Consecutive Dry Years 1st Year	2020	102%
Consecutive Dry Years 2nd Year	2021	103%
Consecutive Dry Years 3rd Year	2022	105%
Consecutive Dry Years 4th Year	2023	106%
Consecutive Dry Years 5th Year	2024	108%

The Indio Subbasin storage will be used in dry years to support potential differences between demands and supply. The groundwater basin has a capacity of approximately 29.8 million acre-feet. It is capable of meeting the water demands of regional agencies for extended periods during normal, single-dry and multiple-dry-year conditions.

7.7.2.1 Normal Water Year

The expected water supply availability for an average (normal) year is provided in Table 7-26. This analysis does not include WSCP use reduction in a normal year. The available supply is assumed equivalent to the projected demands since the basin is non-adjudicated and based on the expected reliability of the groundwater basin. The supply and demand comparison for the normal year results in no shortages.

Table 7-26. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	19,938	20,688	21,111	21,594	22,077
Demand Totals (AFY) From DWR Table 4-3R	19,938	20,688	21,111	21,594	22,077
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

7.7.2.1 Single Dry Year

The single dry year represents a “worst-case” scenario for demand response, jumping to 107 percent of normal conditions in a single year. Due to the reliability of the region’s groundwater basin, water supply availability during a single-dry year scenario was assumed to be similar to the average year scenario. Supply will consist of pumped groundwater and recycled water. Any additional supply needed will be pumped from the groundwater basin. Reliability during a single dry year is shown in Table 7-27. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable as groundwater in storage in the Indio Subbasin is available to serve increased demand. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 7-27. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	21,238	23,158	23,609	24,123	24,638
Demand Totals (AFY)	21,238	23,158	23,609	24,123	24,638
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

7.7.2.1 Multiple Dry Years

Reliability during a multiple-dry year scenario was assumed to be similar to the average year scenario. Any additional supply needed will be pumped from the groundwater basin. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. It is assumed that Indio's Water Shortage Contingency Plan (WSCP) would be implemented in the second year of a multiple-dry-year period, reducing some of the increased demand. This reliability forecast conservatively assumes that the WSCP will reduce water use by one percent in the second through fifth years of a multiple year drought. The multiple dry year supply scenario is shown in Table 7-28. The multiple dry year urban water supply reliability is 100 percent, as groundwater in storage in Indio Basin will be used to supplement increased demand. In five consecutive dry year conditions, there are no shortages.

Table 7-28. DWR 7-4R Multiple Dry Years Supply and Demand Comparison

	2030	2035	2040	2045	2050
First Year					
Supply Totals (AFY)	25,237	25,998	26,428	26,918	27,409
Demand Totals (AFY)	25,237	25,998	26,428	26,918	27,409
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply Totals (AFY)	25,536	26,309	26,745	27,242	27,740
Demand Totals (AFY)	25,536	26,309	26,745	27,242	27,740
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	134	139	142	145	148
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	25,835	26,619	27,061	27,566	28,071
Demand Totals (AFY)	25,835	26,619	27,061	27,566	28,071
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	136	141	144	147	150
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	26,134	26,929	27,378	27,890	28,402
Demand Totals (AFY)	26,134	26,929	27,378	27,890	28,402
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	138	143	146	149	153
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fifth Year					
Supply Totals (AFY)	26,433	27,240	27,695	28,214	28,733
Demand Totals (AFY)	26,433	27,240	27,695	28,214	28,733
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	140	145	148	151	155
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

Historically, the groundwater basin has shown signs of overdraft, which could impact reliability in the very long term. The implementation of ongoing groundwater management efforts (see Chapter 3 of the RUWMP) seeks to ensure groundwater levels are maintained to mitigate potential overdraft conditions of the basin. Indio also continues to develop and expand an Urban Water Use Efficiency and Conservation Program to implement DMMs and other conservation programs to decrease the annual volume of water consumed.

7.7.3 Drought Risk Assessment

The five-year Drought Risk Assessment (DRA) is intended to evaluate current water supply availability by simulating demand and supply for the next five years under multiple dry year conditions

Demands are expected to increase from current 2025 demands based on the assumptions of demand increase during multi-dry year periods. For Indio, the multiple dry year demand increases by one to two percent year-over-year from 102 to 108 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands by existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify a potential shortage are described in the WSCP. The DRA assumes the WSCP would be implemented in the second year of a five-year drought. Based on the reliability analysis in Section 7.7, the supply of groundwater is fully reliable under a five-year drought, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 7-29. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 7-29. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	20,552
	Total Supplies (AFY)	20,552
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/(Shortfall)	**0**
	Resulting Percent Use Reduction from WSCP Action	**0%**
2027	Gross Water Use (AFY)	20,856
	Total Supplies (AFY)	20,856
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	133
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**1%**
2028	Gross Water Use (AFY)	21,160
	Total Supplies (AFY)	21,160
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	137
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**1%**

2029	Gross Water Use (AFY)	21,463
	Total Supplies (AFY)	21,463
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	139
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**1%**
2030	Gross Water Use (AFY)	21,767
	Total Supplies (AFY)	21,767
	Surplus/(Shortfall) without WSCP Action	**0**
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	141
	Revised Surplus/(Shortfall)[1]	**0**
	Resulting Percent Use Reduction from WSCP Action	**1%**

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

7.8 Water Shortage Contingency Plan

Indio has developed a WSCP that outlines it's strategy for assessing and responding to potential water shortages. Building on the region's overall high water supply reliability, the WSCP prepares for risks such as prolonged drought, infrastructure failure, regulatory restrictions, contamination, and other emergencies. It establishes procedures for annual water supply and demand assessments, coordination among regional water agencies, and use of six standardized shortage levels that range from minimal conservation requirements to severe, mandatory restrictions when more than 50% supply reduction occurs.

To manage shortages, the WSCP details a suite of supply augmentation methods, demand reduction actions, operational adjustments, communication protocols, and enforcement mechanisms. Actions escalate by shortage level and may include outdoor irrigation limits, reduced water budgets, expanded public outreach, drought surcharges, mandatory rationing, and prohibitions on potable outdoor use. The WSCP also describes financial implications, monitoring and reporting requirements, seismic risk considerations, and emergency response coordination with regional partners. It sets forth legal authorities supporting plan implementation and provides the procedures for adoption, future amendments, and public engagement.

The Indio WSCP is included in Appendix C of this RUWMP.

7.9 Demand Management Measures

This section describes DMMs implemented by Indio to encourage efficient use of water. Establishing goals and choosing water conservation measures is a continuing planning process. Goals are developed, adopted, and then evaluated periodically. Specific conservation measures are phased in and then evaluated for their effectiveness, achievement of desired results, and customer satisfaction.

7.9.1 Existing Demand Management Measures for Retail

Compliance with water savings goals can be accomplished by implementing the specific measures laid out in each DMM. DMMs refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a reliable reduction in water demand.

7.9.1.1 Water Waste Prevention Ordinances

A Water Waste Prohibition is an important component for any conservation plan and refers to enactment and enforcement measures that prohibit gutter flooding, single pass cooling system in new connections, non-recirculation system in all new conveyer car washes and commercial laundry systems, and non-recycling decorative water fountains.

The City of Indio had originally passed Ordinance No. 1662 in October 20214 prohibiting water wasting which results in flows onto roadways, adjacent property, or non-irrigated property. The current Ordinance No. 17662 was updated in July 2021 and added new water shortage stages (V & VI), stricter water-efficient landscape development standards, and clearer penalties. In addition, the City has also passed Ordinance No. 257, which states: “Chapter 54.050 It shall be unlawful for any person to willfully or neglectfully waste in any manner, any person having knowledge of any conditions whereby water is being wasted, shall immediately notify the Water Department of that fact.”

Indio enforces local ordinances regarding sprinklers which could include a temporary shut-off of water service upon receipt of a complaint of a broken sprinkler head. Indio is addressing nuisance water through this ordinance. However, Indio has addressed nuisance water more specifically in its landscaping ordinance (54.054).

The public is able to report water wasters online at Indio’s “Report Water Wasters!” site. Indio has developed a “Water Waster Notice” to notify the property owner of the violation and corrective actions to be taken when over-irrigation or water wasting is reported on the property. Indio has developed a form for calculating the amount of water being wasted and can inform the property owner. With documentation of wasted water, specifically by photos of the violation and “Water Waster Notice,” Indio can enforce its regulations and educate the public.

The effectiveness of this DMM is currently determined by how many revisits are made to a site and by tracking the number of total complaint calls received in the database.

7.9.1.2 Metering

Currently, 100 percent of Indio’s customers are metered for water use and meters are required for any new service connections. This DMM enables Indio to meter and bill customers based on their actual volume of use. Industry organizations estimate that metered accounts along with volumetric rates can result in a 20 percent reduction in demand. Indio has likely already realized the savings associated with metering all accounts. A tiered rate structure would be necessary to reduce further usage under this DMM.

Indio’s meter change-out program has been fully implemented with Advanced Metering Infrastructure and Automated Meter Reading system.

7.9.1.3 Conservation Pricing

Retail conservation pricing provides economic incentives to customers to use water efficiently. The goal of this DMM is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs, financial stability, revenue sufficiency, and customer equality. Indio’s Board has approved a new allocation-based rate structure that went into effect on January 1, 2014. The new rate structure alone will change customer behaviors, resulting in conservation. The revenue for the rate structure will also off-set the costs of the conservation program. The current rate structure is based on meter size and monthly fixed charges (Indio 2025a).

7.9.1.4 Public Education and Outreach

Indio's public education and outreach includes its conservation website, public information, school education, and CV Water Counts.

Indio has a portion of its website (**https://www.indio.org/departments/indio-water-authority/water-conservation**) devoted to water conservation and education. The website provides information on Indio's adopted water restrictions, useful links for water savings and reporting water waste, irrigation guides, and rebate programs for turf removal, smart irrigation controllers, and toilets.

Indio has been proactive and implemented a public information program. Through the program, Indio can assist customers in identifying opportunities for conservation via brochures, media events, service announcements, workshops, and other means. Savings could be significant if the program targets residential outdoor use, including demonstration gardens for re- landscaping away from turf. Indio's current public information program includes: Public service announcements; Bill inserts, newsletters, and brochures; Special events and media events; and Speakers bureau.

A school education program contributes to the long-term reduction in water use as a result of actual changes to water use behaviors in City of Indio's youth. Indio has presented to classes in the Desert Sands Unified School District as well as provided calendars promoting efficient water use to several elementary schools. Each year the Indio offers school presentations free of charge to any interested school or class. Presentations include information about water conservation, water quality and information about where the water comes from. Costs for this program have been estimated as $10 per year per student reached.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (https://cvwatercounts.com/) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts Program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact.

7.9.1.5 Programs to Assess and Manage Distribution System Real Loss

Indio conducts a program for system water audits, leak detection, and repair. Indio reported a water loss of 993 AF in the 2024-2025 fiscal year. For that reporting year, 20,249 AF of water was produced resulting in a water loss of 4.9 percent. Non-revenue water in the FY2024-2025 calendar year was 6.4 percent suggesting that Indio has already achieved the goal of less than 10 percent. Indio would like to further reduce unaccounted-for water losses in its system to between 3 and 5 percent. Such a reduction could result in additional water savings of approximately 300 to 700 AFY by 2030.

Indio expects that the program will be further expanded. Expansion of this program will enhance Indio's knowledge and awareness of its system, which will allow for more accurate targeting of problem areas for future maintenance or replacement. Areas of expansion currently in effect are:

- Changing the way Indio performs fire flows, utilizing hydraulic modeling software to predict the available fire flow without using any water.
- Indio has had its own inspector since mid-2007 to monitor water use at construction sites and ensure all flows are being monitored.
- Indio acquired an electronic leak-detection device in 2008, which was the first step in implementing its leak detection/prevention program.
- Indio began tracking metered, unbilled usage on a monthly basis in 2022.

7.9.1.6 Water Conservation Program Coordination and Staffing Support

Indio has conservation programs for CII and a dedicated Conservation Coordinator in charge of implementation of the conservation programs.

A Conservation Coordinator provides oversight of conservation programs and DMM implementation, as well as communicating and promoting water conservation issues. The Coordinator oversees not only water conservation, but also other environmental programs within the City of Indio. Indio plans on maintaining a Conservation Coordinator and Manager on staff at all times.

7.9.1.7 Other Demand Management Measures

Indio's other DMMs include: water survey programs for residential customers, landscape conservation programs and incentives, high efficiency washer incentives, and low flush toilet replacement programs.

Water Survey Programs for Residential Customers & Residential Retrofits

A water survey program for residential customers is a key component of Indio's conservation plan. Through the survey program, residents can request that Indio staff visit their homes and identify opportunities outside the residence or business to reduce consumption, such as landscaping conversions or the installation of more efficient irrigation heads. Indio has been performing outside surveys for residents and businesses since 2008. Over 2,000 landscape conversions have been performed.

Indio may be able to expand this program to include indoor surveys as well. Indio may consider requiring in-home surveys for any residents interested in participating in its Smart Controller and/or Re- landscape Rebate programs.

This part of the program is still in the planning phase and has not yet been implemented. Indio is continually working to improve and expand conservation plans through partnerships and additional funding opportunities. In 2011 Indio signed an MOU with CVWD to provide Indio residents who are served by CVWD equal opportunities to receive smart controller rebates or convert lawns to desert landscape.

A residential plumbing retrofit program can also contribute to the overall reduction in indoor water use in the residential customer class. This program targets residences constructed prior to 1992. Indio should market this program to the North Indio and Central zones of the City, where pre-1992 construction accounts for 97 percent and 77 percent of residences, respectively.

Other utilities implement residential plumbing retrofit programs through the actual distribution of retrofit kits to their residential customers, at no cost to the customers. The kit should include a minimum of one new showerhead and two aerators (one kitchen and one bathroom). The estimated cost of such a kit is $10. The Gas Company distributes these kits and in partnership with the Gas Company, Indio helps promote the program to Indio residents. The Indio promotes the program through the website and supplying information during residential audits.

Indio may expand this program and possibly add toilet retrofit kits dependent on future funding.

Large Landscape Conservation Programs and Incentives

A large landscape water conservation program with incentives for Indio's CII and irrigation customers could be an important component of its long-term conservation plan. Indio should strive to provide educational opportunities to these clients about the benefits and opportunities for reducing their outdoor water usage. An important aspect of this program will be surveys and water audits of landscaping water usage.

The cost for each CII survey has been estimated as twice that of a residential survey or $220 per survey, which accounts for the time spent by Indio staff to perform surveys and track program implementation.

This program is still in the planning phase and has not yet been implemented. Implementation goals were established in the conservation master plan. Indio continues to seek partnerships and additional funding to implement and expand conservation programs including this DMM.

High Efficiency Clothes Washing Machine Financial Incentive Programs

Indio implements a high-efficiency clothes washing machine (HECW) financial incentive program. As of 2018, clothes washers that have earned the ENERGY STAR certification use 14 gallons of water per load, compared to the 20 gallons used by a standard machine. Indio now provides a high-efficiency washing machine rebate, offering a maximum of $150 rebate per installed washing machine. Washing machine must be ENERGY STAR certified with an Integrated Water Factor of 6 or less. Indio approved 27 rebates in 2024 and 19 in 2025.

The promotion and use of high-efficiency washing machines has social value as it brings conservation products, literally, in direct contact with area users, thereby raising awareness of water conservation efforts. Furthermore, the use of these products has the potential to reduce customer water, wastewater, gas and electric bills. The use of these products provides no direct health benefit or detriment. The indirect benefits of this are that less energy and detergents are used to operate the machines. This would reduce the need for groundwater pumping and replenishment, collection, treatment and the subsequent reuse or disposal of wastewater, as well as the numerous environmental benefits of reducing energy consumption.

Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

Conservation programs for Indio's CII customers could play a significant role in its long-term conservation plan. Under this DMM, Indio will need to identify and rank CII customers by their water use, develop an Ultra-low-flush toilets (ULFT) program, and either implement a CII water use survey and incentives program or establish and meet CII conservation performance targets.

If Indio chooses to pursue a CII Survey and Customer Incentives Program, then it should work to supply surveys to 10 percent of its CII customers within 10 years. However, if Indio pursues a CII Conservation Program, then that program should achieve a 10 percent reduction in the CII baseline water use within 10 years. Some utilities have achieved this by supplying one-time grants to CII customers for both indoor and outdoor water conserving measures. This program is still in the planning phase and has not yet been implemented. Indio continues to seek new partnerships and additional funding to expand conservation programs.

Residential Ultra Low Flush Toilet Replacement Programs

Ultra-low-flush toilets (ULFT) conserve water by utilizing far less water than older, less efficient toilets. An ULFT uses less than 1.6 gallons per flush. In addition to direct conservation benefits, the promotion and use of these toilets has social value as it brings conservation products in direct contact with area users, thereby raising awareness of water conservation efforts. Indio offers a ULFT rebate of up to $150 per ULFT for ULFTs of 1.28 gallons per flush or less. The rebate is limited to the number of toilets in the household. Indio approved rebates for 52 installations in 2024 and 49 in 2025.

In addition to the rebate program, ULFTs are required for all new construction per plumbing code requirements. ULFTs were first introduced to the U.S. market in 1980, and the manufacturing of older, less efficient toilets designs was halted shortly thereafter in 1992 when the state mandated all new toilets must be ULFTs. Industry estimates are that natural replacement of residential toilets occurs every 20-3050 years or at a rate of about 3-52 percent per year. Using this methodology, approximately 25 30 percent of the toilets from pre-1980 1992 houses would still be installed in 2025.

Landscape Conversion Rebate Program

Indio offers a rebate to its customers for converting their outdoor grass landscaping to desert-friendly landscaping, which requires less irrigation. For residential properties, the rebate consists of $2 per square foot of landscaping or turf, up to $20,000 per project. Approved residential conversions that plant one new native tree for every 250 square feet converted are offered $3 per square foot of landscaping or turf, up to $30,000 per project. For commercial properties, the rebate consists of $2 per square foot of landscaping or turf, up to $60,000 per project. Turf conversions larger than 2,500 square feet are subject to additional requirements and review by Indio and the City of Indio Community Development Department. Under this rebate program, Indio converted 41,481 square feet of landscape in 2024 and 11,426 square feet in 2025

Irrigation Upgrade Rebate Program

Indio incentivizes upgrading above ground irrigation devices such as bubblers, smart irrigation controllers and pressure regulators. These appliances reduce water use by applying water when plants need it, reducing overwatering. Indio offers a rebate of up to $750 for residential accounts and $1500 for commercial accounts for eligible products. Indio issued 12 rebates in 2025.

7.9.2 Implementation of DMMs

Indio's Conservation Program was initiated in 2008. In developing its water Conservation Program, Indio utilized many DMMs as guidelines. Indio continues to seek new partnerships and addition funding to expand conservation programs. Indio will continue to implement water conservation practices and enforce requirements of City ordinances to maintain lower than historic per capita water use.

7.10 Plan Adoption, Submittal, and Implementation

This section includes a discussion of Indio's process for adopting, submitting, and implementing the RUWMP and Indio's WSCP.

7.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. Indio issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and Indio's WSCP. Indio provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 7-30, and the notification letters are included in Appendix A of the RUWMP. Indio provided an additional notice to the cities and counties with the time and date of the public hearing.

Table 7-30. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
La Quinta	Yes	Yes
Indio	Yes	Yes
Coachella	Yes	Yes
County		
Riverside	Yes	Yes

Prior to the public hearing and in accordance with California Government Code §6066, Indio provided notice to the public through its website and published announcements of the public hearing in the newspaper on two occasions before the hearing. Copies of the proof of publication are included in Appendix A of the RUWMP, Public Hearing and Adoption

Indio held a public hearing on June 17, 2026, located at City of Indio Council Chambers, 150 Civic Center Drive, Indio, CA 92201 to hear public comment and consider adopting this RUWMP and Indio's WSCP.

As part of the public hearing, Indio provided information on Indio's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and Indio's WSCP took place before the adoption of the Plans, which allowed the opportunity to modify the RUWMP and Indio's WSCP in response to public input before adoption. After the hearing, the Plans were adopted as prepared or as modified during the hearing.

The adoption resolution for the RUWMP and Indio's WSCP is included in Appendix F.

7.10.2 Plan Submittal

Indio will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to the Cities of La Quinta, Indio, and Coachella and the County of Riverside, which Indio supplies water to, within 30 days of adoption.

Indio is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

7.10.3 Public Availability

The RUWMP and Indio's WSCP will be available on the Indio website for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at Indio's office (see address below) during regular business hours.

City of Indio City Hall
100 Civic Center Drive
Indio, CA 92201

The final documents will also be posted on Indio's website at **https://www.indio.org/departments/indio-water-authority/engineering-water-resources**.

7.10.4 Amending an Adopted UWMP or WSCP

If Indio identifies the need to amend the adopted RUWMP or Indio's WSCP, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended RUWMP.

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Chapter 8 Mission Springs Water District

8.1 Introduction

The Mission Springs Water District (MSWD) has participated in the RUWMP for compliance with the UWMP Act. This chapter describes information specific to MSWD and its water use efficiency programs. As an urban water supplier, MSWD is required to prepare a UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies, and this chapter contains information specific to MSWD.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWMP.

8.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 8.1 - Introduction and Lay Description.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 8.2 - Plan Preparation.** Provides information on MSWD's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 8.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and MSWD's organizational structure and history.
- **Section 8.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within MSWD's service area.
- **Section 8.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes MSWD's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 8.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to MSWD. Includes discussion of potential recycled water uses and supply availability.
- **Section 8.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of MSWD's water supply and projects the reliability for at least the next 20 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 8.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides MSWD's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 8.9 - Demand Management Measures.** Describes MSWD's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 8.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by MSWD to adopt and submit the UWMP and to make it publicly available. Includes a discussion of MSWD's plan to implement the UWMP.
- **Appendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

8.1.2 UWMPs in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 2 of the RUWMP.

8.1.3 UWMPs and Grant or Loan Eligibility

MSWD has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans.

8.1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The participating agencies' approach to demonstrating reduced reliance on the Delta is discussed in Chapter 3 of the RUWMP.

8.2 Plan Preparation

This section provides information on MSWD's process for developing the RUWMP, including efforts in coordination and outreach.

8.2.1 Plan Preparation

In accordance with the CWC, urban water suppliers must develop a UWMP every five years. An "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. MSWD supplies approximately 8,200 AFY to 13,500 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

8.2.2 Basis for Preparing a Plan

MSWD is a retail public water supplier that meets the definition of an urban water supplier with over 13,500 municipal water service connections in 2025. MSWD maintains three PWSs with information shown in Table 8-1.

Table 8-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
3310008	Mission Springs Water District	12,783	8,103
3310078	West Palm Springs Village	256	88
3310081	Palm Springs Crest	174	77
Total		**13,213**	**8,268**

8.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participation in an area wide, regional, watershed, or basin-wide urban water management plan. MSWD is participating in the Coachella Valley RUWMP.

8.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

8.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. MSWD is a retail agency and does not currently sell wholesale water. Table 8-2 shows MSWD's supplier identification information used throughout this report.

Table 8-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of measure used in UWMP	AF

8.2.6 Coordination and Outreach

MSWD does not receive water from a wholesale supplier and meets all its water demands through its own supplies. MSWD does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

8.3 Service Area Description

This section provides information about MSWD's service area, climate, and population.

8.3.1 General Description

MSWD was established in 1953 and was formerly known as Desert Hot Springs County Water District. MSWD's water service area consists of 135 square miles including the City of Desert Hot Springs, 10 smaller communities in Riverside County, and portions of the City of Palm Springs. MSWD offices are located in Desert Hot Springs, California.

MSWD provides potable water delivery and wastewater collection and recycling within its service area.

8.3.1.1 Domestic Water Delivery

MSWD's water supply source is 100 percent groundwater produced from District-owned and operated wells in the Mission Creek Subbasin. MSWD provides water service to approximately 43,000 people in its water service area. MSWD currently receives 100 percent of its water supply from groundwater produced from the Coachella Valley Groundwater Basin, which underlies the District's water service area. MSWD primarily produces groundwater from the Mission Creek Subbasin via eight active wells. To a lesser extent, MSWD also produces groundwater from the Indio Subbasin (Garnet Hill Subarea) via three active wells; and the San Gorgonio Pass Subbasin via two active wells.

The existing MSWD distribution system consists of three independent water distribution systems: 1) Desert Hot Springs and surrounding area system – encompasses the City of Desert Hot Springs, a portion of the City of Palm Springs and surrounding unincorporated areas of Riverside County including Desert Edge community, 2) Palm Springs Crest System, and 3) West Palm Springs Village System. The two smaller community systems are located on the north side of Interstate 10 abutting the Morongo Indian Reservation.

The existing Desert Hot Springs and surrounding area water distribution system serves up to 24 different pressure service zones through either a primary pressure zone or a reduced pressure service zone. In general, the MSWD standard pressure zones are reflective of existing storage tank overflow (or high water) elevations, i.e., the 913 Zone has a water storage tank high water elevation of 913 feet above mean sea level. As development of the MSWD service area has progressed, numerous storage tanks were constructed at varying elevations to maintain adequate pressure throughout the service area.

8.3.1.1 Wastewater Collection, Treatment, and Recycling

MSWD also provides sewer service to approximately 26,000 people in Desert Hot Springs, Desert Crest Country Club, and Dillon Estates Mobile Home Park. MSWD currently has approximately 120 miles of sewer gravity mains, most of which have been constructed in the past two decades. There are currently a significant number of septic systems within the sewer service area, which MSWD is converting to sewer as funding becomes available.

MSWD operates three wastewater treatment facilities. The Alan L. Horton WWTP is a 2.4 MGD (2,690 AFY) facility in Desert Hot Springs. The Desert Crest WWTP is a small 0.2 MGD (224 AFY) facility serving two mobile home parks in Desert Hot Springs. Each treatment facility treats flows from a separate portion of the collection system. The Horton WWTF is the primary treatment facility that handles most of the wastewater in the service area. The Dos Palmas Lift Station was constructed to convey wastewater to the Horton WWTF from a growing residential area south and down gradient of the Horton WWTF. Both facilities discharge to onsite evaporation/percolation ponds. The Nancy Wright Regional WRF, recently completed in September 2024, is a 1.5 MGD (1,680 AFY) facility that will accept flows formerly routed to the Horton WWTP. This treatment facility will expand the District's treatment capacity and provide treatment capacity for homes and businesses currently using a septic system that are to be connected to the MSWD collection system. The Dos Palmas Lift Station is planned to be redirected from the Horton WWTF and deliver flows to the Regional WRF (MSWD 2025b). MSWD plans to expand the Regional WRF to produce recycled water for beneficial reuse in the Mission Creek Subbasin.

8.3.2 Service Area Boundary

The service area boundary is shown in Figure 8-1.

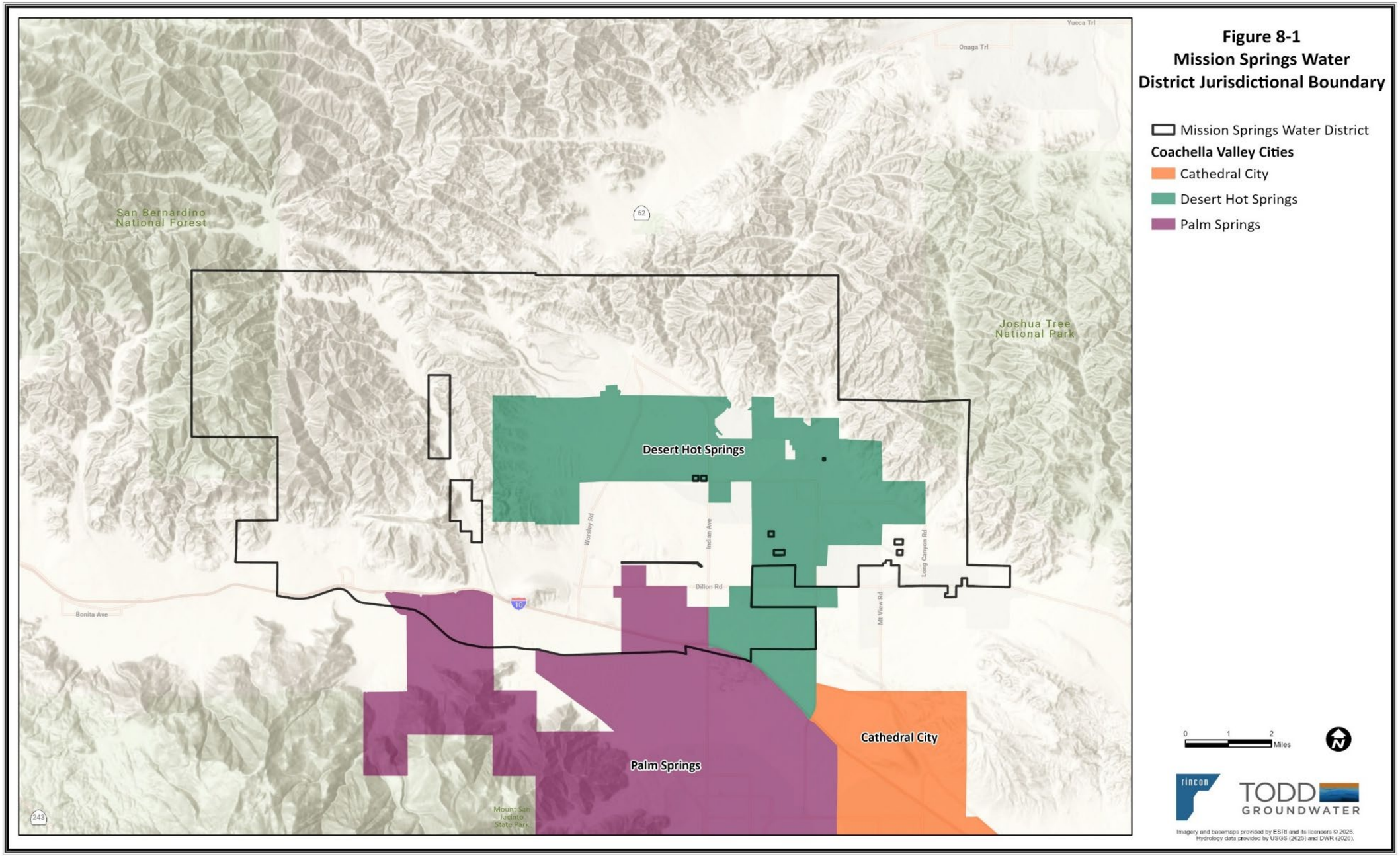


Figure 8-1. MSWD Service Area Boundary

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8.3.3 Service Area Climate

The climate of the Coachella Valley is arid characterized by low annual rainfall, low humidity, high summer temperatures, abundant sunshine, and relatively mild winters. MSWD has a desert climate with low rainfall and humidity and a large range between high and low temperatures.

Data from climate station at Palm Springs Airport represents climate in the MSWD service area. Monthly average high temperature reaches 106 degrees and monthly average low temperatures are 39 degrees. The average monthly ETo, rainfall, and temperatures for the MSWD service area are shown in Table 8-3 and are shown in Figure 8-2.

Table 8-3. Monthly Average Climate Data (Palm Springs Airport)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	71	74	81	87	95	104	109	108	102	91	79	69	89
Average Minimum Temperature (F)	48	50	54	59	66	73	79	80	74	65	53	46	62
Average Total Precipitation (in)	1.1	1.1	0.5	0.1	0.0	0.0	0.3	0.1	0.2	0.2	0.2	0.7	4.6
Evapotranspiration, ETo (in)	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

Notes:

Temperature and Precipitation from National Weather Service Forecast office, Station Palm Springs Airport. Data from 1991 through 2020. Accessed through https://www.weather.gov/wrh/Climate?wfo=sgx

ETo Data from California Irrigation Management Information System (CIMIS) Station 208, La Quinta II. Data from February 2007 through December 2020.

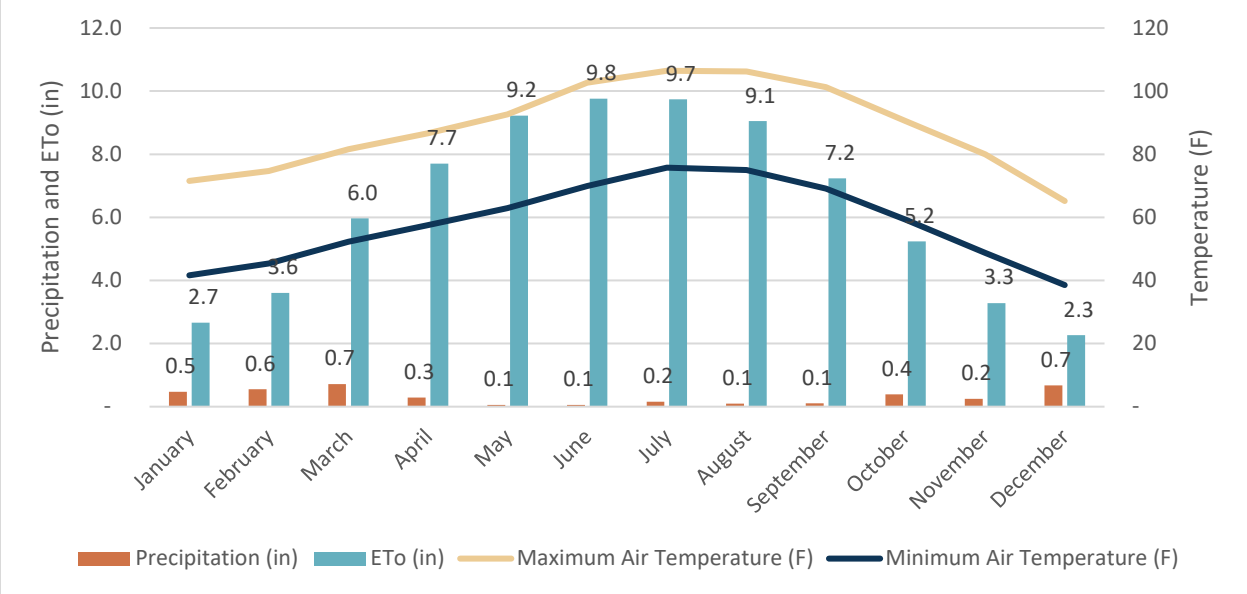


Figure 8-2. Monthly Average Climate Data

A discussion of the potential impacts of climate change on the region is included in Chapter 3 of the RUWMP.

8.3.4 Service Area Population and Demographics

This section describes the population and demographics within MSWD's service area. The District's water service area encompasses 135 square miles including the City of Desert Hot Springs, 10 smaller communities in Riverside County, and portions of the City of Palm Springs. The City of Desert Hot Springs makes up approximately 17 percent of the District's water service area (23 square miles). A majority of the District's water service area population resides inside the City of Desert Hot Springs.

Current and projected demographics within MSWD's service area were developed by SCAG as part of the 2024 Regional Transportation Plan referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

The growth forecasts in SCAG's Connect SoCal plan included estimates of population, households, and employment through 2050. The 2024 Connect SoCal update projects that the population of Riverside County will increase by approximately 50 percent through 2050. The 2024 update also notes that the region's population decline between 2019 and 2023 and attributes this decrease to COVID-19 pandemic impacts. Traffic and visitation declined during the pandemic, but has recovered to or exceeded pre-pandemic levels in most communities. SCAG notes that the median age is increasing and unpredictable events like the COVID-19 pandemic may cause significant deviations from projected long-term trends.

Population estimates were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 8-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). Household totals for 2025 were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within MSWD's service area using Census data.

The current and projected future population are shown in Table 8-4. Approximately 95 percent of the District's service connections are for residential use, and of those approximately 95 percent are single-family residential connections.

Table 8-4. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
MSWD	48,621	63,520	78,420	86,031	93,642	101,253

Demographic data for the City of Desert Hot Springs is summarized in Table 8-5.

Table 8-5. City of Desert Hot Springs Demographic Data

Age Distribution		Race/Ethnicity Distribution		Income and Household Size		Household Income Distribution	
Age	**Percent**	**Race/ Ethnicity**	**Percent**	**Parameter**	**Amount**	**Income**	**Percent**
19 years and under	27.7%	White	30.4%	Median household income	$33,046	$24,999 and under	38.4%
20-34 years	19.1%	Black	9.2%	Average household income	$46,178	$25,000-$49,999	30.3%
35-54 years	27.2%	Native American	0.7%	Per capita income	$18,076	$50,000-$74,999	14.3
55-64 years	12.4%	Asian/Pacific Islander	3.1%	Percent of Population Below Poverty Level	31.1%	$75,000-$99,999	8.0%
Over 65 years	13.6%	Hispanic	54.5%	Average Household Size	2.71	$100,000-$149,999	6.6%
		Other	2.1%			$150,000 and above	2.4%
Notes Reference: American Community Survey 2014-2019 (United States Census Bureau, 2021)							

8.3.5 Land Uses within Service Area

Existing land uses within the MSWD water service area are a mixture of residential, commercial, industrial, institutional, and open space. MSWD coordinates with the City of Desert Hot Springs and Riverside County on issues related to land use planning.

The area of the City of Desert Hot Spring's SOI, including the City and County-managed lands over which the City has an advisory role, constitutes approximately 40 percent (56 square miles) of MSWD's water service area. The City itself makes up approximately 17 percent of the District's water service area (23 square miles). Approximately 60 percent of the area within the City's SOI (including the City) is (or is planned to be) residential land use, with 50 percent of the residential land use categorized as low-density residential and residential estates. Approximately 23 percent of the land is categorized as open space and 17 percent of the land is categorized as CII.

The City completed an update of its General Plan in May 2020. The General Plan identifies policies and general categories of development envisioned for different areas within the City. In its regional growth forecast, SCAG also coordinated with each land use jurisdiction to coordinate growth projections with current and projected future land use.

To support the demand forecast in this RUWMP, MSWD reached out to each of the cities within the region to request information on additional known development plans or approvals that may not have been included in the 2024 Connect SoCal effort. This information has been incorporated into the RUWMP demand forecast.

8.4 Water Use Characterization

This section summarizes MSWD's current and projected urban water system demands. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

8.4.1 Non-Potable Versus Potable Water Use

MSWD currently produces 100 percent of its potable water supply from the Coachella Valley Groundwater Basin, primarily from Mission Creek Subbasin. MSWD does not purchase imported water from a water

wholesaler, although it does coordinate with DWA on replenishment of the groundwater basin with imported water.

District groundwater meets all Federal and State primary and secondary water quality standards without treatment (other than chlorination for disinfection) with the exceptions that groundwater from Well No. 26A is treated at each well to meet the primary water quality standard for uranium.

Currently, MSWD does not produce or use recycled water from the WWTPs in its service area.

8.4.2 Water Use by Sector

To support the demand forecast, MSWD has evaluated its water use for the past five years by customer sector. Water use is tracked by customer type, using MSWD's billing system. Water production is tracked by recording groundwater production from MSWD's wells. The urban demand sectors that apply to MSWD are summarized in Table 8-6.

Table 8-6. Water Use Sectors

Sector	Description
Single-Family Residential	Single-family residential customers constitute the majority of MSWD's customers.
Multi-Family Residential	Higher-density residential developments such as apartments and townhomes also contribute a significant portion of urban demand within the MSWD service area.
Commercial/Industrial/Institutional	MSWD serves commercial users consisting of retail, office, lodging, restaurant, and service businesses. Industrial and Institutional uses are a small portion of overall water use, and are combined with commercial uses for the purposes of this report.
Landscape	A portion of MSWD's outdoor water demand is served by dedicated landscape meters. These connections may be associated with large single family properties or multi-family, commercial, or institutional/governmental sites, but are considered a separate water use sector because the connection is solely for landscape irrigation.
Other	Other uses include authorized non-billed use (such as firefighting or flushing), and losses from the system.

MSWD does not sell water to any other agencies or districts and there are no plans to wholesale municipal water in the future. CWA does not use its potable water supply for any purpose other than domestic water.

8.4.2.1 Distribution System Losses

The difference between water production and metered water deliveries (billed to customers) is defined as non-revenue water. Non-revenue water includes authorized non-billed use (such as firefighting or flushing), and it includes losses from the system. MSWD has completed annual water audits through 2019 using the AWWA Water Audit Software. The results are summarized in Table 8-7. The completed audits are included in Appendix E of the RUWMP.

Table 8-7. DWR 4-4R 12 Month Water Loss Audit Reporting

Report Period Start Date		Volume of Water Loss (AFY)	Submitted to DWR Water Loss Audit Program
MM	YYYY		
01	2015	655	Yes
01	2016	717	Yes
01	2017	897	Yes
01	2018	823	Yes
01	2019	1,002	Yes

The real water loss performance standard for MSWD's distribution system is 21.0 gallons per connection per day, a 61 percent reduction from the State estimated baseline of 54.3 gallons per connection per day. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three

years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. MSWD's total water loss currently averages about 56.7 gallons per connection per day, with the most recent reporting year averaging 52.4 gallons of real water loss per connection per day. Table 8-8 shows MSWD's progress towards the 2028 Water Loss Standard.

Table 8-8. DWR 4-6R Progress Towards 2028 Water Loss Standard – Water Code Section 10631(d)(3)(C)

Public Water System ID #	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit Per Day	Units for Real Water Loss Drop Down List	Number of Units	Volume of Total Real Loss (AFY)	Real Water Loss Per Unit Per DAY
CA3310001	Yes	21.0	Gallons per Service Connection per Day (GPSCD)	256	15	52.7
Public Water System ID #	**Did the Water Board Calculate a Water Loss Standard for this Public Water System?**	**Apparent Water Loss**				
		State Water Board Standard		**Most Recent AWWA Water Loss Audit**		
		2028 Apparent Water Loss Standard per Unit per Day	**Units for Apparent Water Loss**	**Number of Connections**	**Volume of Total Apparent Loss (AFY)**	**Apparent Water Loss Per Unit per Day**
CA3310001	Yes	7.2	Gallons per Service Connection per Day (GPSCD)	256	4.0	Gallons per Connection per Day (GPSCD)

8.4.2.2 Summary of Current Uses

MSWD's urban water use for 2020 to 2025 is summarized in Table 8-9.

Table 8-9. DWR 4-1R Actual Demands for Water (AFY)

Use Type	Level of Treatment When Delivered	2020	2021	2022	2023	2024	2025
Single Family	Potable	4,489	4,566	4,509	4,273	4,433	4,381
Multi-Family	Potable	1,251	1,308	1,312	1,229	1,273	1,219
Commercial/Industrial/ Institutional	Potable	600	664	672	662	738	910
Landscape	Potable	1,251	1,308	1,312	1,229	1,273	1,219
Other	Potable	995	606	543	611	653	396
Total		**8,269**	**8,079**	**7,969**	**7,552**	**7,982**	**7,897**
Note: Other includes Non-Revenue water, which includes losses.							

8.4.3 Demand Forecast

MSWD is participating in the update of the Mission Creek Subbasin Alternate Plan being prepared to meet requirements of SGMA. The RUWMP agencies coordinated efforts with demand projections being prepared for the Mission Creek Subbasin Alternative Plan. The demand projection approach included the following steps:

1. The projections were based on SCAG's regional growth forecast prepared as part of their Regional Transportation Plan, Connect SoCal 2024. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area (SCAG 2024).
2. Additional analysis of vacancy rates was performed to estimated baseline and projected housing units for the study area.
3. Baseline and projected estimates of employment were used to drive future growth in CII demands
4. Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to the MSWD service area. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.
5. Water losses were estimated using the difference between supply and demand for the last five years (2020 to 2024).
6. Demands were adjusted for the following types of conservation savings:
    - Indoor passive conservation savings from the natural replacement of indoor devices and plumbing fixtures
    - Outdoor conservation savings from the implementation of the 2015 Model Water Efficiency Landscape Ordinance (MWELO) for future developments.
    - Outdoor conservation savings from turf replacement due to local rebate programs.
    - Outdoor conservation savings from the installation of smart irrigation controllers due to local rebate programs.
    - Outdoor conservation savings from the implementation of California's non-functional turf ban (AB 1572).

Projected municipal demands for MSWD's service area are shown in Table 8-10.

Table 8-10. DWR 4-2R Projected Demands for Water

Use Type	Additional Description	Projected Water Use (AFY)				
		2030	2035	2040	2045	2050
Single Family	Potable	4,604	5,255	5,667	6,098	6,529
Multi-Family	Potable	1,089	1,050	1,014	984	954
Commercial/Industrial/ Institutional	Potable	668	704	719	737	755
Landscape	Potable	856	954	1,074	1,194	1,314
Other	Potable	2,361	2,382	2,401	2,420	2,439
Subtotal Potable		**9,578**	**10,344**	**10,874**	**11,433**	**11,991**
Total		**9,578**	**10,344**	**10,874**	**11,433**	**11,991**
Note: Other represents Non-Revenue water, which includes losses.						

8.4.3.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above).. The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use) as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings." The model considers these mandates and the average useful life and replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture was based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014).

Anticipated outdoor water use savings were based on the implementation of the California MWELO which is the standard for outdoor water conservation for the state. The resulting water savings from the MWELO are estimated using an ETAF which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the non-functional turf ban, smart irrigation controllers, and turf replacement. Assembly Bill (AB) 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e., ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect commercial, institutional, and homeowner association owned properties. MSWD has rebates in place to encourage water conservation through the installment of smart irrigation controllers and turf replacement. These savings are not considered passive are they are implemented through incentives under conservation programs.

The anticipated passive savings due to these measures are summarized in Table 8-11. These savings have been incorporated into the water demand projections presented in Table 8-10.

Table 8-11. DWR 4-4R Passive Water Savings Projections (AFY)

Passive Savings	2030	2035	2040	2045	2050
Device Replacement	841	1,230	1,572	1,893	2,213
MWELO	305	519	679	832	985
Non-Functional Turf Ban	201	268	268	268	268
Total Passive Savings	**1,348**	**2,017**	**2,518**	**2,992**	**3,466**

8.4.3.2 Total Gross Water Use

As described in Section 8.6.2.5 below, MSWD intends to convey recycled water from the Regional WRF to new replenishment basins in Mission Creek Subbasin for groundwater recharge. This proposed new water supply is included in the forecasted water use for the District. Total projected gross water use, including both potable and recycled use, is shown in Table 8-12.

Table 8-12. DWR 4-3R Total Gross Water Use (AFY)

	2025	2030	2035	2040	2045	2050
Potable and Raw Water (AFY) From DWR Table 4-1R and 4-2R	7,982	9,578	10,344	10,874	11,433	11,991
Recycled Water Demand (AFY) From DWR Table 6-4R	0	0	1,120	2,200	3,600	5,000
Total Water Use	**7,982**	**9,578**	**11,464**	**13,074**	**15,033**	**16,991**
Note: Recycled water demands are discussed in Section 8.6 and are included in Table 8-18.						

8.4.4 Water Use for Lower Income Households

The SCAG Regional Housing Needs Assessment (RHNA) Housing Need by Income Category is used to develop projections of lower income housing units in future years. Lower income households are those with less than 80 percent of the area's median household income, adjusted for family size. The City will strive to meet their new construction goals of the RHNA. The demand for lower income households is included in the water use projections in Table 8-9. SCAG assigned a RHNA share of 1,104 low to extremely low housing units to the City of Desert Hot Springs for the 2021- 2029 RHNA period. The estimated water demand increase for these 1,104 lower income housing units is estimated at 336 AFY, which is included in MSWD's demand projections.

8.4.5 Climate Change Considerations

Potential impacts of climate change on water use in the region are discussed in Chapter 3 of the RUWMP.

8.5 SB7x7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that MSWD achieved its 2020 water use target in 2020.

8.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. MSWD selected to use Method 1, which was calculated based on the selected 10-year baseline of 289.7 GPCD. Using that criteria, MSWD's selected 2020 target was 234.9 GPCD.

8.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, MSWD's service area population and gross water use were compared to the SBx7-7 target.

The gross water used was determined from the annual production and storage records. Meter adjustments, exported water, distribution system storage, recycled water, and process water were not applicable to MSWD's distribution system. Therefore, meter adjustments, exported water, distribution system storage, recycled water, and process water were not included in the calculations. MSWD's water use was calculated as 189 GPCD for year 2020.

8.5.3 Supplier Met 2020 Target in 2020

MSWD met their 2020 target as reflected in Table 8-13 below, which includes their 2020 target and 2020 Actual GPCD. MSWD was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

Table 8-13 DWR 5-1R SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	234.9	189	Yes

8.6 Water Supply Characterization

This section describes and quantifies the sources of water available to MSWD.

8.6.1 Water Supply Analysis Overview

MSWD currently receives 100 percent of its water supply from the Coachella Valley Groundwater Basin via District owned and operated wells. The Mission Creek and Indio Subbasins are continuously replenished by DWA and CVWD with imported water. The Subbasins serve as an expansive conjunctive use resource that is capable of ensuring a sufficient and sustainable water supply to serve existing uses and projected growth during normal, single-dry and multiple-dry years over an extended planning horizon.

8.6.2 Supply Characterization

This discussion includes the types of water supply considered by DWR. As shown in Table 8-14, MSWD serves 100 percent of customer demands with groundwater.

Table 8-14. Urban Water Supply 2020-2024 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024
Groundwater	Mission Creek Subbasin	8,103	7,916	7,777	7,339	7,919
Groundwater	San Gorgonio Pass	77	60	58	76	20
Groundwater	Garnet Hill Subarea	88	103	134	138	43
Total		**8,269**	**8,079**	**7,969**	**7,552**	**7,982**

8.6.2.1 Purchased or Imported Water

MSWD does not use purchased or imported water. As described in Chapter 3 of the RUWMP, imported water is used on a regional basis for groundwater replenishment.

8.6.2.2 Groundwater

MSWD currently receives 100 percent of its water supply from groundwater produced from subbasins within the Coachella Valley Groundwater Basin, which underlies the District's water service area. All the subbasins except for the Desert Hot Springs Subbasin can provide potable water. The Desert Hot Springs Subbasin is a "hot-water" basin that is highly mineralized with water temperatures exceeding 100 degrees Fahrenheit and is not used to supply potable water. However, this hot, highly mineralized water is important to the local economy as it supports numerous spa resorts and hotels in and around the City of Desert Hot Springs.

MSWD primarily produces groundwater from the Mission Creek Subbasin, which is a shared groundwater aquifer with CVWD, DWA, and private groundwater pumpers, via eight active wells. To a lesser extent, MSWD also produces groundwater from the Indio Subbasin (the Garnet Hill Subarea) via three active wells; and the San Gorgonio Pass Subbasin via two active wells (MSWD, Water Master Plan Update 2025). More information about the Indio Subbasin is presented in Chapter 3 of the RUWMP.

Historical groundwater production is shown in Table 8-15.

Table 8-15. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Mission Creek Subbasin	7,916	7,777	7,339	7,919	7,745
Alluvial Basin	San Gorgonio Pass	60	58	76	20	53
Alluvial Basin	Garnet Hill Subarea	103	134	138	43	98
Total		**8,079**	**7,969**	**7,552**	**7,982**	**7,897**

Groundwater Quality

MSWD's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by CVWD meets all U.S. EPA and SWRCB guidelines (MSWD 2025c). In general, the existing groundwater quality from District wells is excellent. All urban water served by MSWD meets State and federal drinking water quality standards.

In 2024, the SWRCB set a new MCL of 10 ppb for hexavalent chromium (chromium-6) in drinking water. Found naturally throughout the Coachella Valley in rocks, soil, and water, chromium-6 can enter groundwater through both natural erosion and certain industrial processes. In response to regulatory requirements for chromium-6, MSWD is implementing a series of well rehabilitation, reactivation, and equipment upgrade projects to maintain production capacity and offset potential reductions associated with treatment requirements. While the majority of MSWD wells fall below the newly adopted limit, MSWD has temporarily taken four wells offline (without affecting system capacity) to prepare for future treatment upgrades. These improvements are part of MSWD's Chromium-6 Compliance Plan (MSWD 2025c).

In April 2024, the U.S. EPA announced new limits on the levels of PFAS permissible in water supplies. PFAS, or per- and polyfluoroalkyl substances, are a series of durable chemical compounds used for firefighting foams, waterproofing, stain-resistant items, non-stick cookware, fast-food wrappers, and takeout containers. Preliminary MSWD testing has shown PFAS levels are below the new, stricter water quality standards, and no current treatment is needed (MSWD 2025c).

MSWD is actively pursuing a program to properly place residences and businesses in the district on the MSWD water supply system and promoting the proper abandonment of unused or inactive wells. In addition, MSWD is converting residences and businesses currently on septic systems to the MSWD sewer collection and treatment system.

8.6.2.3 Surface Water

MSWD does not use, or plan to use, self-supplied surface water as part of its water supply.

8.6.2.4 Stormwater

MSWD is currently not using stormwater to meet local water supply demands. At this time, there are no plans to utilize stormwater, but that could change in the future.

8.6.2.5 Wastewater and Recycled Water

MSWD provides both water and wastewater services within its jurisdiction. The existing wastewater collection system for the MSWD water service area consists of approximately 45 miles of gravity sewers concentrated in the central portion of the study area where the majority of residents and businesses are located. Sewer service was first provided to the Desert Crest Country Club community in the early 1960s, with additional outlying tracts established in the early 1970s. Most of the MSWD sewer pipelines were constructed during the early 1970s and include lines along Ocotillo Road, Palm Drive, and Mission Lakes Boulevard. In the early 1980s, improvements to the pipeline system were added to tracts west of West Drive.

MSWD has maintained an active septic-to-sewer conversion program to protect groundwater quality and expand reliable wastewater service. Since 2005, approximately 3,520 parcels have been converted from septic to sewer service, resulting in approximately 7,700 sewered parcels within MSWD. In addition, MSWD recently initiated a new septic-to-sewer expansion effort that will convert more than 400 additional septic systems to municipal sewer service, further reducing nitrate loading risks and improving environmental protection.

Historically, MSWD operated two wastewater treatment plants: the Horton WWTP and the Desert Crest WWTP. In 2024, MSWD entered a significant new phase of wastewater system modernization with the commissioning and opening of the Nancy Wright Regional WRF.

Nancy Wright Regional Water Reclamation Facility (Regional WRF)

The Regional WRF began operations in early 2025 and represents a major investment in regional wastewater infrastructure. The facility is a 1.5 MGD Sequence Batch Reactor (SBR) treatment plant constructed on approximately 60 acres of District-owned property between 19th and 20th Avenues in Desert Hot Springs. The project included construction of a regional conveyance pipeline to direct flows to the new facility. The RWRF provides modern secondary treatment and was designed to allow for future expansion and the potential addition of tertiary treatment to support recycled water production. Its opening significantly enhances system reliability, operational flexibility, and long-term capacity planning. The facility now receives a portion of MSWD's wastewater flows and sends the water through percolation ponds for groundwater recharge after treatment. This reduces the hydraulic loading on the older treatment plants and positions MSWD for future recycled water and groundwater recharge initiatives.

For calendar year 2025, the Regional WRF averaged approximately 0.18 MGD as flows were gradually transitioned to the new facility following startup.

Horton Wastewater Treatment Plant (Horton WWTP)

The Horton WWTP, located on Verbena Drive approximately one-half mile south of Two Bunch Palms Trail, has a permitted capacity of 2.4 MGD and utilizes an extended aeration treatment process. Secondary effluent, which is not disinfected, is discharged to on-site percolation/evaporation ponds. Sludge generated during treatment is dewatered using a filter press and transported offsite for disposal. With the opening of the Regional WRF, flows to Horton WWTP have decreased compared to prior years. For calendar year 2025, the Horton WWTP averaged approximately 1.9 MGD, reflecting redistribution of flows to the new regional facility.

Desert Crest Wastewater Treatment Plant

The Desert Crest WWTP, located approximately one-half mile southeast of the intersection of Dillon Road and Long Canyon Road, has a capacity of 0.18 MGD and serves the Desert Crest Country Club development and associated mobile home park. The facility utilizes an extended aeration process and disposes of secondary effluent in on-site percolation/evaporation ponds. Sludge is dried in on-site beds and transported offsite for disposal.

For calendar year 2025, the Desert Crest WWTP averaged approximately 0.04 MGD, consistent with historical service levels.

Information about wastewater collected within the District's service area is provided Table 8-15. Information about wastewater treated and discharged in the District's service area is provided in Table 8-17.

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Table 8-16. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**	**WWTP Operation Contracted to a Third Party**
MSWD	Metered	2,120	MSWD	Alan L. Horton	Yes	No
MSWD	Metered	43	MSWD	Desert Crest	Yes	No
MSWD	Metered	152	MSWD	Nancy Wright	Yes	No
Total		**2,316**				

Table 8-17. DWR 6-3R Wastewater Treatment and Discharge within Service Area in 2025

Wastewater Treatment Plant Name	**Discharge Location Name or Identifier**	**Discharge Location Description**	**Wastewater Discharge ID Number**	**Method of Disposal**	**Plant Treats Wastewater Generated Outside the Service Area**	**Treatment Level**	**2025 Volumes (AFY)**				
							Wastewater Treated	**Discharged Treated Wastewater**	**Recycled Within Service Area**	**Recycled Outside of Service Area**	**Instream Flow Permit Requirement**
Alan L. Horton WWTP	CIWQS ID: 204870	Percolation ponds	7A330109012	Percolation ponds	No	Secondary, undisinfected	2,120	2,120	0	0	0
Desert Crest WWTP	CIWQS ID: 219649	Percolation ponds	7A330109021	Percolation ponds	No	Secondary, undisinfected	43	43	0	0	0
Nancy Wright Regional WRF	CIWQS ID: 864305	Percolation ponds	7A330104002	Percolation ponds	No	Tertiary	152	152	0	0	0
Total							**2,316**	**2,316**	**0**	**0**	**0**

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Recycled Water Planning

MSWD's water use efficiency efforts were originally guided by its 2004 Water Conservation Master Plan; however, conservation planning and long-term supply reliability are now addressed through more recent planning documents, including the District's 2025 Water Master Plan Update. These documents establish a planning horizon through 2045 and evaluate potable supply capacity, projected demand growth, and system reliability strategies.

Under prior System Reliability Initiatives, MSWD identified total water resource management, including development of recycled water for appropriate beneficial uses, as a long-term objective. MSWD's Water Efficient Landscaping Guidelines continue to require installation of recycled-ready irrigation systems (dual distribution systems) for applicable developments unless a written exemption is granted, thereby preserving the ability to implement recycled water service in the future.

MSWD completed a Recycled Water Program Development Feasibility Study in 2018, which evaluated treatment alternatives, distribution system concepts, and projected recycled water demands. The study concluded that recycled water infrastructure could feasibly be implemented for groundwater recharge and, subsequently, for landscape irrigation to offset potable demands. Recycled water use for groundwater basin replenishment would provide a beneficial impact to overall water balance calculations within the Mission Creek Subbasin.

Approximately 30 percent of potable water demand (after system losses) is conveyed to MSWD's wastewater collection system, reflecting the continued presence of septic systems within portions of the service area. As MSWD advances its septic-to-sewer conversion program and connects new customers, wastewater return flows are projected to increase to approximately 55 percent of potable demand by 2040. This projection is consistent with recent Southern California studies indicating that approximately 45 percent of potable demand becomes recoverable wastewater flow, combined with anticipated reductions in outdoor irrigation demand due to continued conservation.

Consistent with identified recycled water demands and projected system wastewater flows, MSWD envisions long-term expansion of recycled water infrastructure to accommodate up to approximately 5,000 AFY by 2045.

Estimates of future recycled water use are shown in Table 8-18. The District's projection from its 2020 UWMP is shown in Table 8-19.

Table 8-18. DWR 6-4R Recycled Water Within Service Area (AFY)

Name of Supplier Producing (Treating) the Recycled Water			Mission Springs Water District					
Name of Supplier Operating the Recycled Water Distribution System			Mission Springs Water District					
Supplemental Volume of Water Added in 2025			0					
Source of 2025 Supplemental Water			Not applicable (future planned use)					
Beneficial Use Type	**General Description of 2025 Uses**	**Level of Treatment**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**
Groundwater Recharge	None	Tertiary	0	0	1,120	2,200	3,600	5,000
Total			**0**	**0**	**1,120**	**2,200**	**3,600**	**5,000**

Table 8-19. DWR 6-5R Recycled Water Use Projection Compared to Actual

Use Type	2020 Projection for 2025 (AFY)	2025 Actual Use (AFY)
Landscape Irrigation (excludes golf courses)	0	0
Golf Course Irrigation	0	0
Total	**0**	**0**

Potential methods to expand recycled water use are shown in Table 8-20.

Table 8-20. DWR 6-6R Methods to Expand Future Recycled Water Use

Name of Action	Description	Planned Implementation Year	Expected Increase of Recycled Water Use (AFY)
Construct Plant & Build RW Distribution	Expand Regional WRF with tertiary treatment and construct distribution infrastructure	2035	1,120
Expand Plant and Build RW Distribution	Expand Regional WRF capacity and construct distribution infrastructure	2040	1,080
Expand Plant and Build RW Distribution	Expand Regional WRF capacity and construct distribution infrastructure	2045	1,400
Expand Plant and Build RW Distribution	Expand Regional WRF capacity and construct distribution infrastructure	2050	1,400
Total			**5,000**

8.6.2.6 Desalinated Water Opportunities

MSWD does not anticipate the future use of desalinated water within its service area, as the backbone facilities and infrastructure needed for desalination are not economically feasible.

8.6.2.7 Water Exchanges and Transfers

MSWD has not entered into any agreements for the transfer or exchange of water. However, MSWD cooperates with DWA and CVWD to support groundwater replenishments with their SWP Table A amounts and Advance Delivery Program.

8.6.2.8 Future Water Projects

MSWD has expanded its wastewater collection system significantly. The District has installed more than 33 miles of sewer pipelines, converted thousands of properties from septic systems to sewer service, and provided sewer service to more than 11,500 additional residents through these efforts. With the recent commissioning of the Regional WRF, MSWD's wastewater system now consists of multiple treatment facilities operating in an integrated manner to provide expanded capacity, improved operational flexibility, enhanced groundwater protection, and readiness for future recycled water production. The Regional WRF represents a significant modernization milestone for the District and supports ongoing septic-to-sewer conversions and long-term community growth.

This project is included as an expected future water supply in Table 8-21.

Table 8-21. DWR 6-7R Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier (AFY)
Nancy Wright Regional WRF	No	MSWD	Recycled water for non-potable use	2030	Average Year	1,120

8.6.2.9 Summary of Existing and Planned Sources of Water

MSWD currently receives 100 percent of its potable water supply from groundwater production and does not purchase imported water from a water wholesaler. However, groundwater conditions in the Indio and Mission Creek Subbasin are supported through groundwater replenishment efforts by CVWD and DWA. These agencies mitigate groundwater overdraft by recharging the basin with Colorado River water and SWP exchange water.

Beyond groundwater production, MSWD continues to plan for long-term supply reliability through recycled water development, including groundwater replenishment in Mission Creek Subbasin. The construction of recycled water infrastructure, including tertiary treatment facilities at the Regional WRF, is projected to accommodate future recycled water deliveries and enhance long-term water supply sustainability.

The actual supplies used by MSWD in 2025 are summarized in Table 8-22. MSWD's projected supplies through 2050 are summarized in Table 8-23.

Table 8-22. DWR 6-8R Actual Water Supplies

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume (AFY)	Water Type
Groundwater	Mission Creek Subbasin	7,746	Drinking Water
Groundwater	San Gorgonio Pass Subbasin	53	Drinking Water
Groundwater	Garnet Hill Subarea	98	Drinking Water
Total		**7,897**	

Table 8-23. DWR 6-9R Projected Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2030	2035	2040	2045	2050
Groundwater	All Subbasins	9,578	10,344	10,874	11,433	11,991
Recycled Water		0	1,210	2,200	3,600	5,000
Total		**9,578**	**11,464**	**13,074**	**15,033**	**16,991**
Note: Recycled water will be used for groundwater recharge and will not be a new demand. It is presented as a supply and a demand for consistency with the DWR reporting framework.						

8.6.2.10 Special Conditions

Although groundwater is a relatively resilient water supply with respect to climate change, potential effects of a hotter and drier climate could increase water demand within the Coachella Valley. The potential impacts of climate change on regional water supplies are discussed in Chapter 3 of the RUWMP.

8.6.3 Energy Use

MSWD has used available energy data to estimate the energy intensity of its water operations. In addition, MSWD completed a 1.0 mega-watt solar facility in 2019 that offsets approximately 35 percent of its energy consumption. The data are summarized in Table 8-24.

Table 8-24. DWR O-1A Energy Intensity Reporting

Table O-1A: Recommended Energy Reporting - Water Supply Process Approach				
Enter Start Date for Reporting Period	1/1/2025	**Urban Water Supplier Operational Control**		
End Date	12/31/2025			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AFY	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		7,897	N/A	7,897
Energy Consumed (kWh)		7,879,785	N/A	7,879,785
Energy Intensity (kWh/volume)		998	N/A	998
Quantity of Self-Generated Renewable Energy				
2,100,000	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption and production records maintained by the agency.				
Narrative				
The agency uses energy for groundwater production from wells, pumping at booster stations from lower pressure zones to higher pressure zones, and treatment processes. The agency produces energy at a 1.0 MW solar facility.				

8.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability by comparing total projected water use with expected water supply over the next 25 years in five-year increments, including a single dry year and multiple dry years. Reliability is a measure of water service systems expected success in managing water shortages. This chapter presents the reliability assessment for MSWD's service area.

8.7.1 Reliability Overview

MSWD's only direct source of urban potable water supply is local groundwater. Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions. Potential constraints on these supplies that could affect reliability are discussed in Chapter 3 of this RUWMP.

The "normal year" represents the average water supply conditions and availability to MSWD. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to MSWD. This RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. MSWD's water use data from the last 20 years was evaluated to understand demand response among its customer base. For MSWD, the single dry year demand represents 111 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to MSWD for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record,

it represents a more accurate demand response to drought conditions due to conservation programs implemented in recent years by MSWD. For MSWD, the multiple dry year demand increases by two percent year-over-year from 103 to 111 percent of normal conditions.

Table 8-25 summarizes the water years used as the basis for urban water supply reliability assessment and the percent of average supply available for each base year.

Table 8-25. DWR 7-1R Basis of Water Year Data

Year Type	Base Year	Available Supply if Year Type Repeats
		Percent of Average Supply
Average Year	2015-2024	100%
Single-Dry Year	2021	111%
Consecutive Dry Years 1st Year	2020	103%
Consecutive Dry Years 2nd Year	2021	105%
Consecutive Dry Years 3rd Year	2022	107%
Consecutive Dry Years 4th Year	2023	109%
Consecutive Dry Years 5th Year	2024	111%

8.7.2 Water Service Reliability Assessment

The reliability of the groundwater supply is dependent on reliable sources to replenish water extracted from the groundwater basin. To ensure a safe and reliable supply, regional water suppliers collaborate to manage groundwater via the Indio Subbasin Alternative Plan and Mission Creek Subbasin Alternative Plan.

The only current direct water source to MSWD is local groundwater. The reliability of MSWD's water supply is dependent on the reliability of groundwater supplies, supplemented by imported surface water used for groundwater replenishment and the planned implementation of recycled water supply.

MSWD's ability to meet demands during the type of year scenarios described above is determined by an analysis of the available water supplies within MSWD's water service area in each scenario. Considering the groundwater basin management efforts presented throughout this RUWMP, the historical groundwater supply availability during these scenarios is assumed to be fully reliable and an accurate assumption for future reliability.

8.7.2.1 Normal Year

Projected normal-year average annual District supplies and demands are shown in Table 8-26. This analysis does not include WSCP use reduction in a normal year. The supply and demand comparison for the normal year results in no shortages.

Table 8-26. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	9,578	11,464	13,074	15,033	16,991
Demand Totals (AFY) From DWR Table 4-3R	9,578	11,464	13,074	15,033	16,991
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**

Note: Recycled water used for groundwater recharge is presented as a supply and a demand for consistency with DWR reporting framework.

Note: 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.

8.7.2.1 Single Dry Year

The single dry year represents a "worst-case" scenario for demand response, jumping to 111 percent of normal conditions in a single year. Due to the reliability of the region's groundwater basin, water supply availability during a single-dry year scenario was assumed to be similar to the average year scenario. Projected single dry year District supplies and demands are shown in Table 8-27. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable as groundwater in storage in the Mission Creek Subbasin is available to serve increased demand. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 8-27. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	10,631	12,602	14,271	16,290	18,310
Demand Totals (AFY)	10,631	12,602	14,271	16,290	18,310
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**

Note: Recycled water used for groundwater recharge is presented as a supply and a demand for consistency with DWR reporting framework.

Note: 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.

8.7.2.2 Multiple Dry Years

Reliability during a multiple-dry year scenario was assumed to be similar to the average year scenario for reasons discussed previously. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. It is assumed that MSWD's WSCP would be implemented in the second year of a multiple-dry-year period, reducing some of the increased demand. This reliability forecast conservatively assumes that the WSCP will reduce water use by five percent in the second through fifth years of a multiple year drought. Projected multiple dry-year average-annual District supplies and demands are shown in Table 8-28. The multiple dry year urban water supply reliability is 100 percent, as groundwater in storage in Mission Creek Basin will be used to supplement increased demand. In five consecutive dry year conditions, there are no shortages.

Table 8-28. DWR 7-4R Multiple Dry Years Supply and Demand Comparison

	2030	2035	2040	2045	2050
First Year					
Supply Totals (AFY)	9,865	11,774	13,401	15,376	17,351
Demand Totals (AFY)	9,865	11,774	13,401	15,376	17,351
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply Totals (AFY)	10,057	11,981	13,618	15,604	17,591
Demand Totals (AFY)	10,057	11,981	13,618	15,604	17,591
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	477	515	541	569	597
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	10,248	12,188	13,836	15,833	17,831
Demand Totals (AFY)	10,248	12,188	13,836	15,833	17,831
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	486	524	551	580	608
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	10,440	12,395	14,053	16,062	18,070
Demand Totals (AFY)	10,440	12,395	14,053	16,062	18,070
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	495	534	562	591	619
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fifth Year					
Supply Totals (AFY)	10,631	12,602	14,271	16,290	18,310
Demand Totals (AFY)	10,631	12,602	14,271	16,290	18,310
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	504	544	572	601	631
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

Note: Recycled water used for groundwater recharge is presented as a supply and a demand for consistency with DWR reporting framework.

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

Historically, the groundwater basin has shown signs of overdraft, which could impact reliability in the long term. The implementation of ongoing groundwater management efforts (see Chapter 3 of the RUWMP) seeks to ensure groundwater levels are maintained to mitigate potential overdraft conditions of the basin. MSWD also continues to implement DMMs to decrease the annual volume of water consumed, along with recycled water for future groundwater replenishment.

8.7.3 Drought Risk Assessment

The five-year Drought Risk Assessment (DRA) is intended to evaluate current water supply availability by simulating demand and supply for the next five years under multiple dry year conditions.

Demands are expected to increase from current 2025 demands based on the assumptions during multi-dry year periods. For MSWD, the multiple dry year demand increases by two percent year-over-year from 103 to 111 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands from existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify a potential shortage are described in the WSCP. Based on the reliability analysis in Section 8.7, the supply of groundwater is fully reliable under a five-year drought, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 8-29. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 8-29. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	8,134
	Total Supplies (AFY)	8,134
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/(Shortfall)	0
	Resulting Percent Use Reduction from WSCP Action	0%
2027	Gross Water Use (AFY)	8,292
	Total Supplies (AFY)	8,292
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	375
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	5%
2028	Gross Water Use (AFY)	8,450
	Total Supplies (AFY)	8,450
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	382
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	5%

2029	Gross Water Use (AFY)	8,608
	Total Supplies (AFY)	8,608
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	389
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	5%
2030	Gross Water Use (AFY)	8,756
	Total Supplies (AFY)	8,756
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	397
	Revised Surplus/(Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	5%

[1]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.

8.8 Water Shortage Contingency Plan

MSWD has developed a WSCP that outlines its strategy for assessing and responding to potential water shortages. Building on the region's overall high water supply reliability, the WSCP prepares for risks such as prolonged drought, infrastructure failure, regulatory restrictions, contamination, and other emergencies. It establishes procedures for annual water supply and demand assessments, coordination among regional water agencies, and use of six standardized shortage levels that range from minimal conservation requirements to severe, mandatory restrictions when more than 50 percent supply reduction occurs.

To manage shortages, the WSCP details a suite of supply augmentation methods, demand reduction actions, operational adjustments, communication protocols, and enforcement mechanisms. Actions escalate by shortage level and may include outdoor irrigation limits, reduced water budgets, expanded public outreach, drought surcharges, mandatory rationing, and prohibitions on potable outdoor use. The WSCP also describes financial implications, monitoring and reporting requirements, seismic risk considerations, and emergency response coordination with regional partners. It sets forth legal authorities supporting plan implementation and provides the procedures for adoption, future amendments, and public engagement.

The MSWD WSCP is included in Appendix C of this RUWMP.

8.9 Demand Management Measures

The goal of the Demand Management Measures (DMM) section is to provide a comprehensive description of the water conservation programs that the District has implemented, is currently implementing, and plans to implement to increase water use efficiency.

8.9.1 Existing Demand Management Measures

MSWD has made the State-mandated DMMs a key element in the overall water resource management strategy. MSWD is dedicated to implementing water conservation measures, as demonstrated in the District's 2004 Water Conservation Master Plan. The Water Conservation Master Plan defines a series of sensible water conservation activities that complement the unique water resource characteristics of MSWD's service area. The Plan represents a qualitative effort at identifying and screening potential

conservation initiatives and the data will assist MSWD in determining which initiatives should be continued to meet long-term conservation objectives.

As part of the Water Conservation Master Plan, MSWD identified factors affecting water conservation within its service area. Significant factors are impacting water use include the following: limited availability of water as a resource in Coachella Valley; MSWD's 100 percent dependency on groundwater as a water source; lack of other potable water sources and limited emergency interconnections; assessments to DWA for future imported water supply; continued new residential development in the City of Desert Hot Springs; risk of future degradation of groundwater supplies from septic systems, and commercial and industrial development; and the need to implement costly new sources of water (reclamation/conjunctive use, etc.).

The water conservation principles identified in MSWD's Water Conservation Master Plan were outlined and include detailed tasks. Overall, the District aims to employ the following principles:

- Clarify and summarize MSWD's conservation programs, reflecting conservation commitments made through the UWMP and other programs.
- Ensure that the conservation measures adopted by MSWD treat all customers fairly and equitably.
- Do not create undue pressure on revenue stability resulting in water costs exceeding local socio-economic conditions.
- Identify and establish measurable conservation targets to be accomplished by MSWD within a reasonable period of time.
- Develop sensible approaches for practical, cost-effective and efficient conservation programs which anticipate and serve the long-term needs of MSWD customers.
- Facilitate MSWD's ability to provide a dependable, reliable supply of water.

The District's implementation of the DMMs and other water conservation measures are discussed below.

8.9.1.1 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 education programs in schools, community and bimonthly billing information; tiered water pricing that encourages conservation; updated water shortage ordinance; water audits for the largest users; and rebates for water efficient plumbing fixtures.

Chapter 5.02.040 General Rules (Ordinance 1993-03) provides a statement that customers who knowingly waste water may have their service discontinued by MSWD if conditions are not corrected after being given a violation (MSWD 2025a).

8.9.1.2 Metering

MSWD maintains water meters on all residential, commercial, industrial and municipal connections to it's water distribution system.

MSWD has an aggressive meter replacement program. Meters are re-built or replaced on a multi-year cycle to ensure accuracy and proper functioning. The District's water system is fully metered. Therefore, 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 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.

8.9.1.3 Conservation Pricing

MSWD has a tiered rate structure for water service within its service area. The tiered rate structure is intended to discourage high water use. MSWD may also enact a drought surcharge, as required by Statewide drought measures. For example, during the 2016 California Drought, MSWD implemented a temporary $0.05 per hundred cubic feet drought surcharge, consistent with State drought requirements. MSWD currently imposes a fixed monthly charge based on meter size and a three-tiered rate structure that impose high rates as water use increases per 100 cubic feet. Most of MSWD's water customers also receive sewer service from the District. MSWD imposes rates for sewer service based on maximum potential water usage, billed at a uniform rate for single-family and multi-family residential customers. Commercial sewer service fees are based on water usage and also promote water conservation.

8.9.1.4 Public Education and Outreach

MSWD maintains a website (www.MSWD.org) which provides a wide variety of conservation information on Methods to reduce water use; Watering restrictions; A dedicated conservation page; 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. There is also a section on the MSWD website to report water waste or unauthorized use to the Agency via Survey123 form.

MSWD has also actively leveraged social media platforms like Facebook and Instagram to share campaign visuals, promote rebate deadlines, and celebrate community participation. These posts include graphics, testimonials, and seasonal reminders that align with conservation themes. Additionally, collaborations with local HOAs and property managers—such as the Skyborne & Desert Resort Management Partnership—have enabled targeted outreach through email campaigns and digital flyers. These integrated communication efforts have helped MSWD reach a broader audience, foster community engagement, and drive measurable participation in water-saving programs. Social media campaigns have been used to share visually engaging content that highlights rebate opportunities and conservation success stories, with posts that include graphics and calls to action aligned with seasonal outreach efforts. Targeted mailers and press releases have also been distributed to reinforce messaging around conservation goals and rebate availability, helping to reach residents who may not engage digitally. These communication efforts have played a vital role in increasing public awareness and driving participation in MSWD's conservation programs, particularly among disadvantaged communities in Desert Hot Springs and surrounding areas.

Moreover, MSWD has partnered with Southern California Edison (SCE) and Southern California Gas Company (SCGC) in school education outreach programs that provide information to children to learn the importance of water conservation.

The Groundwater Guardian Program is a community educational program developed by The Groundwater Foundation, a private, non-profit educational organization recognized internationally (see https://groundwater.org/groundwater-guardian/). "Designation as a Groundwater Guardian Community is presented by The Groundwater Foundation to communities which demonstrate an ongoing participatory approach to protecting groundwater resources." "For continuing designation as a Groundwater Guardian, a community must submit an Annual Entry Form and proposed ROA (Result Oriented Activities) Plan(s) by February each year; continue ongoing activities; and submit an Annual Report in August each year." For more information about The Groundwater Foundation and/or the Groundwater Guardian Program see www.groundwater.org.

The Desert Hot Springs community has three Groundwater Guardian Teams and a Groundwater Guardian Affiliate:

- Desert Hot Springs Groundwater Guardian Team (Community - 1st Designated in 1995)
- Mission Springs Water District (Affiliate - 1st Designated in 1997)
- Desert Hot Springs High School (nation's 1st Groundwater Guardian Campus Team - 1st Designated in 2000)
- Desert Springs Middle School (Groundwater Guardian Campus Team - 1st Designated in 2004)

MSWD regularly publishes the *Water Matters* newsletter, which features updates on rebate programs, conservation tips, and success stories. Notable editions from June, July, September, and December 2025 have spotlighted initiatives such as smart irrigation controllers and turf replacement incentives. Strategic billboard placements have been used to visually reinforce conservation messaging and direct residents to available rebates and resources.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (https://cvwatercounts.com/) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts Program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact.

8.9.1.5 Programs to Assess and Manage Distribution System Real Losses

MSWD is currently using a wide range of operational policies and practices to ensure the efficient use of its water supply. MSWD 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.

MSWD conducts water audits and leak detection through various District activities focused on finding and correcting water losses. Field crews visually survey the system as they travel throughout MSWD's service area on a daily basis. MSWD's telemetry system, and newly implemented AMI system, also enhances the ability to locate and correct large leaks expeditiously. Leak monitoring is accomplished by all operations field personnel. In the event of a leak, prompt response and investigation are communicated to MSWD by customers and other entities. Leak and other system losses (fire flows) are calculated monthly and recorded in a database.

MSWD demonstrates to all customers how to identify toilet leaks using dye tablets. At public outreach events, MSWD provides the dye tablets at no charge and offers a pamphlet on how to use them. MSWD encourages landlords to make them available to tenants. Finally, the availability of the free tablets is advertised on the MSWD website, stating that customers may come into the District lobby and pick up tablets at no charge. MSWD also offers Indoor Water Conservation kits at no charge to customers. The kits include faucet and kitchen aerators, low-flow shower head, leak detection tablets, and toilet tank, toilet fill cycle divertor. This has been advertised on the MSWD quarterly newsletter as well as the website. Customers are encouraged to reach out to MSWD and the District mails one out to them at no additional charge.

MSWD works diligently to confirm that the appropriate parties are billed for water loss resulting from damaged fire hydrants, air-vacuums, blow offs, dig-ins, etc. In addition, monthly monitoring of "unaccounted-for" water losses assists in identifying leaks.

To evaluate the effectiveness of these conservation measures, MSWD finance staff will continue to review the data records to confirm that unaccounted-for water remains low and consistent. Following MSWD's proactive measures, unaccounted-for water losses have reduced to between 3 and 5 percent of total supply over the last five years. Industry guidelines have established a standard rate of water savings based on the repair of a distribution line: a 1-inch crack in a distribution main at 100 pounds per square inch (PSI) can leak 57 gallons per minute. Cost and savings depend on the age of infrastructure for the water system.

MSWD implements programs on leak detection and repair, metering, meter replacement, system flushing, reservoir cleaning and maintenance, valve maintenance and mapping. MSWD continued reviewing distribution system operational procedures and maintenance practices with appropriate field and administrative staff, as detailed in the 2004 Water Conservation Master Plan. These measures will ensure system reliability. The hydrant flushing program will be reviewed for its scope and timing, as well as to determine how much water is lost during flushing.

The Desert Willow waterline replacement project included 8,200 linear feet of 8-inch ductile iron pipe which will replace aging 8-inch PVC water lines, and 153 service line replacements. In 2010, MSWD saw approximately 800 service line leak which triggered a service line replacement program. On average MSWD budgeted $100,000-$120,000 annually to replace poly service lines. In 2020, MSWD was seeing approximately 230 service line leaks annually. Over the last decade, MSWD has also implemented seismic valve controls on MSWD's reservoirs to mitigate water loss during a sizable earthquake event. MSWD also implemented additional water loss tracking at well sites with the installation of flow meters on the pump to waste lines for each well. Most wells will also discharge to drywells or ponds onsite, allowing water to percolate back into the groundwater aquifer in lieu of running off the well sites.

In 2019, MSWD began a system wide AMI program. Since deploying the AMI system, MSWD has seen a substantial decrease in calls to deploy a technician to the property to check the meter for high bill calls or the check reads as MSWD has daily/hourly flow data available through the Neptune 360 dashboard. The system allows MSWD staff to resolve identify issues related to high consumption and resolve them quickly with customers.

8.9.1.6 Water Conservation Program Coordination and Staffing Support

MSWD 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.

MSWD continues to be involved in water conservation programs and coordinates with the four other water agencies of the Coachella Valley through the CVRWMG and CV Water Counts (www.cvwatercounts.com) regional conservation group.

8.9.1.7 Other Demand Management Measures

MSWD, in concert with the SCE and SCGC, has developed a number of consumption reduction/ conservation program methods for residential, landscape, and commercial/ industrial/institutional customers that include:

- Water Use Surveys/Audits
- Rebates or Giveaways of Plumbing Fixtures and Devices
- Rebate Programs including:
    - Turf conversion
    - High Efficiency Toilets
    - Smart Irrigation Controllers
    - High Efficiency Washing Machines
- Leak detection and monitoring program
- Evaporative cooler maintenance and assessment program

Large landscape irrigation surveys are offered to cost effectively achieve quantifiable water savings. The audits are performed in conjunction with MSWD's Efficient Landscaping Guidelines, adopted by the District board on December 20, 2004. The guidelines establish effective water efficient landscape requirements for newly installed and rehabilitated landscapes, as well as promote water conservation through climate appropriate plant material and efficient irrigation practices.

Section 0.00.040 of MSWD's Landscaping Guidelines outlines provisions for landscape water audits. Under the Guidelines, all landscaped areas which exceed 1.0 acre (43,560 square feet), including golf courses, green belts, common areas, multifamily housing, schools, businesses, public works, parks, and cemeteries, may be subject to a landscape irrigation audit at the discretion of MSWD if the District determines that the annual maximum applied water allowance has been exceeded for a minimum of 2 consecutive years. At a minimum, the audit will be conducted by a certified landscape irrigation auditor and shall be in accordance with the California Landscape Irrigation Auditor Handbook, the entire document which is hereby incorporated by reference.

The Guidelines also require an irrigation design plan, which includes the installation of separate landscape water meters for all projects except for single-family homes or any project with a landscaped area of less than 2,500 square feet. Automatic control systems shall be required for all irrigation systems and must be able to accommodate all aspects of the design. Mechanical irrigation controllers are prohibited. Plants that require different amounts of water shall be irrigated by separate valves. If one valve is used for a given area, only plants with similar water use shall be used in that area. Anti-drain valves shall be installed in strategic points to prevent low-head drainage. Sprinkler heads shall have application rates appropriate to the plant water use requirements within each control valve circuit. Scheduling aids, including soil moisture sensing devices and ET controllers, are required and recommended, respectively. Emitters shall have applications rates appropriate to the plant water use requirements within each control valve circuit.

Since early 2002, MSWD has been an active participant along with various Coachella Valley area public agencies and private sector organizations to develop a standardized landscape ordinance appropriate to the arid desert climate. The resulting Coachella Valley-Wide Water Efficient Landscape Ordinance (Ordinance No.1302 adopted by CVWD on March 25, 2003) is designed to ensure consistency of landscape water efficiency standards and applies to new and rehabilitated landscapes within the Valley. A key feature of the Ordinance is a 25 percent reduction in landscape water use. This savings is achieved by changing the plant water-use coefficient factor in the formula originally established by AB 325 from 0.8 to 0.6. With this ordinance, new landscaping for any parcel in the Coachella Valley can use no more than 60 percent of the water required for an equivalent sized parcel completely planted in grass.

The City of Desert Hot Springs adopted the District's Efficient Landscaping Guidelines, and incorporated them into its Ordinance No. 2005-02, which establishes a Water Efficient Landscaping Ordinance within the City's boundaries. The Ordinance was updated and revised in 2009 and subsequently readopted again by the City. The City's Ordinance directly follows the District's Ordinance as applicable to the City's jurisdiction. In other jurisdictions served by the District, the Riverside County Planning Department and the City of Palm Springs require compliance with the District's Landscaping Guidelines as a condition of new building permits and/or certificates for occupancy. The current Ordinance No. 17.56 provides updated landscaping standards and guidelines (Desert Hot Springs 2025).

The adoption of MSWD's Guidelines by the City of Desert Hot Springs, and its consistency with CVWD and City's water conservation measures, demonstrates MSWD's commitment to regional collaboration and support for the implementation of large landscape conservation programs.

MSWD's Water Conservation Master Plan sets forth an initiative to require water efficient practices in landscape plans and irrigation systems of all new or substantially rehabilitated residential and commercial development projects.

In late 2003, MSWD assumed a leadership role in landscape water conservation by partnering with a local builder to develop a series of cost-effective and aesthetically pleasing landscape design options for the builder's new residential tract. The landscape solutions emphasized the use of native desert and other water-conserving plants, in concert with water efficient irrigation systems. A key goal of this joint venture was to satisfy the maximum applied water allowance budget established by the Coachella Valley-Wide Water Efficient Landscape Ordinance. The landscape designs jointly developed between the District and the builder also reflect several factors important to homeowners, including the style of landscaping, the maintenance demands and water use of a particular design option, and cost. This collaborative effort has resulted in over 30 percent of the homes in Phase 1 of the project featuring water wise landscaping. MSWD's leadership and innovation was recognized by the water community when the Association of California Water Agencies (ACWA) presented the District with the Theodore Roosevelt Environmental Award in 2004 for the Lifestyle Landscaping Program.

MSWD was part of the Riverside County Conservation Task Force to create the Riverside County Water Use Efficiency Ordinance. MSWD was an active member of the Task Force to encourage approval and adoption of the ordinance among stakeholders, including County Supervisors, planning agencies, cities, and water districts. To date, a water budget approach has been recommended to allow customers flexibility and does not dictate design implementation. In addition, the Task Force evaluated the use and inclusion of Weather Based Irrigation Controllers (WBIC), enforcement of the Ordinance, support from stakeholders, and emphasis on education as key components of the implementation. The Task Force developed the Model (draft) Ordinance in 2008/09 with compliance by local cities by January 1, 2010.

MSWD provides resources to assist residents in planning and implementing a desert- friendly landscape. Residents within the MSWD service area are provided with the steps for water conservation measures in their homes and businesses under the following three categories of land uses: Residential Landscape Makeover, Landscape Planning (in-fill projects which require a building permit), and Landscape Planning (tract projects). The steps for each category are summarized below.

MSWD continues to recommend water-wise and desert-friendly plant materials in homes and businesses. Desert-friendly landscape styles include the following: Arid, Semi-Arid, and Lush & Efficient. Arid landscapes include slower growing, low water use plant materials and often incorporate decorative rock or mulch into the landscape design. A 2000-square foot, Arid landscape design will use about 29,000 gallons of water per year. Semi-Arid landscapes use plant materials similar to Arid, but may also include a limited turf area for pets and children, if needed.

The Semi-Arid style may include a mix of low and medium water-use plants. A 2000 square foot, Semi-Arid landscape will use about 38,000 gallons of water per year. Lush & Efficient landscapes may incorporate high water use plants or a larger amount of grass. Careful, ongoing maintenance of the irrigation system is a must, as well as shaping the turf areas to conform to sprinkler patterns and avoid runoff. A 2000 square foot, Lush & Efficient landscape will use about 56,000 gallons of water per year. A turf lawn requires heavy maintenance and uses about three times more water than the Semi-Arid landscape. Turf lawns also look out of place, and do not blend in with the desert's natural beauty. A 2,000 square foot turf landscape will use about 96,000 gallons of water per year.

MSWD also refers its service area residents to the following links for further information:

- The New Mexico Office of the State Engineer 5-step guide to creating a water-wise landscape, called "Xeriscape 101: A Step-by-Step Guide to Creating a Water-Wise Yard." http://www.ose.state.nm.us/water-info/conservation/xeriscape-101.html.
- Gallery of California Heritage Gardens: http://www.bewaterwise.com/Gardensoft/garden_gallery.aspx
- CVWD's guide, "*Lush & Efficient: Gardening in the Coachella Valley*," contains information on topics such as "The Ingredients of a Desert Garden," "Grouping Plants by Sun and Water Needs," and "How Much and When to Water." It also includes a month-to-month gardening calendar for the Coachella Valley and a vast plant database. "Lush & Efficient" can be ordered from CVWD or you can browse the online version at: http://cvwd.org/lush&eff.htm.
- The Southern Nevada Water Authority has useful information on general landscape tips at: http://www.snwa.com/html/ws_landscape_tips.html
- The Alliance for Water Awareness and Conservation (AWAC) provides featured plant updates at: http://www.hdawac.org/
- The Water Education Water Awareness Committee (WEWAC) provides monthly plant features at: http://www.usewaterwisely.com/potm.cfm
- MSWD Mission: conservation - Plant Guide provides a custom search tool for water efficient plants and provides calculation on water use and other helpful information for turf replacement and new landscaping, at: http://topratedms.azurewebsites.net/

On its website, MSWD also provides a water budget calculator to assist residents in figuring out what their water allowance is and how the landscape alternatives fit into the allowance. MSWD provides detailed instruction on how to use the calculator, including determining square footage of landscape and annual maximum water allowance for landscape. Based on the calculations, a type of irrigation will be suggested, for example, drip irrigation (non-turf), and the recommended area in which to use spray irrigation.

MSWD then provides a step by step process for selecting the types of plants that will meet the recommended irrigation methods and landscape size. The water use calculator estimates the amount of water that the selected landscape and plant materials will use on an annual basis. Next, MSWD provides recommendations on design and installation of an efficient irrigation system. MSWD encourages public consultation of the District staff as a source of information.

8.9.2 Implementation of DMMs

The majority of the water conservation programs implemented within MSWD's service area have been conducted in coordination with the SCGC. MSWD's best understanding of the nature and extent of these programs over the past five years is reflected in the descriptions above. MSWD has seen reduced water consumption and notification of water waste.

The Mission Springs LivingWise® Program, a school-based energy efficiency education program, is designed to generate immediate and long-term resource savings by bringing interactive, real-world education home to students and their families.

Originally implemented in 2015-2016, MSWD opened the Turf Renate Program back up on May 19, 2021 to incentivize the removal of high water consuming turf grass (and/or significant groundcover plant materials that are similar in water demand) and replace it with desert-friendly, water-efficient landscaping. The program is 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 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. Currently, residents can earn up to $3,000 in rebate per project and commercial property owners can receive up to $10,000 per project. Each project would receive $2 per square foot of turf removed. Overall, from 2021 to 2025, the Turf Conversion Program issued a total of $87,152 in rebates and supported the conversion of over 40,000 square feet of turf. More than 21 projects were fully funded, with additional applications pending or in progress.

MSWD launched the Toilet Rebate Program on June 2, 2020 to promote water conservation by encouraging the replacement of older, inefficient toilets with high-efficiency models. The program offers financial incentives to residential customers who meet eligibility requirements and submit the necessary documentation. From 2020 to 2025, the program issued over $33,893.78 in rebates to more than 148 recipients. Most applicants were individual homeowners, although some multi-unit properties and commercial entities also participated. The District currently offers up to a $100 rebate for ultra-efficient toilets that use 1.28 gallons per flush (gpf) and up to $150 for premium-efficient toilets that use 1.1 gpf.

Additionally, the District offers a Washer Rebate Program to encourage water and energy conservation through the purchase and installation of a high-efficiency washing machine. The District currently issues rebates up to $150 for the purchase of a high-efficiency washing machine that has a 6 or lower water factor. As reflected in the 2024-2025 entries, the program issued a total of $2,250 in rebates to 16 recipients, including both homeowners and renters.

MSWD launched the Smart Controller Rebate Program on June 2, 2020, to promote water conservation using smart irrigation technologies. Rebates are currently offered up to $150 for the device and $100 for professional installation for single-family homes, while commercial/HOA properties are offered up to $5,000 for the devices (with MSWD reimbursing 100 percent of the cost up to the first $2,500 and 75 percent of the remaining costs up to $5,000) and up to $750 for professional installation. Between 2023 and 2025, the program issued a total of $8,328.18 in rebates to 21 recipients.

A summary of MSWD conservation DMMs for the years 2020 through 2025 is shown in Table 8-30.

Table 8-30. Summary of DMM Implementation (2020 – 2025)

Conservation Type	Quantity					
	2020	2021	2022	2023	2024	2025
Residential Turf Replacement (# completed)		2	5	12	2	1
Residential Turf Replacement ($ Paid)		4,320	8,132	36,460	3,340	34,920
Total Turf Replacement for Residential and Commercial (Square Feet Completed)	-	-	-	-	-	>40,000
Total Turf Replacement for Residential and Commercial ($ Paid)	-	-	-	-	-	87,152
Toilet Rebates (# completed)	7	27	37	39	27	11
Toilet Rebates ($ Paid)	1,100	7,154	9,498	4,800	4,762	6,483
Washer Rebates (# completed)	-	-	-	-	-	16
Washer Rebates ($ Paid)	-	-	-	-	-	2,250
Smart Controller Rebates (# completed)	-	-	-	3	12	6
Smart Controller Rebates ($ Paid))	-	-	-	857	900	6,571

8.9.3 Implementation to Achieve Water Use Targets

Through the implementation of MSWD water conservation ordinances and measures, total per-capita MSWD water use significantly dropped from 308 GPCD in 2005 to 189 GPCD in 2020 (a reduction of 38 percent). Many of the water conservation measures already implemented and being implemented by MSWD customers such as turf removal, conversion to drought resistance landscapes, turf replacement, conversion to more efficient irrigation systems and ET-based irrigation controllers, retrofits to toilets and plumbing fixtures, implementation of weather-based irrigation controllers, AMI meters, etc. will have permanent effects on water use (reduction) in the future.

Lower per-capita water use is projected for new housing development (relative to existing housing and development) due to new building codes and landscape ordinances. California's newly adopted green building code will have a direct impact on home building and water conservation in the State. The new code aims to cut indoor water consumption by at least 20 percent, primarily through more efficient indoor water fixtures. For a three-bedroom house, the saving is estimated to be about 10,000 gallons of water per year, on average.

The California Green Building program also includes outdoor water conservation by reducing the area devoted to high-irrigation lawns and plants, emphasizing natural drought-tolerant plantings, and installing irrigation controls that respond to local weather conditions. This is consistent with MSWD's 2009 Water Efficient Landscaping Guidelines and the MWELO, which was adopted by the State on July 15, 2015 and was adopted by the City of Desert Hot Springs.

8.10 Plan Adoption, Submittal, and Implementation

This section includes a discussion of MSWD's process for adopting, submitting, and implementing the RUWMP and MSWD's WSCP.

8.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. MSWD issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and MSWD's WSCP. MSWD provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 8-31, and the notification

letters are included in Appendix A of the RUWMP. MSWD provided an additional notice to the cities and counties with the time and date of the public hearing.

Table 8-31. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
Desert Hot Springs	Yes	Yes
Palm Springs	Yes	Yes
County		
Riverside	Yes	Yes

Prior to the public hearing and in accordance with California Government Code §6066, MSWD provided notice to the public through its website and published announcements of the public hearing in the newspaper on two occasions before the hearing. Copies of the proof of publication are included in Appendix A of the RUWMP.

8.10.2 Public Hearing and Adoption

MSWD held a public hearing on June 3, 2026, located at 66575 Second Street, Desert Hot Springs, CA 92240 to hear public comment and consider adopting this RUWMP and MSWD's WSCP. As part of the public hearing, MSWD provided information on MSWD's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and MSWD's WSCP took place before the adoption of the Plans, which allowed the opportunity to modify the RUWMP and MSWD's WSCP in response to public input before adoption. After the hearing, the Plans were adopted as prepared or as modified during the hearing.

The City's adoption resolution for the RUWMP and MSWD's WSCP is included in Appendix F.

8.10.3 Plan Submittal

MSWD will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to the Cities of Desert Hot Springs and Palm Springs and the County of Riverside, which MSWD supplies water to, within 30 days of adoption.

MSWD is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

8.10.4 Public Availability

The RUWMP and MSWD's WSCP will be available on the MSWD website for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at MSWD's office (see address below) during regular business hours.

Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

The final documents will also be posted on the CVRWMG website at https://www.cvrwmg.org/uwmp/.

8.10.5 Amending an Adopted UWMP or WSCP

If MSWD identifies the need to amend the adopted RUWMP or MSWD's WSCP, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended RUWMP.

Chapter 9 Myoma Dunes Mutual Water Company

9.1 Introduction

This chapter describes information specific to Myoma Dunes Mutual Water Company (MDMWC) and its water use efficiency programs. As an urban water supplier, MDMWC is required to prepare a UWMP every five years in response to the requirements of the UWMP Act, CWC Sections 10610 through 10656. This RUWMP serves to meet the UWMP Act requirements for the six participating agencies, and this chapter contains information specific to MDMWC.

Background about the preparation of the RUWMP and the changes in the CWC requirements is presented in Chapter 1 of the RUWMP. The relation of the RUWMP to other planning efforts is described in Chapter 3 of the RUWM.

9.1.1 Chapter Organization

This chapter is organized into the sections recommended by the 2025 UWMP Guidebook prepared by DWR.

- **Section 9.1 - Introduction and Lay Description.** Provides a discussion on the fundamentals of the UWMP and the required Lay Description of the UWMP. Each UWMP must include a Lay Description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding.
- **Section 9.2 - Plan Preparation.** Provides information on MDMWC's process for developing the UWMP, including efforts in coordination and outreach.
- **Section 9.3 - Service Area Description.** Includes maps of the service area, a description of the service area and climate, public water systems, and MDMWC's organizational structure and history.
- **Section 9.4 - Water Use Characterization.** Describes and quantifies the current and projected urban water uses within MDMWC's service area.
- **Section 9.5 – SB7x7 Baselines, 2020 Targets, and 2025 Reporting.** Describes MDMWC's methods for calculating baseline and 2020 target urban water consumption and reporting 2020 target compliance from the 2020 UWMP.
- **Section 9.6 - Water Supply Characterization.** Describes and quantifies current and projected sources of urban water available to MDMWC. Includes discussion of potential recycled water uses and supply availability.
- **Section 9.7 - Water Service Reliability and Drought Risk Assessment.** Describes the reliability of MDMWC's water supply and projects the reliability for at least the next 20 years. Includes an analysis for normal years, single dry years, and a five-consecutive-year drought.
- **Section 9.8 - Water Shortage Contingency Plan.** Refers to the appendix which provides MDMWC's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- **Section 9.9 - Demand Management Measures.** Describes MDMWC's efforts to promote conservation and to reduce demand through demand management measures.
- **Section 9.10 - Plan Adoption, Submittal, and Implementation.** Describes the steps taken by MDMWC to adopt and submit the UWMP and to make it publicly available. Includes a discussion of MDMWC's plan to implement the UWMP.
- **Appendices.** Each Supplier may have information that is best appended to the 2025 UWMP, to support and further clarify information included in the main chapters.

9.1.2 UWMPs in Relation to Other Efforts

The related planning efforts by agencies in the Coachella Valley are described in Chapter 2 of the RUWMP.

9.1.3 UWMPs and Grant or Loan Eligibility

MDMWC has prepared and adopted this 2025 UWMP, including compliance with water conservation requirements, and is therefore eligible for State water grants or loans.

9.1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

The participating agencies' approach to demonstrating reduced reliance on the Delta is described in Chapter 3 of the RUWMP. The analysis of reduced Delta reliance is provided in Appendix B.

9.2 Plan Preparation

This section provides information on MDMWC's process for developing this RUWMP, including efforts in coordination and outreach.

9.2.1 Plan Preparation

In accordance with the CWC, urban water suppliers must develop a UWMP every five years. An "urban water supplier" is a supplier providing water for municipal purposes to more than 3,000 service connections or supplying 3,000 AFY or more. MDMWC supplies 3,444 AFY to 2,616 municipal service connections and, therefore, surpasses both the volumetric delivery and number of connections thresholds and has prepared a 2025 UWMP.

9.2.2 Basis for Preparing a Plan

MDMWC is a retail public water supplier that meets the definition of an urban water supplier with over 2,600 municipal water service connections in 2025. MDMWC maintains three PWSs with information shown in Table 9-1.

Table 9-1. DWR 2-1R Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
3310051	Myoma Dunes Mutual Water Company	2,616	3,939
Total		**2,616**	**3,939**

9.2.3 Regional Planning

The regional planning efforts of water supply agencies in the Coachella Valley are described in Chapters 2 and 3 of the RUWMP.

The UWMP Act allows water agencies to prepare their plans either individually or by participation in an area wide, regional, watershed, or basin-wide urban water management plan. MDMWC is participating in the Coachella Valley RUWMP

9.2.4 Individual or Regional Planning and Compliance

The Water Conservation Act of 2009 allows agencies to report progress toward achieving water conservation targets on an individual or regional basis. The agencies have not created a Regional Alliance for the purposes of measuring and reporting water conservation targets.

9.2.5 Fiscal or Calendar Year and Units of Measure

This UWMP reports water use on a calendar year basis, and all volumes are expressed in units of acre-feet (AF), unless otherwise indicated. MDMWC is a retail agency and does not currently sell wholesale water. Table 9-2 shows MDMWC's supplier identification information used throughout this report.

Table 9-2. DWR 2-3 Supplier Identification

Information	Supplier Identification
Type of Supplier	Supplier is a retail supplier
Fiscal or Calendar Year	UWMP Tables are in calendar years
Unit of measure used in UWMP	AF

9.2.6 Coordination and Outreach

MDMWC does not receive water from a wholesale supplier and meets all its water demands through its own supplies. MDMWC does not currently provide wholesale water to other water agencies.

Outreach and coordination with other local agencies during RUWMP preparation, including notices to the cities and counties within the region, are described in Chapter 1 of the RUWMP.

9.3 Service Area Description

This section includes a description of MDMWC's service area, climate, and population projections.

9.3.1 General Description

MDMWC is a retail urban water supplier that was established in 1953 to provide potable water service to the community of Bermuda Dunes. MDMWC has grown over the years, seeing housing booms in the mid-1980s, late 1990s, and mid-2000s, and it now provides service to approximately 2,450 residents in the Bermuda Dunes area, an unincorporated part of Riverside County, and a portion of La Quinta. MDMWC is a mutual water company that is governed by a four-member Board of Directors.

MDMWC's service area is approximately 2.6 square miles, generally bounded by Interstate 10 to the north, Washington Street to the west, Fred Waring Drive to the south, and Jefferson Street to the east. There is a small area of homes in the center of the MDMWC service area that is served by CVWD.

The service area is predominantly comprised of single-family residential, with outdoor water use being a major component of this demand category. The service area also includes multi- family residential, commercial, and landscape irrigation demands. Currently, the Bermuda Dunes Country Club (BDCC) and Bermuda Dunes Airport irrigation demands are met with their own private wells, not MDMWC potable water. The service area is near build-out, with some small pockets of potential development, more so towards the northern and western edges of the service area.

9.3.1.1 Domestic Water Delivery

MDMWC 's water supply source consists solely of groundwater from the Indio Subbasin. Water is extracted via four active groundwater wells with a total nominal production capacity of 10,300 GPM. Two wells were taken out of service since 2020, but total production capacity has been maintained by increasing pumping rates at the four remaining wells. One of the wells pump directly into two respective one-million-gallon reservoirs, which serve as forebays to the distribution system. A capital improvement project is underway to route a well directly to the reservoirs to replace one that was lost. Two booster stations with nominal capacities totaling 7,500 gallons per minute deliver water from the forebays into the distribution system. Threewells pump directly into the distribution system. Current treatment consists of wellhead chlorine injection. MDMWC serves its customers through a network of pressurized water distribution facilities. The distribution system consists of a single pressure zone that is operated at pressures from approximately 70 to 100 PSI. MDMWC is not interconnected with any other water purveyor and is completely reliant upon its own groundwater well supply and storage.

9.3.2 Service Area Boundary

MDMWC's service area boundary is shown in Figure 9-1.

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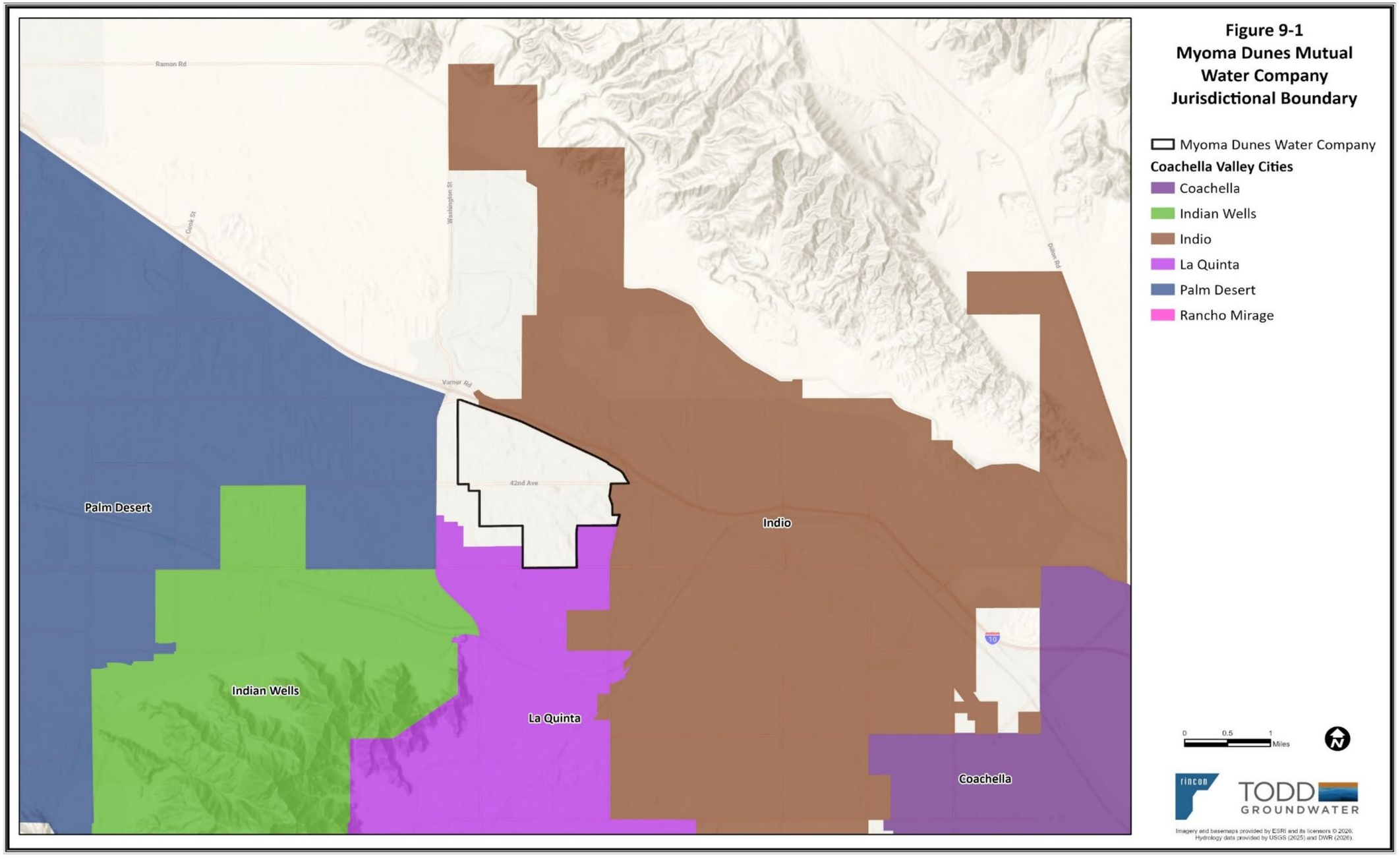


Figure 9-1. MDMWC Service Area Boundary

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9.3.3 Service Area Climate

MDMWC's service area lies within the central Coachella Valley, which experiences an arid climate characterized by low humidity, high summer temperatures, and mild dry winters. The Coachella Valley has a unique climate due to it being situated between two mountain ranges, characterized as arid with year-round warm temperatures and relatively high winds. Precipitation is minimal, typically occurring during the winter months.

Data from climate station in Indio represents climate in the MDMWC service area. Monthly average high temperature reaches 106 degrees and monthly average low temperatures are 39 degrees. Monthly climate data are summarized in Table 9-3 and are shown in Figure 9-2.

Table 9-3. Monthly Average Climate Data (Indio)

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	72	75	82	87	93	103	106	106	101	90	80	65	88
Average Minimum Temperature (F)	42	45	52	58	63	70	76	75	69	59	49	39	58
Average Total Precipitation (in)	0.5	0.6	0.7	0.3	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.7	3.8
Evapotranspiration, ETo (in)	2.7	3.6	6.0	7.7	9.2	9.8	9.7	9.1	7.2	5.2	3.3	2.3	75.7

Notes:
Data from California Irrigation Management Information System (CIMIS) Station 200, Indio 2. Data from May 2006 through December 2020

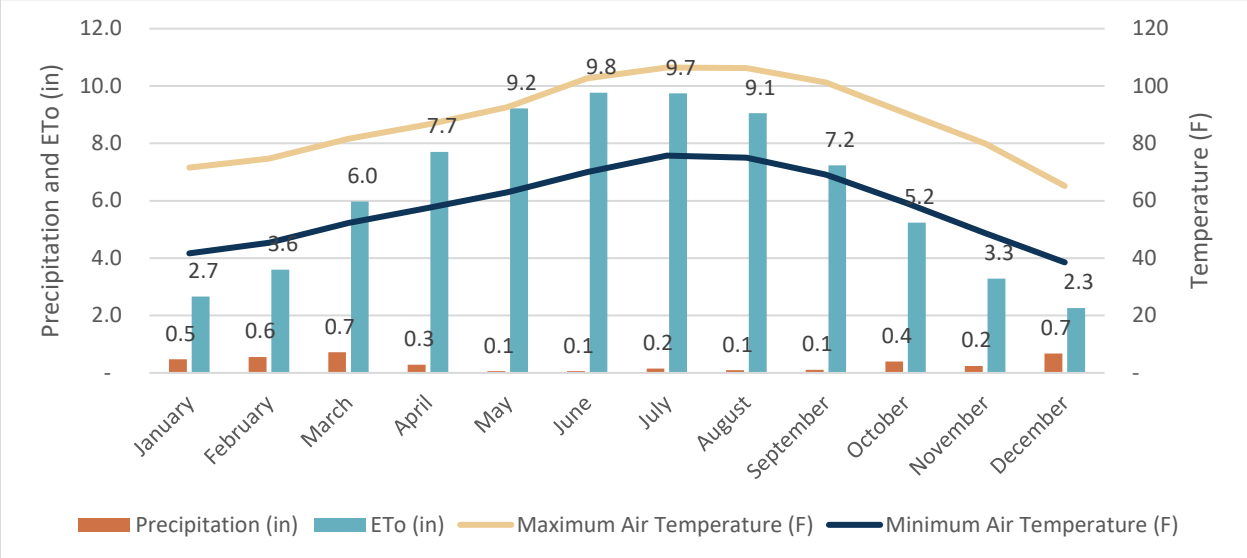


Figure 9-2. Monthly Average Climate Data

A discussion of the potential impacts of climate change on the region is included in Chapter 3 of the RUWMP.

9.3.4 Service Area Population and Demographics

This section describes the population and demographics within MDMWC's service area. MDMWC serves the majority of Bermuda Dunes, which is a Census-Designated Place (CDP) in Riverside County, and a small portion of the City of La Quinta. Current and projected demographics within MDMWC's service area were developed by SCAG as part of the 2024 Regional Transportation Plan referred to as Connect SoCal (SCAG, 2024). As part of that effort, SCAG performed a detailed evaluation of current and projected future demographics throughout southern California, including the study area for the RUWMP. The Connect SoCal analysis included forecasts for employment, population, and households within cities and unincorporated areas. This demographic information was used to prepare projections of future water demands.

The growth forecasts in SCAG's Connect SoCal plan included estimates of population, households, and employment through 2050. The 2024 Connect SoCal update projects that the population of Riverside County will increase by approximately 50 percent through 2050. The 2024 update also notes that the region's population decline between 2019 and 2023 and attributes this decrease to COVID-19 pandemic impacts. Traffic and visitation decline during the pandemic but has recovered to or exceeded pre-pandemic levels in most communities. SCAG notes that the median age is increasing and unpredictable events like the COVID-19 pandemic may cause significant deviations from projected long-term trends.

An important consideration affecting per capita water use in MDMWC is the region's large seasonal population, which is not counted by the federal census or other demographic data. Due to its mild winter climate and recreational opportunities, Coachella Valley is a popular destination for "snowbirds," people whose primary residence is outside Coachella Valley but may live there for three to six months during the winter period. In addition, there are people who maintain second homes in Coachella Valley and use them for shorter periods of time throughout the year to participate in various sports, entertainment, and recreational activities. The visitor population also makes use of Coachella Valley's hotel/motel/time-share resorts as well as mobile home parks. These properties use water year-round for irrigation even when not occupied during the summer months. Per capita water use calculations only consider the permanent population but include all water uses (permanent and seasonal) which leads to higher GPCD estimates.

To estimate service area population both permanent residents and seasonal residents were estimated. Estimates of the permanent population were made using SCAG housing estimates, housing density, and water meter connections. The water service area shown in Figure 9-1 was intersected with 2019 housing totals from SCAG's Connect SoCal 2024 growth projection (SCAG, 2024). 2025 household totals were estimated by multiplying the 2019 totals by the growth in residential meter connections from 2019 to 2025. The permanent population was then estimated by multiplying the 2025 household totals by the number of persons per household for each jurisdiction within MDMWC's service area using census data. The seasonal population was then estimated by dividing the permanent population totals by the occupancy rate from the Census for each jurisdiction to determine the number of housing units in MDMWC's service area, and multiplying the total number of housing units by the difference between the average vacancy rate for California and the vacancy rate of each jurisdiction in MDMWC's service area. This resulting number was used for the seasonal population estimate. Current and projected populations within MDMWC's service area are presented in Table 9-4.

Table 9-4. DWR 3-1R Current and Projected Population

Population Served	2025	2030	2035	2040	2045	2050
Permanent	8,118	9,828	11,538	11,553	11,567	11,582
Seasonal	1,536	1,818	2,100	2,075	2,050	2,026
Total	9,655	11,646	13,638	13,628	13,618	13,608

A summary of the demographics of the Bermuda Dunes CDP is presented in Table 9-5. Note that these values are not directly representative of MDMWC's as its water service boundary does not directly coincide with the CDP.

Table 9-5. Bermuda Dunes CDP Demographic Data

Age Distribution		Race/Ethnicity Distribution		Income and Household Size		Household Income Distribution	
Age	**Percent**	**Race/Ethnicity**	**Percent**	**Parameter**	**Amount**	**Income**	**Percent**
19 years and under	25.2%	White	58.5%	Median household income	$59,860	$24,999 and under	18.0%
20-34 years	18.0%	Black	1.8%	Average household income	$77,829	$25,000-$49,999	23.2%
35-54 years	25.8%	Native American	0.0%	Per capita income	$33,786	$50,000-$74,999	16.7%
55-64 years	12.6%	Asian/Pacific Islander	3.5%	Percent of Population Below Poverty Level	12.4%	$75,000-$99,999	15.9%
Over 65 years	18.6%	Hispanic	33.8%	Average Household Size	2.38	$100,000-$149,999	13.2%
		Other	2.5%			$150,000 and above	13.1%

Notes:
Totals may not equal 100% due to rounding errors.
Reference: American Community Survey 2014-2019 (United States Census Bureau, 2021)

9.3.5 Land Uses within Service Area

Existing land uses within the MDMWC water service area are a mixture of residential, commercial, and open space. Land use jurisdictions with MDMWC's service area include the City of La Quinta and Riverside County. During its preparation of regional growth projections, SCAG gathered input and coordinated outreach with both jurisdictions. MDMWC has coordinated with these agencies to align its growth projections with local plans.

To support the demand forecast in this RUWMP, MDMWC reached out to each of the cities within the region to request information on additional known development plans or approvals that may not have been included in the 2024 Connect SoCal effort. This information has been incorporated into the RUWMP demand forecast.

9.4 Water Use Characterization

This section describes current and projected urban water system demands within the MDMWC service area. To provide an adequate long-range view of future water needs, this report uses a 25-year planning period from 2025 to 2050. This RUWMP will serve as a source document for future water supply assessments and written supply verifications until the next 5-year UWMP update.

Although the MDMWC service area is substantially built out, there are still many complex factors that impact water use projections such as weather, demand restrictions, housing trends, and landscaping conversions.

9.4.1 Non-Potable Versus Potable Water Use

MDMWC currently serves only potable water to its customers, supplied from the Indio Subbasin. The Indio Subbasin is regionally managed by the six participating agencies in this RUWMP.

9.4.2 Water Use by Sector

Water use for the past five calendar years has been categorized by sector in accordance with the sectors accepted by the Water Use Efficiency (WUE) data online submittal tool. MDMWC's metering categories generally coincide with the WUE sectors. MDMWC only supplies drinking water from groundwater wells for retail consumption. MDMWC does not supply raw water or recycled water. The water use sectors in the MDMWC service area are summarized in Table 9-6.

Table 9-6. Water Use Sectors

Sector	Description
Single-Family Residential	A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling.
Multi-Family Residential	Multiple dwelling units contained within one building or several buildings in a single complex.
Commercial	A water user that provides or distributes a product or service.
Landscape	Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.
Other	Other metered water use that is not assigned to a specific billing category, such as metered construction use, etc.
Losses	Non-revenue water is considered the difference between production and measured consumption. Non-revenue water includes distribution system losses as well as authorized non-billed water uses, such as firefighting and flushing.

MDMWC does not sell water to any other agencies or districts and there are no plans to wholesale municipal water in the future. MDMWC does not use its potable water supply for any purpose other than domestic water.

9.4.2.1 Distribution System Losses

Distribution system water losses include real and apparent losses. Real losses are the physical water losses from the water distribution system as well as storage facilities, up to the point of customer consumption. Apparent losses (also known as “paper losses”) include losses due to water theft, metering inaccuracies, or data errors. Combined, these two components make up total water losses.

MDMWC water losses for the past five years been estimated using the AWWA Method, covered in AWWA M36 – Water Audits and Loss Control Programs, utilizing the AWWA Water Audit Software (WAS). The results are summarized in Table 9-7, and the completed audits are included in Appendix E of the RUWMP.

Table 9-7. DWR 4-4R 12 Month Water Loss Audit Reporting

Report Period Start Date		Volume of Water Loss (AFY)
MM	YYYY	
01	2020	415
01	2021	301
01	2022	72
01	2023	27
01	2024	134

CWC Section 10608.34 requires water suppliers to provide data to determine whether the supplier will meet its State Water Board water loss performance standard. MDMWC reports water loss for its distribution system. The real water loss performance standard for MDMWC’s distribution system is 20.5 gallons per connection per day, a 71percent reduction from the state estimated baseline of 70.2 gallons per connection per day. Suppliers will be required to submit a registry of breaks, repairs, and estimates of water loss every three years, beginning in 2029 for the 2025 through 2027 period. Water losses for the supplied data period will be assessed compared to the performance standard. MDMWC’s total water loss currently averages about 45.8 gallons per connection per day, with the most recent reporting year averaging 39.9 gallons of real water loss per connection per day. Table 9-7 shows the City’s progress towards the 2028 Water Loss Standard.

Table 9-8 DWR Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard

		Real Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
Public Water System ID #	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop Down List	Number of Units	Volume of Total Real Loss	Real Water Loss Per Unit per Day
CA3310051	Yes	20.5	Gallons per Connection per Day (GPCD)	2,605	117	39.9
		Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		
Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss	Apparent Water Loss Per Unit per Day
CA3310051	Yes	42.2	Gallons per Connection per Day (GPCD)	2,605	17.1	5.9

9.4.2.2 Summary of Current Uses

Water use for the past five years is shown in Table 9-8.

Table 9-9. Actual Demands for Water (AFY)

Use Type	Level of Treatment When Delivered	2020	2021	2022	2023	2024	2025
Single Family	Potable	2,474	2,553	2,381	2,284	2,378	2,396
Multi-Family	Potable	317	631	591	549	551	598
Commercial	Potable	374	89	94	208	233	468
Landscape	Potable	274	261	230	211	250	229
Other	Potable	132	123	99	56	85	58
Losses	Potable	415	301	72	27	134	190
Total Potable		**3,987**	**3,958**	**3,466**	**3,335**	**3,631**	**3,939**
Total		**3,987**	**3,958**	**3,466**	**3,335**	**3,631**	**3,939**

9.4.3 Demand Forecast

Local agencies are currently participating in the update of the Indio Subbasin Alternate Plan being prepared to meet requirements of SGMA. The participating agencies coordinated efforts with demand projections being prepared for the Indio Subbasin Alternative Plan and the Mission Creek Subbasin Alternative Plan. The demand projection approach included the following steps:

1. The projections were based on SCAG's regional growth forecast prepared as part of their Regional Transportation Plan, Connect SoCal 2024. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. The SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area (SCAG 2024).
2. Additional analysis of vacancy rates was performed to estimated baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time uses.
3. Baseline and projected estimates of employment were used to drive future growth in CII demands
4. Five years of customer billing data (2020 to 2024) were used to develop unit demand factors specific to MDMWC. These factors have units of gallons per housing unit for residential and landscape uses and gallons per employee for CII uses.
5. Water losses were estimated using water loss audits from the last five years (2020 to 2024).
6. Demands were adjusted for the following types of conservation savings:
    - Indoor passive conservation savings from the natural replacement of indoor devices and plumbing fixture
    - Outdoor water use reduction at new developments from the implementation of The County of Riverside's Landscape Ordinance
    - Outdoor conservation savings from the implementation of the 2015 Model Water Efficiency Landscape Ordinance (MWELO) for future developments.
    - Outdoor conservation savings from turf replacement due to local rebate programs
    - Outdoor conservation savings from the implementation of the State of California's non-functional turf ban

Projected municipal demands for MDMWC's service are shown in Table 9-10.

Table 9-10. DWR 4-2R Projected Demands for Water (AFY)

Use Type	Additional Description	Projected Water Use				
		2030	2035	2040	2045	2050
Single Family	Potable	2,507	2,617	2,598	2,587	2,575
Multi-Family	Potable	736	949	946	946	945
Commercial/Industrial/Institutional	Potable	204	208	221	235	248
Landscape	Potable	191	149	144	139	135
Other	Potable	99	99	99	99	99
Losses	Potable	202	219	220	221	222
Subtotal Potable		**3,883**	**4,165**	**4,152**	**4,148**	**4,144**
Total		**3,883**	**4,165**	**4,152**	**4,148**	**4,144**

9.4.3.1 Conservation Savings

Demand projections prepared for this RUWMP considered anticipated future water savings (summarized in Step 6 above). The analysis included indoor savings related to toilets, showerheads, dishwashers, clothes washers, faucets, and urinals (categorized as indoor water use) as well as outdoor water use. Indoor conservation is mainly a result of government mandated water efficiency requirements for fixtures, defined as "passive savings". The model considers these mandates and the average useful life and replacement rates for each type of fixture based on standard industry estimates and plumbing fixture saturation studies. It assumes that all new construction complies with the plumbing codes in effect at that time and that when a device is replaced, the new device is also in compliance with the current plumbing codes. Estimated frequency of use for each type of fixture was based on a Conservation and Efficiency Potential study by the Pacific Institute were multiplied by the number of housing units to produce the total indoor passive conservation savings (Pacific Institute, 2014).Anticipated outdoor water use savings were based on the implementation of the California MWELO which is the standard for outdoor water conservation for the state and the basis for the County of Riverside's Ordinance Number 859, Water Efficient Landscape Requirements. The resulting water savings from the MWELO are estimated using an ETAF which adjusts the reference ET for plant requirements and irrigation efficiency. Additional outdoor water use savings are anticipated due to the non-functional turf ban, smart irrigation controllers, and turf replacement. Assembly Bill (AB) 1572, passed in 2023, banned the use of potable water to irrigate non-functional turf (i.e. ornamental grass not used for recreation). The ban will go into effect in phases beginning in 2027 and will affect commercial, institutional, and homeowner association owned properties. MDWMC has rebates in place to encourage water conservation through turf replacement. These savings are not considered passive are they are implemented through incentives under conservation programs.

The anticipated passive savings due to these measures are summarized in Table 9-11. These savings have been incorporated into the demand projections presented in Table 9-10.

Table 9-11. DWR 4-4R Passive Water Savings Projections (AFY)

	Projected Water Savings (AFY)				
Passive Savings	**2030**	**2035**	**2040**	**2045**	**2050**
Device Replacement	88	158	180	193	206
MWELO	83	154	159	164	169
Non-Functional Turf Ban	55	74	74	74	74
Total Passive Savings	**226**	**385**	**413**	**431**	**449**

9.4.3.2 Total Gross Water Use

Total projected gross water use, including both potable and recycled use, is shown in Table 9-12.

Table 9-12. DWR 4-3R Total Gross Water Use (AFY)

	2025	**2030**	**2035**	**2040**	**2045**	**2050**
Potable and Raw Water (AFY) From DWR Table 4-1R and 4-2R	3,883	4,165	4,152	4,148	4,144	3,883
Recycled Water Demand (AFY) From DWR Table 6-4R	0	0	0	0	0	0
Total Water Use	**3,883**	**4,165**	**4,152**	**4,148**	**4,144**	**3,883**
Note: Recycled water demands are discussed in Section 8.6.						

9.4.4 Water Use for Lower Income Households

The SCAG RHNA Housing Need by Income Category is used to develop projections of lower income housing units in future years. Lower income households are those with less than 80 percent of the area's median household income, adjusted for family size. The City will strive to meet their new construction goals of the RHNA. The demand for lower income households is included in the water use projections in Table 9-9. The connections for lower income households were estimated to be approximately 40 percent of the total residential connections in the service area. MDMWC estimates that approximately 40 percent of its demand is delivered to lower income households. This percentage is expected to remain approximately constant for future years.

9.4.5 Climate Change Considerations

The agencies participating in the Regional UWMP have prepared an assessment of potential climate change impacts on demand. This information is presented in Chapter 3 of the RUWMP.

9.5 SB7x7 Baselines, 2020 Targets, and 2025 Reporting

With the adoption of the Water Conservation Act of 2009 (SB X7-7), the State set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier was required to determine its water use during a baseline period and establish water use targets for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

In the 2025 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2020. The SBx7-7 Verification Forms were presented in the 2020 UWMP, Appendix E. This section also demonstrates that MDMWC achieved its 2020 water use target in 2020.

9.5.1 SB7x7 Baselines and 2020 Targets

SBx7-7 required urban water suppliers to establish a per capita water use target for 2020 to be calculated by using one of four methods. MDMWC selected to use Method 1, which was calculated based on the selected 10-year baseline of 859 GPCD. Using that criteria, MDMWC's selected 2020 target was 685 GPCD.

9.5.2 Calculating Population and Gross Water Use

To assess compliance with the 2020 water use target in GPCD, MDMWC's service area population and gross water use were compared to the SBx7-7 target.

The gross water used was determined from production records. One hundred percent of MDMWC's supply entering the distribution system is provided by groundwater wells owned and operated by MDMWC. All groundwater wells pump from the Indio Subbasin. As MDMWC does not utilize recycled water, does not place water into long term storage, does not convey water to another urban supplier, does not deliver water for agricultural uses, and does not deliver water to industrial users, no deductions to gross water use were made for these sources. MDMWC's water use was calculated as 497 GPCD for year 2020.

9.5.3 Supplier Met 2020 Target in 2020

MDMWC met their 2020 target as reflected in Table 9-13 below, which includes their 2020 target and 2020 Actual GPCD. MDMWC was not a part of a merger or consolidation and was not a part of an SBx7-7 Regional Alliance target.

Table 9-13 SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	685	497	Yes

9.6 Water Supply Characterization

This section describes and quantifies the sources of water available to MDMWC.

9.6.1 Water Supply Analysis Overview

Within the MDMWC service area, the only direct water source employed for potable urban water use is local groundwater from MDMWC wells. This groundwater is pumped from the Indio Subbasin of the Coachella Valley Groundwater Basin, which is continuously replenished by DWA and CVWD with imported water. The Indio Subbasin serves as an expansive conjunctive use resource that can ensure a sufficient and sustainable water supply to serve existing uses and projected growth during normal, single-dry and multiple-dry years over an extended planning horizon.

9.6.2 Supply Characterization

This discussion includes the types of water supply considered by DWR. As shown in Table 9-14, MDMWC serves 100 percent of customer demands with groundwater.

Table 9-14. Urban Water Supply 2020-2024 (AFY)

Water Supply	Additional Description	2020	2021	2022	2023	2024
Groundwater	Indio Subbasin	3,987	3,958	3,466	3,335	3,631
Total		**3,987**	**3,958**	**3,466**	**3,335**	**3,631**

9.6.2.1 Purchased or Imported Water

MDMWC does not independently purchase, exchange, or import water from any source outside of Coachella Valley. As described in Chapter 3 of the RUWMP, imported water is used on a regional basis for groundwater replenishment.

9.6.2.2 Groundwater

Groundwater is the sole source of supply for MDMWC. MDMWC supplies are primarily from the eastern end of the Indio Subbasin, which is a common groundwater source shared by CVWD, CWA, DWA, Indio, MDMWC, and numerous private groundwater producers. Because the Indio Subbasin is a non-adjudicated basin, MDMWC operates under overlying groundwater rights and pumps supplies from the aquifer as needed to meet demands within its service area. More information about the Indio Subbasin is presented in Chapter 3 of the RUWMP.

MDMWC's historical groundwater pumping is summarized in Table 9-15.

Table 9-15. DWR 6-1R Groundwater Volume Pumped (AFY)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Indio Subbasin	3,958	3,466	3,335	3,631	3,939
Total		**3,958**	**3,466**	**3,335**	**3,631**	**3,939**

Groundwater Quality

MDMWC's water quality meets MCLs for monitored primary, secondary, or microbial contaminants. All water provided by MDMWC meets all U.S. EPA and SWRCB guidelines (MDMWC 2025a).

In October 2024, the SWRCB approved the country's first drinking water standard for hexavalent chromium (chromium-6) at 10 µg/L. In November 2025, MDMWC distributed a notice notifying customers of a chromium-6 sample above California's new drinking water standard. While water systems of MDMWC's size are not considered in violation of the MCL until after October 1, 2027, the District is working closely with the SWRCB to address the exceedance. MDMWC has completed a chromium-6 Compliance Plan,

conducted a water system evaluation, performed treatment and pilot testing, and are preparing engineering design and permitting for treatment improvements (MDMWC 2025b).

9.6.2.3 Surface Water

MDMWC does not use, or plan to use, self-supplied surface water as part of its water supply.

9.6.2.4 Stormwater

MDMWC does not currently use stormwater as a water supply. Stormwater in the Coachella Valley typically percolates into the groundwater basin or is conveyed to the CVSC; however, there is some stormwater catchment at the Whitewater River GRF and other smaller recharge basins. Due to the extremely limited amount of rainfall and runoff in the region, stormwater is not currently regarded as a high priority potential water source.

9.6.2.5 Wastewater and Recycled Water

MDMWC does not own or operate any recycled water infrastructure and does not produce, treat, or distribute recycled water. The District's services are limited to potable water supply.

Although wastewater collection and treatment services are not directly provided by MDMWC, these services do exist in the MDMWC service area as provided by CVWD. Approximately one-third of MDMWC customers receive wastewater collection service from CVWD. The remaining properties rely on individual septic systems.

Wastewater collected by CVWD within the MDMWC service area is conveyed to CVWD's WRP-7, located in north Indio, approximately three miles north of MDMWC's boundary. WRP-7 provides secondary treatment and produces recycled water that is used within CVWD's recycled water system. However, MDMWC does not receive or distribute recycled water from this facility, and wastewater flows originating within MDMWC's service area are not separately metered prior to treatment; therefore, flow volumes are estimated.

MDMWC does not provide wastewater collection or wastewater treatment services, does not operate any wastewater treatment plants, and does not have plans at this time to develop recycled water infrastructure. Irrigation demands within the service area, including the Bermuda Dunes Country Club and Bermuda Dunes Airport, are currently met through private groundwater wells and/or other non-recycled water supplies. There are no current plans to convert these uses to recycled water service.

Wastewater collection within the MDMWC service area is summarized in Table 9-16.

Table 9-16. DWR 6-2R Wastewater Collected within Service Area in 2025

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated**	**Wastewater Volume Collected from UWMP Service Area in 2025 (AFY)**	**Name of Wastewater Agency Receiving Collected Wastewater**	**Wastewater Treatment Plant Name**	**Wastewater Treatment Plant Located within UWMP Area**	**WWTP Operation Contracted to a Third Party**
CVWD	Estimated	591	CVWD	WRP-7	No	No
Total		**591**				
Note: For MDMWC customers on CVWD sewer, "Volume of Wastewater Collected from UWMP Service Area" was estimated assuming 24 percent of metered water consumption becomes wastewater using an average of expected ranges of indoor versus outdoor use for the Bermuda Dunes area.						

9.6.2.6 Desalinated Water Opportunities

Developing new desalinated water sources for MDMWC is currently impractical for several reasons including the lack of a saline water source; the distance, costs, and lack of infrastructure for desalinated ocean water; and brine management issues.

9.6.2.7 Water Exchanges and Transfers

MDMWC does not currently participate in direct water exchanges or transfers. Exchanges involving SWP supplies and Colorado River water for groundwater basin replenishment are managed regionally by CVWD and DWA.

While MDMWC does not have any existing emergency interties in operation, MDMWC is currently developing an interconnection with Indio to enhance system reliability and emergency supply capability. As of late 2025, the intertie project has been completed through design and is out to bid for construction. Upon completion, the intertie will provide operational flexibility and emergency supply redundancy between the two agencies.

Opportunities may also exist for future interconnections with CVWD based on the proximity of existing distribution infrastructure; however, no additional intertie projects are currently planned.

9.6.2.8 Future Water Projects

MDMWC's service area is substantially built out, and recent demand reductions due to drought conditions and demand hardening have further stabilized water use. Accordingly, MDMWC does not have plans for new or substantial water supply projects within the urban water management planning horizon beyond routine capital improvement projects for system maintenance and reliability.

9.6.2.9 Summary of Existing and Planned Sources of Water

MDMWC's existing water supply volumes are presented in Table 9-17. These figures are based on MDMWC production records for 2020. One hundred percent of the supply was from the Indio Subbasin.

Planned water supply volumes are presented in Table 9-18. As the Indio Subbasin is anticipated to be reasonably reliable for the urban water management planning horizon, the projected water supply is assumed to be equivalent to the projected water demand.

Table 9-17. DWR 6-8R Actual Water Supplies

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume (AFY)	Water Quality
Groundwater	Indio Subbasin	3,444	Potable
Total		**3,444**	

Table 9-18. DWR 6-9 R Projected Water Supplies (AFY)

Water Supply	Additional Detail on Water Supply	2030	2035	2040	2045	2050
Groundwater	Indio Subbasin	3,883	4,165	4,152	4,148	4,144
Total		**3,883**	**4,165**	**4,152**	**4,148**	**4,144**

9.6.2.10 Special Conditions

Although groundwater is a relatively resilient water supply with respect to climate change, potential effects of a hotter and drier climate could increase water demand within the Coachella Valley. A discussion of potential climate change impacts on MDMWC's supplies is provided in Chapter 3 of the RUWMP.

9.6.3 Energy Use

MDMWC has compiled data to document the energy used for water management operations. MDMWC used the Total Utility Approach to estimate the energy intensity of its water management operations. The data are summarized in Table 9-19.

Table 9-19. DWR O-1B Energy Intensity Reporting

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	1/1/2025	Urban Water Supplier Operational Control		
End Date	12/30/25			
Is upstream embedded in the values reported?	No	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	AF	**Total Utility**	**Hydropower**	**Net Utility**
Volume of Water Entering Process (volume unit)		3,444	0	3,444
Energy Consumed (kWh)		2,472,200	0	2,472,200
Energy Intensity (kWh/volume)		717.8	0.0	717.8
Quantity of Self-Generated Renewable Energy				
0	kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Combination of Estimates and Metered Data				
Data Quality Narrative				
Energy use data was obtained from electricity consumption records maintained by the agency.				
Narrative				
The agency uses energy for groundwater production from wells, pumping at booster stations from lower pressure zones to higher pressure zones, and treatment processes.				

9.7 Water Service Reliability and Drought Risk Assessment

The UWMP Act requires urban water suppliers to assess water supply reliability that compares total projected water use with the expected water supply over the next 20-25 years in five-year increments, including a single dry year and multiple dry years. This section presents the reliability assessment for MDMWC's service area.

9.7.1 Reliability Overview

Coachella Valley water suppliers are achieving success in sustainable groundwater management and as stewards of local water resources. The regional groundwater supply has historically been able to meet demands during both normal and dry periods. Though increased environmental regulations, competition for water supplies, and recurrent drought conditions have reduced the reliability of imported water, groundwater replenishment has reversed past overdraft conditions.

The "normal year" represents the average water supply conditions and availability to MDMWC. This RUWMP uses the long-term average supply metrics to represent normal year conditions.

The "single dry year" represents the lowest water supply available to MDMWC. Though MDMWC's groundwater in storage is not constrained in dry years, this RUWMP uses 2021 for the single dry year due to its combination of low precipitation and peak demand. MDMWC's water use data from the last 20 years was evaluated to understand demand response among its customer base. For MDMWC, the single dry year demand represents 114 percent of normal conditions.

The "multiple dry years" represents the lowest average water supply available to MDMWC for a consecutive multi-year period (five years or more). This is generally considered to be the lowest average surface runoff

for a consecutive multiple year period for a watershed since 1903. This RUWMP uses 2020 through 2024 as the multiple dry year period. Although this period is not the driest consecutive five-year period on record, it represents a more accurate demand response to drought conditions due to conservation programs implemented in recent years by MDMWC. For MDMWC, the multiple dry year demand increases by three percent year-over-year to 115 percent of normal conditions.

The available water supplies and demands for MDMWC's service area were analyzed to understand the region's ability to satisfy demands during three scenarios: an average water year, single-dry year, and multiple-dry years. The years and availability are summarized in Table 9-20.

Table 9-20. DWR 7-1R Basis of Water Year Data

Year Type	Base Year	Available Supply if Year Type Repeats
		Percent of Average Supply
Average Year	2015-2024	100%
Single-Dry Year	2021	114%
Consecutive Dry Years 1st Year	2020	103%
Consecutive Dry Years 2nd Year	2021	106%
Consecutive Dry Years 3rd Year	2022	109%
Consecutive Dry Years 4th Year	2023	112%
Consecutive Dry Years 5th Year	2024	115%

MDMWC's groundwater supply has historically been able to meet demands during dry periods.

9.7.2 Water Service Reliability Assessment

The reliability of the groundwater supply is dependent on reliable sources to replenish water extracted from the groundwater basin. To ensure a safe and reliable supply, regional water suppliers collaborate to manage groundwater via the Indio Subbasin Alternative Plan and Mission Creek Subbasin Alternative Plan.

The Coachella Valley Groundwater Basin is un-adjudicated and has sufficient storage to meet the projected pumping conditions on the basin for the next 25 years, and beyond. Thus, issues related to reliability of supply and vulnerability to seasonal and climatic changes do not significantly affect the reliability of the basin. All of the water currently and historically consumed by MDMWC comes from the basin.

Because groundwater supplies have not been vulnerable to seasonal or climatic conditions, the supplies are limited only by available MDMWC pumping capacity. The water quality of MDMWC water supply, consisting entirely of pumped groundwater, meets applicable regulatory criteria.

The Indio Subbasin groundwater in storage will be used in dry years to support potential differences between demands and supply. The groundwater basin has a capacity of approximately 29.8 MAF. It is capable of meeting the water demands of regional agencies for extended periods during normal, single-dry and multiple-dry year conditions.

9.7.2.1 Normal Year

The expected water supply availability for an average (normal) year is provided in Table 9-21. This analysis does not include WSCP use reduction in a normal year. The available supply is assumed equivalent to the projected demands since the basin is non-adjudicated and based on the expected reliability of the groundwater basin. The supply and demand comparison for the normal year results in no shortages.

Table 9-21. DWR 7-2R Normal Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY) From DWR Table 6-9R	3,883	4,165	4,152	4,148	4,144
Demand Totals (AFY) From DWR Table 4-3R	3,883	4,165	4,152	4,148	4,144
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

9.7.2.1 Single Dry Year

The single dry year represents a "worst-case" scenario for demand response, jumping to 114 percent of normal conditions in a single year. Due to the reliability of the region's groundwater basin, water supply availability during a single-dry year scenario was assumed to be similar to the average year scenario. Supply will consist of pumped groundwater. Reliability during a single dry year is shown in Table 9-22. Demand is assumed to increase during a single-dry year due to increased irrigation needs. This analysis does not include WSCP use reduction in a single dry year. Urban water supplies during the single dry year are fully reliable as groundwater in storage in the Indio Subbasin is available to serve increased demand. Thus, the supply and demand comparison for the single dry year results in no shortages.

Table 9-22. DWR 7-3R Single Dry Year Supply and Demand Comparison

	2030	2035	2040	2045	2050
Supply Totals (AFY)	4,436	4,758	4,743	4,739	4,735
Demand Totals (AFY)	4,436	4,758	4,743	4,739	4,735
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Note: 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.					

9.7.2.2 Multiple Dry Years

Reliability during a multiple-dry year scenario was assumed to be similar to the average year scenario for reasons discussed previously. Demand is expected to increase during multiple dry year periods due to increased irrigation needs. It is assumed that MDMWC's WSCP would be implemented in the second year of a multiple-dry-year period, reducing some of the increased demand. This reliability forecast conservatively assumes that the WSCP will reduce water use by seven percent in the second through fifth years of a multiple year drought. Table 9-23 summarizes the multiple-dry year supply and demand scenario. The multiple dry year urban water supply reliability is 100 percent, as groundwater in storage in Indio Basin will be used to supplement increased demand. In five consecutive dry year conditions, there are no shortages.

Table 9-23. DWR 7-4R Multiple Dry Years Supply and Demand Comparison

	2025	2030	2035	2040	2045
First Year					
Supply Totals (AFY)	3,999	4,290	4,276	4,273	4,269
Demand Totals (AFY)	3,999	4,290	4,276	4,273	4,269
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	0	0	0	0	0
Revised Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply Totals (AFY)	4,116	4,415	4,401	4,397	4,393
Demand Totals (AFY)	4,116	4,415	4,401	4,397	4,393
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	288	308	307	307	307
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply Totals (AFY)	4,232	4,540	4,525	4,521	4,517
Demand Totals (AFY)	4,232	4,540	4,525	4,521	4,517
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	296	317	316	316	316
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fourth Year					
Supply Totals (AFY)	4,349	4,665	4,650	4,646	4,642
Demand Totals (AFY)	4,349	4,665	4,650	4,646	4,642
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	304	326	325	325	324
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**
Fifth Year					
Supply Totals (AFY)	4,465	4,790	4,775	4,770	4,766
Demand Totals (AFY)	4,465	4,790	4,775	4,770	4,766
Surplus/(Shortfall)	**0**	**0**	**0**	**0**	**0**
WSCP Use Reduction	312	335	334	333	333
Revised Surplus/(Shortfall)[1]	**0**	**0**	**0**	**0**	**0**

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

Historically, the groundwater basin has shown signs of overdraft, which could impact reliability in the long term. The implementation of ongoing groundwater management efforts (see Chapter 3 of the RUWMP) seeks to ensure groundwater levels are maintained to mitigate potential overdraft conditions of the basin. MDMWC also continues to implement DMMs and other conservation programs to decrease the annual volume of water consumed.

9.7.3 Drought Risk Assessment

The five-year Drought Risk Assessment (DRA) is intended to evaluate current water supply availability by simulating demand and supply for the next five years under multiple dry year conditions

Demands are expected to increase from current 2025 demands based on the assumptions of demand increase during multi-dry year periods. For MDMWC, the multiple dry year demand increases by three percent year-over-year to 115 percent of normal conditions. It is expected that conservation messaging and programs will prevent any significant increase in demands by existing customers due to dry conditions. The groundwater supply is reliable for a five-year dry period as the volume in storage can be drawn down during a dry period.

The data and methodologies used to identify a potential shortage are described in the WSCP. Based on the reliability analysis in Section 9.7, the supply of groundwater is fully reliable under a five-year drought, including consideration of historic droughts in the Coachella Valley and potential impacts of climate change.

The results of the DRA, including estimated savings from the implementation of the WSCP, are summarized in Table 9-24. Any water shortage can be mitigated through use of groundwater in storage and demand reduction via WSCP implementation.

Table 9-24. DWR 7-5 Five-Year Drought Risk Assessment

2026	Gross Water Use (AFY)	4,058
	Total Supplies (AFY)	4,058
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/(Shortfall)	0
	Resulting Percent Use Reduction from WSCP Action	0%
2027	Gross Water Use (AFY)	4,176
	Total Supplies (AFY)	4,176
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	273
	Revised (Surplus/Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	7%
2028	Gross Water Use (AFY)	4,294
	Total Supplies (AFY)	4,294
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	280
	Revised (Surplus/Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	7%

2029	Gross Water Use (AFY)	4,412
	Total Supplies (AFY)	4,412
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	288
	Revised (Surplus/Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	7%
2030	Gross Water Use (AFY)	4,530
	Total Supplies (AFY)	4,530
	Surplus/(Shortfall) without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	296
	Revised (Surplus/Shortfall)[1]	0
	Resulting Percent Use Reduction from WSCP Action	7%

[1]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. Conversely, any water use reduction as a result of WSCP implementation will result in reduced groundwater production and groundwater will remain in storage for future use.

9.8 Water Shortage Contingency Plan

Water shortage contingency planning is a program that is developed in the form of a Water Shortage Contingency Plan (WSCP) that is used to help manage droughts and other short-term water shortages or supply interruptions by temporarily reducing demand and finding alternate water sources to temporarily increase supply utilizing methods that are within the authority of the water agency. As droughts are part of the normal water cycle in California, this type of planning is a necessity.

MDMWC has developed a WSCP to help manage potential future water shortages. The WSCP is being adopted separately from the RUWMP and may be modified as needed based on changing conditions. The WSCP is included in Appendix C of this RUWMP.

9.9 Demand Management Measures

This section describes MDMWC's water conservation goals, existing and proposed conservation programs, and efforts to promote conservation and reduce demand in order to meet its urban water use reduction targets. Setting goals and selecting appropriate water conservation measures is a continuous process that evolves based upon legislation, technologies, and past measure effectiveness.

9.9.1 Existing Demand Management Measures for Retail

MDMWC aims to reduce unnecessary water usage and eliminate wasteful practices. MDMWC plans to achieve these goals through a combination of promotion, public outreach, voluntary, and mandatory measures. DMMs refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a reliable reduction in water demand. MDMWC also employs a water conservation staff for support.

9.9.1.1 Water Waste Prevention Ordinances

There are a series of SWRCB ordinances regarding the waste of water that remain in effect at all times. Depending on State mandates for water use reduction and depending on the stage of the WSCP, additional water waste prevention ordinances may be enacted.

9.9.1.2 Metering

Except for fire protection services, all customer service connections are fully metered. Most multi-family units are served by one meter. A few multi-family units are metered separately at the owner's request. MDMWC is also in the process of implementing a meter replacement program and converting to AMI. This AMI conversion will provide more accurate meter data and faster detection of leaks, resulting in reduced water losses.

9.9.1.3 Conservation Pricing

MDMWC has adopted a four-tier budget-based rate structure, which is a conservation rate structure that remains active at all times. Tiers are based upon customer water budgets. There is a fixed meter charge dependent on meter size. As the customer uses water in excess of their budget, the tier increases with a progressively increasing unit water cost.

9.9.1.4 Public Education and Outreach

MDMWC is a partner and contributing member of CV Water Counts (http://cvwatercounts.com), a local program consisting of the six water agencies in the Coachella Valley (see description below). MDMWC provides links on its website (http://www.myomawater.com/) to CV Water Counts as well as Save Our Water (http://saveourwater.com), a statewide conservation program that aims to make water conservation a daily habit through partnering with local water agencies, social marketing, and event sponsorships.

MDMWC also reaches its customers by providing water conservation pamphlets at the MDMWC office, as well as by periodically distributing water conservation related materials through customer water bills.

In addition, MDMWC provides a rebate incentive of $3 per square foot for residential projects and $2 per square foot for HOA's/commercial properties with pre-approval.

CV Water Counts

CV Water Counts was formed by the six water suppliers to provide education and awareness of water conversation to Valley residents and businesses. The group was formed in 2008 to reduce water demand, increase water supply, and improve water quality. The CV Water Counts website (**https://cvwatercounts.com/**) has informative links with educational resources, information on rebates for water saving devices, and upcoming water related events in the area. The CV Water Counts Program uses surveyed data from Coachella Valley residents to guide its water conservation messaging to achieve maximum local impact.

9.9.1.5 Programs to Assess and Manage Distribution System Real Losses

MDMWC controls water loss by comparing production with consumption, regular and frequent inspection of distribution facilities, advising customers of observed or suspected leakage downstream of meters, and immediate leak repair. Additionally, MDMWC is in the process of converting it's meters to AMI. AMI provides real-time data, which will allow MDMWC to quickly detect and repair leaks, further reducing losses.

9.9.1.6 Water Conservation Program Coordination and Staffing Support

MDMWC adopted a conservation policy in 2003 as part of its Rules and Regulations, encouraging efficiency in water use and actively discouraging the waste of water. The policy covers shortages, waste, and landscaping provisions.

MDMWC has recently added a conservation coordinator to its staff and is in the process of developing a formal water conservation program.

9.9.1.1 Landscape Conversion Rebate Program

Beginning in 2023, MDMWC offers rebates to its customers for converting their outdoor grass landscaping to desert-friendly landscaping, which requires less irrigation. For residential properties, the rebate consists of $3 per square foot of landscaping or turf, up to $6,000 per project. For homeowners associations and commercial properties, the rebate consists of $2 per square foot of landscaping or turf, up to $10,000 per project. Since 2023, 46 residential and 2 commercial/HOA rebates have been issued, amounting to a total of 77,307 square feet of turf conversion.

9.9.1.2 Other Demand Management Measures

MDMWC makes the following conservation assistance available to high consumption users or those who request it at no cost:

- Location and instructions on how to read water meter.
- Identifications of high consumption areas.
- Check for leakage.
- Irrigation schedule and check timers.
- Recommendations on sprinkler repair or improvements.
- Information on landscape conservation methods including water efficient design, maintenance, and plant selection.

9.9.2 Implementation

MDMWC has been implementing its conservation policy since 2003, and has continued to support water conservation over the past five years through the DMMs described herein. The conservation pricing, public outreach, and State-mandated measures due to the drought have all had a significant impact on reducing per capita demands. In addition, voluntary customer turf replacement has reduced MDMWC's largest demand component, landscape irrigation.

MDMWC has achieved its 2020 target per capita water use. MDMWC plans to continue support of its water conservation policy, water conservation program development, and implementation of DMMs to support water conservation as a way of life.

9.10 Plan Adoption, Submittal, and Implementation

This section addresses the CWC requirements for a public hearing, the adoption process for the RUWMP and MDMWC's WSCP, plan submittal, plan implementation, and the process for amending an adopted UWMP or WSCP.

9.10.1 Notice of Plan Preparation and Public Hearing

CWC Section 10621(b) requires that water suppliers notify cities and counties within their service area that the UWMP and WSCP are being updated at least 60 days prior to the public hearing. MDMWC issued a Notice of Plan Preparation stating that it was updating its plan and would hold a public hearing to consider adoption of the RUWMP and MDMWC's WSCP. MDMWC provided written notice to the cities and counties within its service area on March 25, 2026. These entities are identified in Table 9-25, and the notification letters are included in Appendix A of the RUWMP. MDMWC provided an additional notice to the cities and counties with the time and date of the public hearing

Table 9-25. DWR 10-1R Notification to Cities and Counties

	60 Day Notice	Notice of Public Hearing
City		
La Quinta	Yes	Yes
County		
Riverside County	Yes	Yes

Prior to the public hearing and in accordance with California Government Code §6066, MDMWC provided notice to the public through its website and published announcements of the public hearing in the newspaper on two occasions before the hearing. Copies of the proof of publication are included in Appendix A of the RUWMP.

9.10.2 Public Hearing and Adoption

MDMWC held a public hearing on June 11, 2026, located at 79-050 Avenue 42, Bermuda Dunes, CA 92203 to hear public comment and consider adopting this RUWMP and MDMWC 's WSCP. As part of the public hearing, MDMWC provided information on MDMWC's municipal water demand forecast and supply reliability assessment, as well as an overview of DMMs and the WSCP. The public hearing on the RUWMP and MDMWC's WSCP took place before the adoption of the Plans, which allowed the opportunity to modify the RUWMP and MDMWC's WSCP in response to public input before adoption. After the hearing, the Plans were adopted as prepared or as modified during the hearing.

The City's adoption resolution for the RUWMP and MDMWC's WSCP is included in Appendix F.

9.10.3 Plan Submittal

MDMWC will submit the standard tables electronically to DWR using the DWR Water Use Efficiency Data Portal along with a copy of the final RUWMP. The RUWMP will also be submitted to the California State Library and to the City of La Quinta and the County of Riverside, which MDMWC supplies water to, within 30 days of adoption.

MDMWC is not regulated by the California Public Utilities Commission, so notification to the Commission does not apply.

9.10.4 Public Availability

The RUWMP and MDMWC's WSCP will be available on the MDMWC website for public viewing within 30 days of filing the plans with DWR. Commencing no later than July 31, 2026, the RUWMP and WSCP will be available for public review at MDMWC's office (see address below) during regular business hours.

Myoma Dunes Mutual Water Company
79-050 Avenue 42
Bermuda Dunes, CA 92203

The final documents will also be posted on MDMWC's website at http://www.myomawater.com.

9.10.5 Amending an Adopted UWMP or WSCP

If MDMWC identifies the need to amend the 2025 RUWMP or MDMWC's WSCP, it will follow similar processes for notification of cities, counties, and the general public. MDMWC will hold a public hearing to consider the amended RUWMP or WSCP and will follow the same procedures for adoption, submittal, and implementation as the original plans.

Chapter 10 References

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Appendix A

Notification Letters and Newspaper Notices of Plan Preparation and Adoption Hearing (To be included in final)

Appendix B

Reduced Delta Reliance

Coachella Valley Regional Urban Water Management Plan

Quantifying Regional Self-Reliance and Reduced Reliance on Water Supplies from the Delta Watershed

April 2026

1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2025 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

The analysis presented here was developed on behalf of the six agencies participating in the 2025 Coachella Valley Regional Urban Water Management Plan (RUWMP). These six agencies include:

- Coachella Valley Water District
- Coachella Water Authority
- Desert Water Agency
- City of Indio
- Mission Springs Water District
- Myoma Dunes Mutual Water Company

This analysis is based on the water used to meet demands throughout the Coachella Valley.

2 Methodology

As stated in WR P1(c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for improved regional self-reliance and measurable reduction in Delta reliance. The expected outcomes for regional self-reliance and reduced Delta reliance were developed using the approach and guidance described in Appendix C of DWR's 2025 Urban Water Management Plan Guidebook issued in February 2026.

Key assumptions include:

- All data were obtained from the current 2025 RUWMP, UWMPs from previous years, the Draft 2027 Indio Subbasin Alternative Plan Update, or the Draft 2027 Mission Creek Subbasin Alternative Plan Update.
- While State Water Project (SWP) supplies are imported into the region to support long-term groundwater basin management and do not directly serve urban demands, estimated SWP imports were used in this analysis to understand Delta reliance.
- Demands represent average or normal water year conditions.
- Analyses were conducted at the regional scale and all data reflect the total contributions of the six RUWMP agencies as well as their customers.

This analysis uses a normal water year representation of 2010 as the baseline.

3 Regional Supplies from the Delta

Coachella Valley Water District and Desert Water Agency are State Water Project (SWP) Contractors. These agencies import SWP water for regional groundwater basin management in accordance with the Indio Subbasin Alternative Plan Update and Mission Creek Subbasin Alternative Plan Update, described in the RUWMP. SWP supply is used for long-term basin management and not for urban water supply.

Further, while these agencies anticipate increases in future SWP contract supplies through the Sites Reservoir and Delta Conveyance Projects, which will be used to ensure basin sustainability, the RUWMP agencies are also increasing recycled water and non-potable water use throughout the region.

4 Demonstration of Regional Self-Reliance

This analysis uses normal water year demands, rather than normal water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Table B-1 shows the results of adding water use efficiency savings back into the normal year demands to represent demands without water use efficiency savings.

Table B-2 estimates water demands without the water use efficiency calculated in Table B-1.

Table B-3 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. Table B-3 demonstrates that the agencies are measurably improving regional self-reliance. In the long-term (through 2050), the expected outcome for normal water year regional self-reliance is an increase of nearly 52 percent from the 2010 baseline. The results show that as a region, the agencies and their customers are measurably reducing reliance on the Delta and improving regional self-reliance.

Table B-4 demonstrates that the agencies are measurably reducing reliance on supplies from the Delta watershed. The results show that as a region, the agencies and their customers are improving regional self-reliance.

While the RUWMP agencies do not use Delta water supplies to meet urban demands, the SWP supplies that are imported to the region for basin management comprise an decreasing share of the region's water needs. The 2025 RUWMP summarizes continued progress in developing a diversified water portfolio to meet the region's water needs.

Table B-1: Optional Calculation of Water Use Efficiency -To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply

	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050
Service Area Water Use Efficiency Demands (Acre-Feet)									
Service Area Water Demands with Water Use Efficiency Accounted For	196,155	156,223	176,931	174,119	176,899	181,961	184,868	188,229	191,596
Non-Potable Water Demands [1]	1,158	1,158	1,158	1,372	6,758	6,758	6,758	6,758	6,758
Potable Service Area Demands with Water Use Efficiency Accounted For	197,313	157,381	175,773	172,747	170,141	175,203	178,110	181,471	184,838
Total Service Area Population									
Service Area Population	481,800	496,853	507,951	570,255	677,564	784,873	827,162	869,452	911,741
Water Use Efficiency Since Baseline (Acre-Feet)									
Per Capita Water Use (GPCD)	365	283	309	270	224	199	192	186	181
Change in Per Capita Water Use from Baseline (GPCD)	--	(83)	(57)	(95)	(141)	(166)	(173)	(179)	(184)
Estimated Water Use Efficiency Since Baseline	--	45,936	32,085	60,606	107,124	145,974	160,372	174,316	188,254
1 Non-potable water demands associated with non-urban uses (e.g., agriculture, golf courses) have been removed from the Delta Reliance calculations.									

Table B-2: Calculation of Water Demands Without Water Use Efficiency

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050
Service Area Water Demands with Water Use Efficiency Accounted For	196,155	156,223	176,931	174,119	176,899	181,961	184,868	188,229	191,596
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline	--	45,936	32,085	60,606	107,124	145,974	160,372	174,316	188,254
Service Area Water Demands without Water Use Efficiency Accounted For	196,155	203,317	207,858	233,353	277,265	321,177	338,482	355,787	373,092

Table B-3: Calculation of Supplies Contributing to Regional Self-Reliance

	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050
Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)									
Water Use Efficiency	--	45,936	32,085	60,606	107,124	145,974	160,372	174,316	188,254
Water Recycling	1,158	1,158	1,158	1,372	6,758	6,758	6,758	6,758	6,758
Stormwater Capture and Use	--	--	--	--	--	--	--	--	--
Advanced Water Technologies	--	--	--	--	--	--	--	--	--
Conjunctive Use Projects	--	--	--	--	--	--	--	--	--
Local and Regional Water Supply and Storage Projects	--	--	--	--	--	--	--	--	--
Other Programs and Projects that Contribute to Regional Self-Reliance	--	--	--	--	--	--	--	--	--
Water Supplies Contributing to Regional Self-Reliance	1,158	47,094	33,243	61,978	113,882	152,732	167,130	181,074	195,012
Service Area Water Demands without Water Use Efficiency (Acre-Feet)									
Service Area Water Demands without Water Use Efficiency Accounted For	196,155	203,317	207,858	233,353	277,265	321,177	338,482	355,787	373,092
Change in Regional Self Reliance (Acre-Feet)									
Water Supplies Contributing to Regional Self-Reliance	1,158	47,094	33,243	61,978	113,882	152,732	167,130	181,074	195,012
Change in Water Supplies Contributing to Regional Self-Reliance	--	45,936	32,085	60,820	112,724	151,574	165,972	179,916	193,854
Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)									
Percent of Water Supplies Contributing to Regional Self-Reliance	0.59%	23.16%	15.99%	26.56%	41.07%	47.55%	49.38%	50.89%	52.27%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		22.57%	15.40%	25.97%	40.48%	46.96%	48.79%	50.30%	51.68%

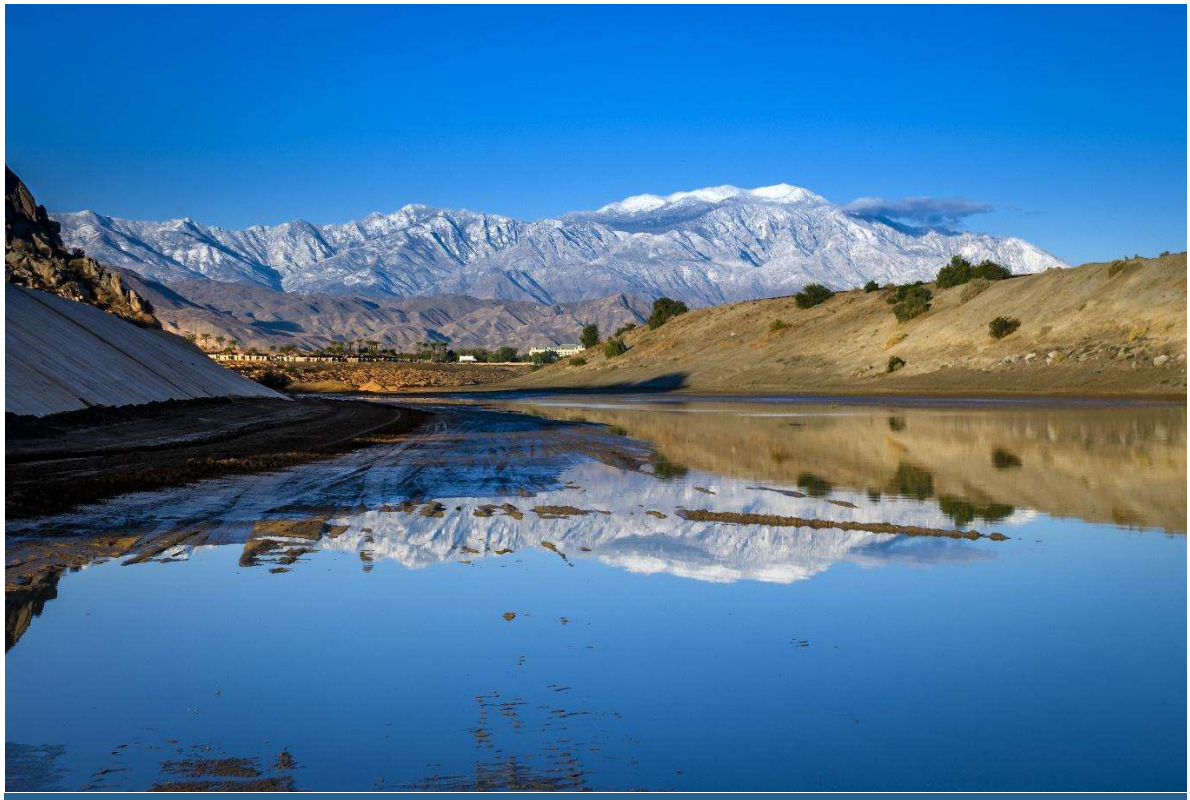
Table B-4: Calculation of Reliance on Water Supplies from the Delta Watershed

	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050
Water Supplies from the Delta Watershed (Acre-Feet)									
CVP/SWP Contract Supplies	124,224	95,109	112,578	89,286	89,018	88,750	88,482	88,215	87,947
Delta/Delta Tributary Diversions	--	--	--	--	--	--	--	--	--
Transfers and Exchanges of Supplies from the Delta Watershed	--	--	--	--	--	--	--	--	--
Other Water Supplies from the Delta Watershed	--	--	--	1,357	1,355	12,853	12,851	12,850	33,648
Total Water Supplies from the Delta Watershed	124,224	95,109	112,578	90,643	90,374	101,603	101,333	101,065	121,595
Service Area Water Demands without Water Use Efficiency (Acre-Feet)									
Service Area Water Demands without Water Use Efficiency Accounted For	196,155	203,317	207,858	233,353	277,265	321,177	338,482	355,787	373,092
Change in Supplies from the Delta Watershed (Acre-Feet)									
Water Supplies from the Delta Watershed	124,224	95,109	112,578	90,643	90,374	101,603	101,333	101,065	121,595
Change in Water Supplies from the Delta Watershed		(29,115)	(11,646)	(33,581)	(33,850)	(22,621)	(22,891)	(23,159)	(2,629)
Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)									
Percent of Water Supplies from the Delta Watershed	63.33%	46.78%	54.16%	38.84%	32.59%	31.63%	29.94%	28.41%	32.59%
Change in Percent of Water Supplies from the Delta Watershed		-16.55%	-9.17%	-24.49%	-30.73%	-31.69%	-33.39%	-34.92%	-30.74%

Appendix C

Water Shortage Contingency Plans

Coachella Valley Water District



Coachella Valley Water District
Water Shortage Contingency Plan

Final Draft

prepared on behalf of

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May 22, 2026

RINCON CONSULTANTS

WATER DISTRICT

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1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the Coachella Valley Water District (CVWD) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the CVWD governing board, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes the CVWD's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and CVWD governing board are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant CVWD the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

CVWD is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook (DWR 2026).

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for replenishment include:

- **Colorado River water** that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- **State Water Project (SWP) water** that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

CVWD's Colorado River water supplies meet the demands of agricultural and non-potable customers, as well as groundwater replenishment (to augment the Valley's potable water supply). With the 2007 Interim Guidelines for the Colorado River expiring in 2026, CVWD has been actively participating in the negotiations for the successor agreement. Although the terms of the agreement are still being negotiated, there is a likelihood that supply reductions may be necessary to respond to changes in the Colorado River hydrology. Any impacts to CVWD's supplies and resultant actions will be discussed with the CVWD Board and updated in CVWD's Canal Water Shortage Contingency Plan, which is Chapter 3.10, Article XII of CVWD's administrative code.

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus, reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for CVWD is presented in Section 4.7 of CVWD's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how CVWD intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible.

3 Annual Water Supply and Demand Assessment Procedures

CVWD is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and assess the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that CVWD will use to prepare the Annual Assessment. These are consistent procedures that CVWD will follow annually to determine whether to activate the WSCP.

3.1 Decision-Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	CVWD staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, individual agencies may elect to activate their WSCP at different shortage levels than other participating agencies.
April	CVWD staff make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, CVWD management present the recommendation to the governing board for consideration. If the governing board decides to implement the WSCP, provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	CVWD staff prepare the Annual Assessment and submit to DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

CVWD will rely on locally applicable criteria for each Annual Assessment. These criteria will include the findings of the Annual Reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. Findings from CVWD's annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated.

3.2.2 Water Supply

CVWD's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

CVWD will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4.7 of CVWD's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

CVWD will describe the anticipated use of water supplies for the coming year, with the assumption that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

CVWD will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. CVWD will verify that its system of wells, pipelines, pump stations, and storage tanks have adequate capacity to deliver the anticipated demands. CVWD will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

CVWD will describe any specific locally applicable factors that could influence or disrupt supplies. CVWD will also describe unique local considerations that are incorporated as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

The RUWMP participating agencies have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are described in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Shortage Response Actions
1	Up to 10%	Normal water supplies	Mandatory prohibitions defined by the state, rebate programs, ongoing restrictions that include water waste, and tiered rates or conservation penalties.
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions based on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to CVWD. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. CVWD may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by CVWD at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, CVWD continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. CVWD and DWA collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, the RUWMP participating agencies continue to implement water conservation measures and increase use of recycled water usage to reduce groundwater demand. CVWD's demand management programs are described in Section 4.9 of CVWD's chapter of the RUWMP.

In their WSCP, agencies have the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Increased Non-Potable Water Use	Volume	Medium	In areas where recycled water or other non-potable supply is available, customers could be mandated to use these supplies and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency to tailor its response to the unique characteristics of its service area. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- The benefits of tiered rates in allowing customers to pay less for their basic efficient use and more for higher use.
- A balanced program should include incentives (such as expanded rebates for turfgrass removal) as well as penalties (such as drought or conservation penalties).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, CVWD may implement some or all of the actions as needed, depending on actual conditions.

As described in Section 4.9 of CVWD's chapter of the RUWMP, CVWD implements demand management measures (DMMs) to increase water use efficiency. The RUWMP includes description of water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation.

CVWD implements mandatory restrictions on water use through its Landscape Ordinance provided in Attachment A. This ordinance includes prohibitions on the installation of non-functional turf in new development and penalties for violation of inefficient landscape irrigation runoff. Through this ordinance, customers who may be exceeding Maximum Applied Water Allowance provided by CVWD may be interviewed for water usage to ensure compliance and may be found to have service discontinued if causing water waste.

Table 4. Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	1.1	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	Yes
	1.2	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	Yes
	1.3	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	Yes
	1.4	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	Yes
	1.5	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	Yes
	1.6	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	Yes
	1.7	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	1.8	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	1.9	Agency shall discourage overseeding.	Volume	Low	No
	1.10	Agency shall provide rebates for landscape efficiency.	Volume	High	No
	1.11	Agency shall offer water use surveys/audits.	Volume	Medium	No
	1.12	Agency shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No
	1.13	Agency may impose water budget based tiered rates or conservation penalties to encourage water use efficiency	Volume	Medium	Yes

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	2.1	During times designated by the CVWD Board, outdoor water use is prohibited for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	2.2	Restaurants can serve water only on request.	Volume	Low	No
	2.3	Agency shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	2.4	Agency shall actively discourage overseeding.	Volume	Medium	No
	2.5	Agency shall expand public information campaign.	Volume	Medium	No
	2.6	Agency shall increase water waste patrols.	Volume	Medium	Yes
	2.7	Agency shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	3.1	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	3.2	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	3.3	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	3.4	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	3.5	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	3.6	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	3.7	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	3.8	Agency shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new State laws regarding limitations on such enforcement.	Volume	Low	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
	3.9	Agency shall strengthen customer billing messages with use comparisons.	Volume	Medium	No
	3.10	Agency shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	3.11	Agency shall expand rebate programs.	Volume	Medium	No
	3.12	Agency shall impose mandatory drought penalties	Volume	High	Yes
4	4.1	Turfgrass landscapes may not be watered except where subterranean or non-potable water systems are used	Volume	High	Yes
	4.2	Agency shall increase mandatory drought penalties from 3.12.	Volume	High	Yes
	4.3	Agency shall expand public information campaign.	Volume	Medium	No
5	5.1	Watering turfgrass is prohibited.	Volume	High	Yes
	5.2	The use of misting systems is prohibited.	Volume	Medium	Yes
	5.3	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	5.4	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	5.5	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	5.6	Agency shall increase mandatory drought penalties from 4.2.	Volume	High	Yes
	5.7	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes
6	6.1	Commercial nurseries shall discontinue all use of potable water for watering and irrigation.	Volume	Low	Yes
	6.2	Watering of livestock is permitted as necessary.	Volume	N/A	Yes
	6.3	Outdoor water use is prohibited.	Volume	High	Yes
	6.4	Restaurants must use disposable cups, plates, and utensils.	Volume	Low	Yes
	6.5	Agency shall implement mandatory rationing.	Volume	High	Yes

5.3 Operational Changes

CVWD has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4. CVWD may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

CVWD has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in the agency's Emergency Response Plan (ERP). CVWD's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available.

CVWD's ERP outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

Five of the RUWMP participating agencies collaborate on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because the agencies use local groundwater to meet urban demands, the agencies could continue to meet short-term urban demands with groundwater production. The agencies have installed backup generators at key water production facilities to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA. CVWD has plans to make emergency repairs to the Coachella Canal. CVWD staff receives regular Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and drills are conducted routinely. CVWD remotely monitors the status of most key facilities at CVWD headquarters, which enables them to detect areas affected by disasters. The other RUWMP participating agencies also participate in ICS training and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. It could also lead to increased groundwater pumping by non-urban users who normally use imported canal water. CVWD would implement levels of this WSCP as needed if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires the agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

CVWD is a participant in the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) which was updated in 2025 (Riverside County 2023). The Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies and actions to reduce the impacts of a seismic event. The RUWMP

participating agencies continue to include seismic risk assessment in their planning process for system improvements.

Additionally, CVWD has also prepared and implements its own LHMP which was updated in 2024 (CVWD 2024). The CVWD LHMP is used to identify short- and long-term policies, programs, and other activities to reduce risk of CVWD assets and protect residents following hazard events.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly. Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assumes all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. CVWD will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of CVWD's service area. CVWD will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update conservation messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update conservation messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update conservation messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Increase promotion of ongoing WUE programs/tools with targeted promotion to highly impacted customers.	Increase promotion of ongoing WUE programs/tools with targeted promotion to highly impacted customers.	Suspend promotion of long-term WUE programs/tools to focus on imminent needs.
Standard conservation campaign including promotion of water efficiency rebate programs.	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to customers as needed and to the media upon request; promote water assistance programs to vulnerable populations; enhance outreach to impacted industries and customers.	Supplement Level 2 outreach with additional tactics as needed; provide regular condition updates to customers and the media as needed; promote water assistance programs to vulnerable populations; increase outreach to impacted industries and customers.	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to customers and the media as needed; promote water assistance programs to vulnerable populations; increase outreach to impacted industries and customers.
Board reports on public communication and water-use efficiency outreach activities via the monthly General Manager's Report.	Provide updates to elected officials, civic leaders, and the board as needed.	Provide conservation updates to the board as needed; issue briefings with elected officials, civic and business leaders as needed.	Continue providing board reports and briefings as needed; issue briefings with elected officials, civic and business leaders as needed.
Standard coordination with regional partners including other water agencies.	Enhance coordination with local neighboring agencies, regional partners and local/state/federal policy makers as needed.	Continue enhanced coordination with local neighboring agencies, regional partners and local/state/federal policy makers as needed.	Increase enhanced coordination with neighboring agencies, regional partners, and local/state/federal policy makers as needed (e.g. daily or weekly briefings or email updates, etc.).

7 Compliance and Enforcement

This section describes how CVWD will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6. As described in Section 4.9 of CVWD's chapter of the RUWMP, CVWD Landscape and Irrigation System Design Ordinance includes prohibitions on the installation of non-functional turf in new development and penalties for non-compliance with the Ordinance. Through this ordinance, customers who may be exceeding Maximum Applied Water Allowance provided by CVWD may be interviewed for water usage to ensure compliance and may be found to have service discontinued if causing water waste.

Table 6. Enforcement Actions

Water Shortage Level	First Three Violations	Fourth Violation (within rolling 12 months)	Fifth Violation (within rolling 12 months)	Subsequent Violations	Additional Information
1 - 6	Notice of non-compliance	$50 Fine	$100 Fine	$200 fine, followed by $500 fine followed by $1,000 fine, followed by $2,000 fine	The General Manager may initiate procedures to terminate water service, seek injunctive relief in the Superior Court, or take enforcement action, including discontinuing or appropriately limiting water service by the installation of a flow restricting device to any customer, for more than six violations of the Ordinance in a rolling twelve-month period.

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that CVWD relies upon to implement the shortage response actions and the associated enforcement actions.

CVWD's District Code Section 3.30 codifies the WSCP (CVWD 2026). A copy of the legal authority is included in Attachment B.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, CVWD shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

CVWD shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 7 contains a list of contacts for all cities or counties for which the RUWMP participating agencies provide service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Imperial County	Office of Emergency Services	X					
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of La Quinta	Emergency Management Division	X			X	X	
City of Indio	Emergency Services Coordinator	X	X		X		
City of Coachella	Emergency Services Coordinator	X	X		X		
City of Palm Desert	Emergency Services Coordinator	X					
City of Cathedral City	Emergency Manager	X		X			
City of Indian Wells	Emergency Services Coordinator	X					
City of Rancho Mirage	Emergency Services Coordinator	X					
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to CVWD of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Financial Impacts and Mitigation Action

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions
- Economic impacts associated with water-dependent businesses in the service area Potential mitigation measures include:
- Triggering drought rate structures or surcharges
- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced imported water availability and/or water production)
- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge
- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative source of funding, such as state or federal grants or loans
- Other financial management mechanisms

CVWD will monitor financial conditions during a water shortage and take appropriate actions as needed. CVWD maintains financial reserves that can be used to continue operations during a period of reduced water sales. CVWD has the ability to increase water rates or implement surcharges or penalties to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. CVWD may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

CVWD currently has Operating and Capital Improvement Program reserves, funded and available for use as intended. In the short term, the use of these reserves would have no impact on CVWD customers or CVWD. In the long term, rates would possibly be raised to replenish reserves.

10 Monitoring and Reporting

This section describes how CVWD will monitor and report on implementation of the WSCP.

CVWD will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving their intended water use reduction purposes. CVWD will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. CVWD will gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies, as needed.

CVWD will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and imported water connection point is also metered, and production records will be used to observe trends in water production. Levels in reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks. CVWD staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

For agencies that have budget-based rates, the consumption by customers will be compared to the water budgets to determine effectiveness of response actions. For agencies without defined water budgets for each customer, the consumption records will be aggregated by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

CVWD will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If CVWD determines that the shortage response actions are not effective in producing the desired results, CVWD will initiate a process to refine the WSCP. CVWD will consider the addition of new shortage response actions, or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from agency staff, customers, industry experts, and the general public.

The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while pools and spas (recreational water features) use potable water for health and safety considerations. However, this distinction does not apply to the hot mineral spring pools and spas throughout the Desert Hot Springs area; while they are recreational, they also do not rely on potable water.

13 Plan Adoption, Submittal, and Availability

This 2025 WSCP was presented for adoption at the CVWD public meeting on May 27, 2026. Notifications were sent to the cities and counties as described in CVWD's 2025 UWMP. To comply with the notice to the public, CVWD published notices in the local newspaper at least two weeks in advance with five days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on May 27, 2026, by CVWD Ordinance, included in the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at CVWD's office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within CVWD's service area within 30 days of adoption.

Based on DWR's review of the WSCP, CVWD will make any amendments in its adopted WSCP, as required and directed by DWR. If CVWD revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Attachment A. Coachella Valley Water District Landscape and Irrigation Design Criteria Ordinance

ORDINANCE NO. 1302.5

AN ORDINANCE OF THE COACHELLA VALLEY WATER DISTRICT ESTABLISHING LANDSCAPE AND IRRIGATION SYSTEM DESIGN CRITERIA

Sections:

0.00.010	Purpose and Intent
0.00.020	Definitions
0.00.030	Provisions for New or Rehabilitated Landscapes
0.00.040	Other Provisions
0.00.050	Review and Program Monitoring Fees
0.00.060	Appeals
0.00.070	Penalties
0.00.080	Hearing Regarding Penalties
0.00.090	Appeal of Penalties

0.00.010 Purpose and Intent

A. The California State Legislature has found:

1. The waters of the state are of limited supply and are subject to ever increasing demands;
2. The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future users;
3. It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
4. Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;
5. Landscape design, installation, maintenance and management can and shall be water efficient; and
6. Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste and unreasonable method of use.

B. Consistent with these legislative findings, the purpose of these criteria is to:

1. Promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;
2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires

cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. Establish provisions for water management practices and water waste prevention for existing landscapes;

4. Use water efficiently without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use to the lowest practical amount; and

5. Promote the benefits of consistent landscape criteria with neighboring local and regional agencies.

C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65593, Government Code, Reference: Sections 65591, 65593, 65596 Government Code.

D. It is the intent of these criteria to promote water conservation through climate-appropriate plant material and efficient irrigation systems, and to create a "Lush and Efficient" landscape theme through enhancing and improving the physical and natural environment.

E. Applicability

1. These criteria shall apply to all of the following landscape projects:

   a. New construction and rehabilitated landscapes for public agency projects and private development projects requiring a building or landscape permit, plan check or design review;

   b. New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects requiring a building or landscape permit, plan check or design review;

   c. New construction and rehabilitated landscapes which are homeowner-provided and/or homeowner-hired in homeowner-occupied single family and multi-family residential projects with a total project landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review; and

   d. Existing landscapes limited to section 0.00.040 (B).

   e. Any residential project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix H.

2. These criteria do not apply to:

   a. Registered local, state or federal historical sites;

   b. Ecological restoration projects that do not require a permanent irrigation system;

c. Mined-land reclamation projects that do not require a permanent irrigation system; or

d. Plant collections, as part of botanical gardens and arboretums open to the public.

0.00.020 Definitions

The words used in this section have the meanings set forth below:

ANTIDRAIN VALVE or CHECK VALVE - A valve located under/in a sprinkler head to hold water in the system to eliminate drainage from the lower elevation sprinkler heads.

APPLICATION RATE - The depth of water applied to a given area, usually measured in inches per hour. Also known as precipitation rate (sprinklers) or emission rate (drippers/microsprayers) in gallons per hour.

APPLIED WATER - The portion of water supplied by the irrigation system to the landscape.

AUTOMATIC CONTROLLER - An electronic or solid-state timer capable of operating valve stations to set the days, time and length of time of a water application.

BACKFLOW PREVENTION DEVICE - A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

BENEFICIAL USE - Water used for landscape evapotranspiration.

BILLING UNITS - Units of water (100 cubic feet = 1 billing unit = 748 gallons = 1 CCF) for billing purposes. To convert gallons per year to 100 cubic feet per year, divide gallons per year by 748. (748 gallons = 100 cubic feet).

CONVERSION FACTOR (0.62) - A number that converts the Maximum Applied Water Allowance from acre-inches per acre to gallons per square foot. The conversion factor is calculated as follows:

(325,851 gallons/43,560 square feet)/12 inches	= (0.62)
325,851 gallons	= one acre-foot
43,560 square feet	= one acre
12 inches	= one foot

DESERT LANDSCAPE - A desert landscape using native plants spaced to look like a native habitat.

DISTRIBUTION UNIFORMITY - A measure of how evenly sprinklers apply water. The low-quarter measurement method (DULQ) utilized in the irrigation audit procedure is utilized for the purposes of these criteria. These criteria assume an attainable performance level of 75% DULQ for spray heads, 80% DULQ for rotor heads and 85% DULQ for recreational turf grass rotor heads.

DISTRICT – Coachella Valley Water District.

DRIP IRRIGATION - A method of irrigation where the water is applied slowly at the base of plants without watering the open space between plants.

ECOLOGICAL RESTORATION PROJECT - A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

EFFECTIVE PRECIPITATION or USABLE RAINFALL - The portion of total natural precipitation that is used by the plants, usually assumed to be three inches annually. Precipitation or rainfall is not considered a reliable source of water in the desert.

ELECTRONIC CONTROLLERS - Time clocks that have the capabilities of multiprogramming, water budgeting and multiple start times.

EMISSION UNIFORMITY - A measure of how evenly drip and microspray emitters apply water. The low-quarter measurement method (EULQ) utilized in the landscape irrigation evaluation procedure is utilized for the purposes of these criteria. These criteria assume 90% EULQ for drippers, microsprays and pressure compensating bubblers.

EMITTER - Drip irrigation fittings that deliver water slowly from the watering system to the soil.

ESTABLISHED LANDSCAPE - The point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape.

ESTIMATED TOTAL WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.

ESTIMATED ANNUAL TOTAL APPLIED WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated annual total applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

EVAPOTRANSPIRATION or ET - The quantity of water evaporated from adjacent soil surfaces and transpired by plants expressed in inches during a specific time.

ET ADJUSTMENT FACTOR - A factor of 0.45 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

FINISHED GRADE – Grade height after surface mulch covering has been installed.

FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute or cubic feet per second).

HARDSCAPE - Concrete or asphalt areas including streets, parking lots, sidewalks, driveways, patios and decks.

HEAD-TO-HEAD COVERAGE - One hundred percent sprinkler coverage of the area to be irrigated, with maximum practical uniformity.

HIGH FLOW CHECK VALVE - A valve located under/in a sprinkler head to stop the flow of water if the spray head is broken or missing.

HYDROZONE - A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated hydrozone.

INFILTRATION RATE - The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent and .90 or 90 percent for drip systems.

LANDSCAPE IRRIGATION AUDIT - A process to perform site inspections, evaluate irrigation systems and develop efficient irrigation schedules.

LANDSCAPED AREA - The planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance Calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

LATERAL LINE - The water delivery pipeline that supplies water to the emitters sprinklers from a valve.

LOCAL AGENCY – A city, county, or water purveyor responsible for adopting and implementing the ordinance. The local agency is also responsible for enforcement of the ordinance, including, but not limited to, approval of a design review, permit, plan check, or inspection of a project.

MAIN LINE - The pressurized pipeline that delivers water from the water source to a valve or outlet.

MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area as specified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 492.4. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the landscaped area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance . Special Landscape Areas, include recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1. MAWA = (ETo)(0.62)[(ETAF x LA) + ((1-ETAF) X SLA)].

MICROIRRIGATION - See drip irrigation.

MULCH - Any organic materials such as leaves, bark, straw or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.

NATIVE PLANTS - Native plants are low water using plants that are:
1) indigenous to the Coachella Valley and lower Colorado Desert region of California and Arizona, 2) native to the southwestern United States and northern Mexico or 3) native to other desert regions of the world, but adapted to the Coachella Valley.

NATURAL GRADE – Grade height of native soil before application of surface mulch.

NON-POTABLE WATER – Canal water or treated or recycled wastewater of a quality suitable for non-potable uses such as landscape irrigation. Non-potable water is not for human consumption.

OPERATING PRESSURE - The pressure at which an irrigation system's sprinklers, bubblers, drippers or microsprays are designed to operate, usually indicated at the base of an irrigation head.

OVERHEAD SPRINKLER IRRIGATION STATIONS - Sprinklers with high flow rates (spray heads, impulse sprinklers, gear rotors, etc.) that are utilized to apply water through the air to large irrigated areas.

OVERSPRAY - The water which is delivered beyond the landscaped area onto pavements, walks, structures or other non-landscape areas. Also known as hardscape applications.

PLANT FACTOR - A factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate

water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Reference: Water Use Classifications of Landscape Species IV (WUCOLS IV).

PRESSURE COMPENSATING (PC) BUBBLER – An emission device that allows the output of water to remain constant regardless of input pressure. Typical flow rates for this type of bubbler range between 0.25 gpm to 2.0 gpm.

PRESSURE COMPENSATING SCREENS/DEVICES - Small screens/devices inserted in place of standard screens/devices that are used in sprinkler heads for radius and high pressure control.

QUALIFIED PROFESSIONAL - A person who has been certified by their professional organization or a person who has demonstrated knowledge and is locally recognized as qualified among landscape architects due to longtime experience.

RAIN-SENSING DEVICE - A system which automatically shuts off the irrigation system when it rains.

RECYCLED WATER/RECLAIMED WATER - Treated or recycled wastewater of a quality suitable for nonpotable uses such as landscape irrigation. Recycled water is not for human consumption.

RECORD DRAWING or AS-BUILTS - A set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

RECREATIONAL AREA - Areas, excluding private single family residential lots, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.

R

REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. Reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.

REHABILITATED LANDSCAPE - Any re-landscaping project in which the choice of new plant material and/or new irrigation system components is such that the calculation of the site's estimated water use will be significantly changed. The new estimated water use calculation must not exceed the Maximum Applied

Water Allowance (MAWA) calculated for the site using a 0.45 ET adjustment factor.

RIPARIAN PLANTS - Riparian plants are high water using and water-loving plants that are found growing naturally along flowing rivers and lake shores. They may also be native to wet swampy areas with high water tables or poor drainage.

RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and which flows from the planted area.

SERVICE LINE - The pressurized pipeline that delivers water from the water source to the water meter.

SMART CONTROLLER – Weather-based or soil moisture-based irrigation controls that monitor and use information about environmental conditions for a specific location and landscape (such as soil moisture, rain, wind, the plants' evaporation and transpiration rates and, in some cases, plant type and more) to automatically control when to water and when not to, providing exactly the right amount of water to maintain lush, healthy growing conditions.

SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil.

SOIL TEXTURE - The classification of soil based on the percentage of sand, silt and clay in the soil.

SPECIAL LANDSCAPE AREA (SLA) – An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, water features using recycled water or water features using non-potable canal water created solely to act as an irrigation reservoir.

SPRINKLER HEAD - A device which sprays water through a nozzle.

STATIC WATER PRESSURE - The pipeline or municipal water supply pressure when water is not flowing.

STATION - An area served by one valve or by a set of valves that operate simultaneously.

TURF - A surface of earth containing mowed grass with roots.

VALVE - A device used to control the flow of water in the irrigation system.

WATER FEATURE - Any water applied to the landscape for nonirrigation, decorative purposes. Fountains, streams, ponds and lakes are considered water features. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water.

WATER SYSTEM - The network of piping, valves and irrigation heads.

WUCOLS IV - Water Use Classifications of Landscape Species IV

0.00.030 Provisions for new or rehabilitated landscapes

A. Submittal and Approval of a Landscape Documentation Package

1. Prior to construction, the project applicant shall:

   a. Submit two copies of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.

   b. Submit one copy of the Landscape Documentation Package to the local agency (city/county).

2. Upon receipt of the Landscape Documentation Package, the District shall:

   a. Review the Landscape Documentation Package.

   b. Approve or deny the Landscape Documentation Package.

3. Upon approval of the Landscape Documentation Package, the District will:

   a. Sign and date the approved plans and return them to the project applicant.

   b. Submit a copy of the project's Water Efficient Landscape Worksheet (Appendix B) to the local agency.

4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:

   a. Receive an approval of the landscape design review or plan check.

   b. Finalize the Certificate of Completion, including recording the date of the approval.

   c. File the Certificate of Completion with the District and the local agency, and provide a copy to the property owner or designee.

   d. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.

5. Each Landscape Documentation Package shall include the following elements:

   a. A completed Landscape Documentation Package Checklist (Appendix A), which includes the date, project applicant, and project address information. This checklist serves to verify that the elements of the Landscape Documentation Package have been completed.

   b. Total landscaped area (square feet)

   c. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed, etc.)

   d. Water Efficient Landscape Worksheet (Appendix B), which may be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:

      i. Hydrozone Information Table (reference Appendix C)

   e. Water Budget Calculations (reference Appendix D) that adhere to the following requirements:

      i. The plant factor used shall be from WUCOLS. The plant factors ranges from 0 to 0.3 for the low use plants, from 0.4 to 0.6 for the moderate use plants, from 0.7 to 1.0 for the high use plants and 1.1 to 1.2 for water features.

      ii. All water features shall be included in the 1.1 to 1.2 hydrozone and temporary irrigated areas shall be included in the low water use hydrozone. For the calculation of the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use, a project applicant shall use ETo values from the Reference Evapotranspiration Table, Appendix C. For geographic areas not covered in Appendix C, use data from other cities located nearby in the same reference evapotranspiration zone.

   f. Landscape Design Plan

   g. Irrigation Design Plan

   h. Grading Design Plan (as required)

   i. Soil Management Report (as required)

   j All plans must contain a signature block for both the local agency and the District.

6. The Landscape Documentation Package shall be submitted by the following procedure:

   a. The applicant or applicant's representative may bring, send or ship copies of the Landscape Documentation Package to the District, and the local agency, as applicable. Appropriate fees must accompany the Landscape Documentation Package.

b. The plans will normally be returned to the applicant or local agency with comments by the District (Water Management Department) within ten working days of receipt.

c. After noted corrections have been made, the applicant shall re-submit the Landscape Documentation Package to the District for approval and signing by the Water Management Department and Development Services Department for the District.

d. Signed plans will be held at the District's Palm Desert office for applicant pick up or sent by certified shipping at the applicant's request and expense.

e. For direct communication:

Telephone No.:	(760) 398-2651 Water Management Department
Mailing Address:	Coachella Valley Water District Attention: Water Management Department Post Office Box 1058 Coachella, California 92236
Hand Delivery or Shipping Address:	Coachella Valley Water District Attention: Water Management Department 85-995 Avenue 52 Coachella, California 92236
Hand Delivery or Shipping Address:	Coachella Valley Water District Attention: Water Management Department 75-525 Hovley Lane East Palm Desert, California 92211

f. The District will inspect the landscaped area(s) for conformance with the approved Landscape Documentation Package. Landscaping that does not conform to the approved Landscape Documentation Package is subject to penalties as provided in Section 0.00.070.

7. Upon review and approval of the Landscape Documentation Package by the District, the project applicant shall:

a. Submit a copy of the District-approved Landscape Documentation Package and Water Efficient Landscape Worksheet to the local agency.

b. Provide the property owner or site manager a copy of the District-approved Landscape Documentation Package, in addition to the record drawings and any other information normally forwarded to the property owner or site manager.

8. Upon review and approval of the Landscape Documentation Package by the local agency, the project applicant shall:

   a. Record the date of the permit on the Certificate of Completion.

   b. Provide the property owner or designee a copy of the local-agency approved Landscape Documentation Package, in addition to the record drawings, and any other information normally forwarded to the property owner or designee.

B. Landscape Design Plan

A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation package. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project.

1. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To encourage the efficient use of water the following is highly recommended:

   a. Protection and preservation of native species and natural vegetation;

   b. Selection of water-conserving plant and turf species;

   c. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and

   d. Selection of plants from local and regional landscape program plant lists.

2. Specifications for Landscape Design Plan
   The landscape design plan shall be drawn on 36-inch by 24-inch project base sheets at a scale that accurately and clearly identifies the following:

   a. Tract name, tract number or parcel map number on cover sheet.

   b. Proposed planting areas.

   c. Plant material location and size.

   d. Plant botanical and common names.

   e. Plant spacing, where applicable.

   f. Natural features including, but not limited to, rock outcroppings, and existing trees and shrubs that will remain incorporated into the new landscape.

   g. Vicinity map showing site location on top sheet or on cover sheet.

   h. Title block on each sheet with the name and address of the project, and the name and address of the professional design company with its signed professional stamp, if applicable.

i. Reserve two 6-inch by 3-inch spaces for a) the local agency signature block and b) a District signature block in lower right corner of the cover sheet and on all of the landscape, irrigation design/detail/specification sheets. The District signature block can be found on the Professional Landscaper section of the Conservation page at cvwd.org.

j. Show plan scale and north arrow on design sheets.

k. Show graphic scale on all design sheets.

l. Show all property lines and street names.

m. Show all paved areas, such as driveways, walkways and streets.

n. Show all pools, ponds, lakes, fountains, water features, fences and retaining walls.

o. Show locations of all overhead and underground utilities within project area.

p. Provide an index map, as necessary, showing the overall project, including all 1/4 and 1/16 section lines and section numbers.

q. Show this note on each design sheet stating, "No permanent structures or trees within CVWD and/or USBR easements. CVWD will not be responsible for damage or replacement of any surface improvements, including but not limited to, decorative concrete, landscaping, curb, gutter, sidewalks, planters, gates and related improvements installed within CVWD and/or USBR easements."

In addition, no trees shall be installed within 15' of a CVWD and/or USBR pipeline. Surface improvements may be installed within CVWD and/or USBR easements only upon the prior consent of CVWD, which consent may be granted or denied at CVWD's sole discretion. In the event of such consent, then a Non-interference review letter (NIRL) may apply per Section 3.4 of CVWD's Development Design Manual.

r. Show Maximum Applied Water Allowance (MAWA) for the proposed project. (See formula in Appendix C and Sample MAWA, Appendix D.)

s. Show total landscaped area in square feet. Separate area square footages by hydrozone. Show the total percentage area of each hydrozone. Include total area of all water features as separate hydrozones of still or moving water. Show Estimated Total Water Use, for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.

t. Show Total Estimated Total Water Use for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.

u. Show Total Estimated Water Use (ETWU) for the entire project. (Formula in Appendix C and on Sample Calculation Estimated Water Use, Appendix D.) The Total Estimated Use shall not exceed the Maximum Applied Water Allowance (MAWA).

The Estimated Total Water Use (ETWU) for a phase within a tract may exceed the Maximum Applied Water Allowance for that phase so long as the ETWU does not exceed the MAWA within the overall tract. In the event this occurs calculations showing all phase totals should be imbedded within each plan submission for the tract.

v. Designate recreational areas and recreational turf areas.

w. When model homes are included, show the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (by hydrozone with totals) for each model unit.

3. Landscape Design Criteria

a. The landscape design must be carefully planned and take into account the intended function of the project.

b. Plants' appropriateness shall be selected based upon their adaptability to the climatic, geologic and topographical conditions of the site.

c. Selection of water-efficient and low-maintenance plant material is required.

d. All planted areas must be a minimum of one inch below adjacent hardscapes to eliminate runoff and overflow.

e. Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. Areas less than 10 feet in width shall not be designed with turf. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.

f. Turf areas irrigated with spray/rotor systems must be set back at least 24 inches from curbs, driveways, sidewalks or any other area that may result in runoff of water onto streets. An undulating landscape buffer area created by the setback shall be designed with rocks, cobble or decomposed granite and/or can be landscaped with drip irrigated shrubs/accents or covered with a suitable ground cover.

g. Plants having similar water use shall be grouped together in distinct hydrozones.

h. The use of a soil covering mulch or a mineral groundcover of a minimum three-inch depth to reduce soil surface evaporation is required around trees, shrubs and on nonirrigated areas. The use of

boulders and cobble shall be considered to reduce the total vegetation area.

i. Annual color plantings shall be used only in areas of high visual impact and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater. Otherwise, drip irrigated, perennial plantings should be the primary source of color.

j. Native desert plants shall be specified to be planted in a shallow, wide, rough hole two times the root ball width. The root ball will be set on either undisturbed native soil or a firmed native soil. The root ball top will be set even with the finished surface grade or above grade if the soil is poorly drained. The hole must be backfilled with native soil. Extra soil may be used to mound up around plants where the soil is poorly drained.

k. Landscaping must not obstruct or interfere with street signs, lights or road/walkway visibility. Screening may be provided by walls, berms or plantings.

l. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

m. Use locally approved plant materials lists in the selection of appropriate plants.

n. Planter islands in parking lots with canopy trees shall be sized to meet local land use agency requirements.

o. A landscape plan in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291 (a) and (b). Avoid fire-prone plant material and highly flammable mulches.

p. The use of invasive and/or noxious plant species is prohibited.

q. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group (California Civil Code, Section 1353.8).

D. Grading Design Plan

1. For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.

2. The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including;

a. Height of graded slopes;

b. Drainage patterns;

c. Pad elevations;

d. Finish grade; and

e. Stormwater retention improvements, if applicable.

3. To prevent excessive erosion and runoff, it is highly recommended, and per local agency requirements, that project applicants:

   a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

   b. Avoid disruption of natural drainage patterns and undisturbed soil; and

   c. Avoid soil compaction in landscape areas.

4. The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading plan."

5. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

6. Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff must be confirmed during an irrigation audit.

7. All grading must retain normal stormwater runoff and provide for an area of containment. All irrigation water must be retained within property lines and not allowed to flow into public streets or public rights-of-way. Where appropriate, a simulated dry creek bed may be used to convey storm drainage into retention areas. A drywell shall be installed if the retention basin is to be used as a recreational area.

8. Mounded or sloped planting areas that contribute to runoff onto hardscape are prohibited. Sloped planting areas above a hardscaped area shall be avoided unless there is a drainage swale at toe of slope to direct runoff away from hardscape.

9. Median islands must be graded to prevent stormwater and excess irrigation runoff.

E. Irrigation Design Plan

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufactures recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan

meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or be a privately owned submeter installed at the irrigation point of connection on the customer service line. When irrigation water is from a well, the well shall be metered. The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as, the landscape design plan. The irrigation system specifications shall accurately and clearly identify the following:

1. Specifications for Irrigation Design.
    a. Control valves, manufacturer's model number, size and location.
    b. Irrigation head manufacturer's model number, radius, operating pressure, gallons per minute/gallons per hour (gpm/gph) and location.
    c. Piping type, size and location.
    d. Point of connection or source of water and static water pressure.
    e. Meter location and size (where applicable).
    f. Pump station location and pumping capacity (where applicable).
    g. Power supply/electrical access and location.
    h. Plan scale and north arrow on all sheets.
    i. Graphic scaling on all irrigation design sheets.
    j. Irrigation installation details and notes/specifications.
    k. The irrigation system shall be automatic, constructed to discourage vandalism and simple to maintain.
    l. All equipment shall be of proven design with local service available.
    m. Show location, station number, size, and design gpm of each valve on plan. Control valves shall be rated at 200 psi.
    n. Visible sprinklers near hardscape shall be of pop-up design.
    o. All heads should have a minimum number of wearing pieces with an extended life cycle.
    p. Sprinklers, drippers, valves, etc., must be operated within manufacturer's specifications.
    q. Manual shut-off valves shall be fully ported ball valves or butterfly valves. Manual shut-off valves are required upstream of automatic valve manifolds.

r. Master valves shall be metal, located as close to the point of connection as possible, and be metal piped between the master valve and the water meter.

s. High flow sensors that detect and report high flow conditions created by system damage or malfunction shall be specified for all projects where a dedicated landscape irrigation meter is required.

t. The following statement "I have complied with the criteria of the ordinance and have applied them accordingly for the efficient use of water in the irrigation design plan;" and

u. The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, landscape contractor or any other person authorized to design an irrigation system.

2. Specifications for Irrigation Efficiency

The minimum irrigation efficiency shall be 0.75 (75%). Greater irrigation efficiencies are expected from well-designed and maintained systems. The following are required:

a. Design spray head and rotor head stations with consideration for worst wind conditions. Close spacing and low-angle nozzles are required in high and frequent wind areas (ETo Zone No. 5).

b. Spacing of sprinkler heads shall not exceed manufacturer's maximum recommendations for proper coverage. The plan design shall show a minimum of 0.75 (75%) distribution uniformity.

c. Only irrigation heads with matched precipitation rates shall be circuited on the same valve.

d. Valve circuiting shall be designed to be consistent with hydrozones.

e. Individual hydrozones that mix plants that are moderate and low water use may be allowed if:

(i) plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or

(ii) the plant factor of the higher water using plant is used for the calculations.

f. Individual hydrozones that mix high and low water use plants shall not be permitted.

g. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table. This table can assist with pre-inspection and final inspection of the irrigation system, and programming the controller.

3. Irrigation System Criteria

a. Reduced pressure backflow prevention devices shall be installed behind meter at curb by the District.

b. Show location, station number, size and design gpm of each valve on plan.

c. Smart Controllers shall be specified for all projects. This includes climate based or sensor based controllers, which can automatically adjust for local weather and/or site conditions.

d. High flow check valves shall be installed in or under all heads adjacent to street curbing, parking lots and where damage could occur to property due to flooding, unless controllers with flow sensor capabilities are specified that can automatically shut off individual control valves when excess flow is detected.

e. Pressure compensating screens/devices shall be specified on all spray heads to reduce radius as needed to prevent overthrow onto hardscape and/or to control high pressure misting.

f. All irrigation systems shall be designed to avoid runoff onto hardscape from low head drainage, overspray and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures.

g. Rotor type heads shall be set back a minimum of 4 feet from hardscape.

h. The use of drip, microirrigation or pressure compensating bubblers or other systems with efficiencies of 90 percent or greater is required for all shrubs and trees. Small, narrow (less than 8 feet), irregularly shaped or sloping areas shall be irrigated with drip, microspray or PC (pressure-compensating) bubbler heads.

i. Trees in turf areas shall be on a separate station to provide proper deep watering.

j. Street median irrigation

   i. No overhead sprinkler irrigation system shall be installed in median strips or in islands.

   ii. Median islands or strips shall be designed with either a drip emitter to each plant or subsurface irrigation. Bubblers used for trees must be fixed-flow pressure compensating type. Adjustable bubblers are prohibited

k. Meter sizing for landscape purposes shall be 33 gpm per planted acre. Maximum design meter flow rates are: 3/4" = 23 gpm, 1" = 37 gpm, 1-1/2" = 80 gpm, 2" = 120 gpm

l. Large projects located outside Improvement District No. 1 of the Coachella Valley Water District shall connect to or provide future connection to recycled water if such water is available. Large projects located inside Improvement District No. 1 may be

required to connect to canal irrigation water or recycled water if such water is available. **(See attached boundary map.)**

4. Drip Irrigation System Criteria

   a. The drip system must be sized for mature-size plants.

   b. The irrigation system should complete all irrigation cycles during peak use in about 12 hours. Normally, each irrigation controller should not have more than four drip stations that operate simultaneously.

   c. Field installed below ground pipe connections shall be threaded PVC or glued PVC. Surface laid hose and tubing is prohibited. Polyethylene tubing is allowed only in subsurface installations. Drip emitter installation shall be directly into polyethylene tubing on a ¼ inch thick-walled riser. Multi-port outlet devices and multi-port distribution is prohibited.

   d. Proportion gallons per day per plant according to plant size. The following sizing chart is for peak water use. The low to high end of the range is according to the relative water requirements of the plants. The low end is for desert natives and the high end is for medium water use type plants.

Size of Plant	Gallons Per Day
Large trees (over 30-foot diameter)	58+ to 97+
Medium trees (about 18-foot diameter)	21 to 35
Small trees/large shrubs (9-foot diameter)	6 to 10
Medium shrubs (3.5-foot diameter)	.8 to 1.3
Small shrubs/groundcover	.5 or less

   e. Plants with widely differing water requirements shall be valved separately. As an example, separate trees from small shrubs and cactus from other shrubs. Multiple emitter point sources of water for large shrubs and trees must provide continuous bands of moisture from the root ball out to the mature drip line plus 20 percent of the plant diameter. See Appendix C for more information on emitter spacing and wetted area.

   f. Most plants require 50 percent or more of the soil volume within the drip line to be wetted by the irrigation system. See Appendix C for more information. For additional information on plant watering and plant relative water needs, see the plant list section of the "Lush and Efficient, Desert Friendly Landscaping in the Coachella Valley" or a list provided by the local agency.

5. Recycled Water Specifications

   a. When a site has recycled water available or is in an area that will have recycled water available as irrigation water, the irrigation system shall be installed using the industry standard purple colored or marked "Recycled Water Do Not Drink" on pipes, valves and sprinkler heads.

   b. The backup groundwater supply (well water or domestic water) shall be metered. Backup supply water is only for emergencies when recycled water is not available.

   c. Recycled water users must comply with all county, state and federal health regulations. Cross connection control shall require a 6-inch air gap system or a reduced pressure backflow device. All retrofitted systems shall be dye tested before being put into service.

   d. Where available, recycled water shall be used as a source for decorative water features.

   e. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.

   f. A Recycled Water Checklist (Appendix G) shall be submitted to the District upon submittal of the first plan check of the landscape design plan and the irrigation design plan.

6. Irrigation Water (Nonpotable) Specifications

   a. When a site is using nonpotable irrigation water that is not recycled water (from an on-site well or canal water) all hose bibs shall be loose key type and quick coupler valves shall be of locking type with nonpotable markings to prevent possible accidental drinking of this water.

   b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.

7. Groundwater Water Specifications

   a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these criteria.

8. Golf Course Criteria

   a. For all new golf courses and additions or renovations to existing golf courses, the area of irrigated turf used for tees, fairways, greens and practice areas shall be limited. The total turf area of the golf course shall be limited to a maximum of four (4) irrigated acres average per golf hole. Practice areas such as driving ranges and short game areas shall not exceed ten (10) acres of turf. The golf course design shall reflect the natural topography and drainage

ways of the site, minimize the clearing of vegetation and be flexible and water efficient in design.

b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these criteria.

00.00.040 Other Provisions

A. Landscape Audit, Irrigation Survey, and Irrigation Water Use Analysis for New Construction and Rehabilitated Landscapes

1. This section shall apply to new construction and rehabilitated landscape projects installed after January 1, 2010 as described in Section 0.00.030.

2. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

3. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but not be limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;

4. The District will administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the Maximum Applied Water Allowance (MAWA).

5. The owner of the landscaped area shall bear the cost of the audit.

B. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis for Existing Landscapes

1. This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size.

2. The District will administer programs that may include, but not be limited to, irrigation water analysis, irrigation surveys and irrigation audits that verify landscape water use does not exceed the Maximum Applied Water Allowance (MAWA) for existing landscapes. The Maximum Applied Water Allowance (MAWA) for existing landscapes shall be calculated as: MAWA = (.70) (ETo) (LA) (.62/748) unless landscape plans were submitted and approved under a more water conserving ordinance.

C. Water Waste Prevention

1. Water Waste Prevention. Water waste resulting from inefficient landscape irrigation including run-off, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification. Penalties for violation of these prohibitions are established in Section 0.00.070.

2. Water service to customers who cause water waste may have their service discontinued.

3. Customers who appear to be exceeding the Maximum Applied Water Allowance (MAWA) may be interviewed by the District Water Management Department to verify customer water usage to ensure compliance.

D. Soil Management Report

1. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant or designee as follows:

   a. Submit soil samples to a laboratory for analysis and recommendation.

   b. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

   c. The soil analysis may include:

      i. Determination of soil texture, indicating the available water holding capacity.

      ii. An approximate soil infiltration rate (either) measured or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.

      iii. Measure of pH, total soluble salts and percent organic matter.

   d. The project applicant or designee shall comply with one of the following:

      i. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or

      ii. If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

   e. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and the irrigation plans to make any necessary adjustments to the design plans.

   f. The project applicant or designee shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.

E. Developer-Provided Documentation

1. The developer/applicant/designee shall provide an approved copy of the Landscape Documentation Package and the following information for the homeowner or irrigation system operator. The package/information shall include a set of drawings, a recommended monthly irrigation schedule, and a recommended irrigation system maintenance schedule as described in Section 0.00.040G.

2. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water to maintain plant health. Irrigation schedules shall meet the following criteria:

    a. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas. The irrigation schedule shall:

        i. Include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station.

        ii. Provide the amount of applied water (in hundred cubic feet) recommended on a monthly and annual basis.

        iii. Whenever possible, incorporate the use of evapotranspiration data, such as those from the California Irrigation Management Information System (CIMIS) weather stations, to apply the appropriate levels of water for different climates.

        iv. Whenever possible, be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature. Run times and other water efficient requirements may be imposed by the CVWD Board of Directors from time to time.

G. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include but not be limited to checking, adjusting, cleaning and repairing equipment; resetting the automatic controller, aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; and weeding in all landscaped areas.

2. Repair of irrigation equipment shall be done with the originally specified materials or their approved equal.

3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for the overall landscape maintenance.

H. Certificate of Completion

1. The Certificate of Completion (Appendix E) shall include the following:
   a. Submittal and Approval Dates of the Landscape Documentation Package and Submittal Date of the Water Efficient Landscape Worksheet
   b. Project Name
   c. Project Address and Location
   d. Applicant Name, Telephone and Mailing Address
   e. Property Owners Name, Telephone, and Mailing Address
2. Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.
3. Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
4. Landscape and irrigation maintenance schedule.
5. Irrigation audit report.
6. Soil analysis report and documentation verifying implementation of soil report recommendations.
7. The project applicant shall:
   a. Submit the signed Certificate of Completion to both the local agency and the District for review and approval.
   b. Ensure that copies of the Certificate of Completion with all approvals are submitted to the local agency, the District, and property owner or his or her designee.
8. The District and the local agency shall:
   a. Receive the signed Certificate of Completion from the project applicant.
   b. Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.

I. Stormwater Management

1. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.
2. Project applicants shall refer to the District, the local agency, and/or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.

3. Rain gardens and other landscape features that increase rain water capture and infiltration are recommended.

J. Public Education

1. Public education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.

2. The District and the local agency shall provide information to residents regarding the design, installation, management and maintenance of water efficient landscapes.

0.00.050 Review and Program Monitoring Fees

A. Review and Program Monitoring fees are deemed necessary to review Landscape Documentation Packages and monitor landscape irrigation audits and shall be imposed on the subject applicant, property owner or designee.

B. A Landscape Documentation Package review fee will be due at the time of initial project application submission to the District.

C. The Board of Directors, by resolution, shall establish the amount of the above fees in accordance with applicable law.

0.00.060 Appeals

A. Appeal to General Manager-Chief Engineer. An applicant, property owner or designee of any applicable project may appeal decisions made by the Water Management Department or Service Director other than imposition of penalties (see Sections 0.00.070 – 0.00.090 regarding imposition of penalties) to the General Manager-Chief Engineer, in writing, within fifteen (15) days of notification of decision. The General Manager-Chief Engineer's decision shall become final on the fifteenth (15^{th}) day following service of written notification of said decision unless a timely appeal is filed pursuant to 0.00.060 B.

B. Appeal to Board of Directors. An applicant, property owner or designee of any applicable project may appeal decisions made by the General Manager-Chief Engineer pursuant to Section 0.00.060 A. to the Board of Directors. Said appeal must be written and submitted to the Secretary of the Board of Directors within fifteen (15) days of the date of notification of the General Manager-Chief Engineer's decision. The Board of Directors' decision shall be final upon its adoption.

0.00.070 Penalties

A. Violation of any part of Ordinance No. 1302.5 may result in any or all of the following penalties as may be imposed by the District or any other local agency with jurisdiction to take enforcement actions. The following penalties apply when enforcement action is taken by the District:

1. Monetary. See Appendix F for schedule of monetary penalties.

2. Termination of Service.

B. Notice. The District shall issue a written notice of imposition of penalty. The notice shall set forth penalty imposed and the reason for imposition of it. The notice shall be served on the customer by registered or certified mail and shall advise that the customer may request review of the imposition of penalty by filing a written request for a hearing pursuant to the provision of Section 0.00.080.

0.00.080 Hearing Regarding Penalties

A. Request for Hearing. Customers who have received notice of imposition of penalty may make a written request for a hearing. The District must receive the request for hearing no later than fifteen (15) days from the date of the notice of imposition of penalty. The request for hearing shall set forth, in detail, all facts supporting the request. Upon District's receipt of a timely request for a hearing, imposition of penalty shall be stayed until the Statement of Decision after hearing becomes final, or, if the Statement of Decision is timely appealed, the Board of Directors' order on appeal is adopted.

B. Notice of Hearing. Within ten (10) days of the District's receipt of the request for hearing, the District shall provide written notice to the customer of the date, time and place of the hearing. The hearing date shall be within thirty (30) days of the mailing of the notice of hearing, unless the parties agree, in writing, to a later date.

C. Hearing. The General Manager-Chief Engineer, or his designee, shall act as the Hearing Officer. At the hearing, the customer shall have an opportunity to respond to the allegations set forth in the notice of imposition of penalty by producing written and/or oral evidence.

D. Statement of Decision. Within ten (10) days following the hearing, the Hearing Officer shall prepare a written Statement of Decision, which shall set forth the facts upon which the decision is based. The Statement of Decision shall be served by personal delivery or registered or certified mail on the customer. The Statement of Decision shall become final on the sixteenth (16^{th}) day after service on the customer unless a request for appeal is timely filed with the Board of Directors pursuant to Section 0.00.090.

0.00.090 Appeal of Penalties

A. Request for Appeal. A customer may appeal a Statement of Decision by filing a written request for appeal with the Board of Directors before the date the Statement of Decision becomes final, i.e., no later than the fifteenth (15^{th}) day following service of the Statement of Decision on the customer. The request for appeal shall set forth, in detail, all the issues in dispute and all facts supporting the request.

B. Notice of Appeal Hearing. No later than thirty (30) days after receipt of the request for appeal, the Board of Directors shall set the matter for a hearing. Written notice of said hearing of appeal shall be served on the appellant by personal delivery or registered or certified mail. The hearing date shall be a date within thirty (30) days of service of the notice of hearing of appeal, unless the parties agree, in writing, to a later date. If the Board of Directors does not hear the appeal within the required time due to acts or omissions of the appellant, the Statement of Decision shall become final on the thirty-first (31^{st}) day after service of notice of hearing of appeal on the customer.

C. Determination and Order on Appeal. After the hearing of appeal, the Board of Directors shall issue an order affirming, modifying or reversing the General Manager-Chief Engineer's decision. The Board of Directors shall set forth its Determination and Order, in writing, and shall serve the Determination and Order to the customer by personal delivery or registered or certified mail within thirty (30) days following the hearing. The Determination and Order of the Board of Directors shall be final upon its adoption.

APPENDIX A

LANDSCAPE DOCUMENTATION PACKAGE CHECKLIST

Project Site: _____ Tract or Parcel Number: _____

Project Assessor's Parcel Number (APN): _____

Project Location: _____

Landscape Architect/Irrigation Designer/Contractor and Name and Contact Information: _____

Included in this Landscape Documentation Package are: (Check to indicate completion)

____ 1. Water Efficient Landscape Worksheet (Appendix B)
WATER BUDGET CALCULATIONS (Appendix D)

____ 2. Maximum Applied Water Allowance (MAWA):

Conventional Landscape: _____ 100 cubic feet/year
+ Recreational Turf grass Landscape: _____ 100 cubic feet/year (if applicable)
Maximum Applied Water Allowance: _____ 100 cubic feet/year

____ 3. Estimated Total Water Use by Hydrozone:
Turf grass Hydrozones: _____ 100 cubic feet/year
Recreational Turf grass Hydrozones: _____ 100 cubic feet/year
Low Plant Hydrozones: _____ 100 cubic feet/year
Medium Plant Hydrozones: _____ 100 cubic feet/year
High Plant Hydrozones: _____ 100 cubic feet/year
Water Features: _____ 100 cubic feet/year
Other _____: _____ 100 cubic feet/year
Estimated Total Water Use: _____ 100 cubic feet/year

____ 4. ETWU < MAWA
PLAN SETS

____ 5. Landscape Design Plan

____ 6. Irrigation Design Plan

____ 7. Grading Design Plan

____ 8. Soil Management Report

I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Date: _____ Applicant: _____

APPENDIX B

SAMPLE WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and is a required element of the Landscape Documentation Package.

PROJECT INFORMATION

Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each irrigation point of connection. Use as many tables as necessary to provide the square footage of landscape area per valve.

Irrigation Point of Connection (P.O.C.) No. _____					
Controller No.	**Valve Circuit No.**	**Plant Types(s)***	**Irrigation Method****	**Area (Sq. Ft.)**	**% of Landscape Area**
Total					**100%**

***Plant Type**
CST = Cool Season Turf
WST = Warm Season Turf
HW = High Water Use Plants
MW = Moderate Water Use Plants
LW = Low Water Use Plants

****Irrigation Method**
MS = Microspray
S = Spray
R = Rotor
B = Bubbler
D = Drip
O = Other

APPENDIX C
ET PROFILE AND PLANT FACTORS

Monthly Eto (inches)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Inches	Total Feet
Zone 2	1.77	2.94	4.12	5.89	7.06	8.24	8.24	6.48	5.89	4.12	2.35	1.77	58.87	4.91
Zone 3	1.93	3.21	4.50	6.42	7.71	8.99	8.99	7.06	6.42	4.50	2.57	1.93	64.22	5.35
Zone 4	2.29	3.82	5.35	7.65	9.17	10.70	10.70	8.41	7.65	5.35	3.06	2.29	76.46	6.37
Zone 5	2.50	4.17	5.83	8.33	10.00	11.67	11.67	9.17	8.33	5.83	3.33	2.50	83.34	6.94
Percent Annual ETo	0.03	0.05	0.07	0.10	0.12	0.14	0.14	0.11	0.10	0.07	0.04	0.03		

Zone #2 = ALL coves, upper and lower from Highway 111 South.

Zone #3 = Moderate winds, minimum monthly shadows, some blowing dust and sand, upper valley predominant wind from northwest.

Zone #4 = Moderate winds, minimum monthly shadows, some blowing dust and sand lower valley has lower elevation and more summer southwest wind.

Zone #5 = Frequent strong northwest winds, heavy blowing dust and sand, typical of I-10 corridor.

Maximum Applied Water Allowance (CCF) = ETo (inches) × 0.45× Area (Square feet) × 0.62 ÷ 748

ET Adjustment Factor = 0.45
0.62= gallons per square foot per inch deep
CCF= 100 cubic feet = 1 billing unit= 748 gallons

Target Irrigation Efficiency
0.80= Turf Rotor
0.75= Sprayheads
0.90= Drip/Micro/PC Bubblers

$$\text{Estimated Total Water Use (CCF)} = \frac{\text{ETo (Inches)} \times \textit{Plant Factor} \times \textit{Area (Square Feet)} \times 0.62 \div 748}{\text{Irrigation System Efficiency}}$$

$$\text{Emitters per Plant Estimate} = \frac{\text{Area of Plant (square feet)} \times \textit{Percent of Area to be Wet}}{\text{Square Feet Wet Per Emitter}}$$

Soil Type	Inches Water Holding Capacity per Inch of Depth	Description
Very Coarse Sand	0.05	Typical of high on an alluvial fan
Blow Sand	0.07	Typical of mid valley ridge area
Fine Sand	0.10	Typical of low alluvial fans from Rancho Mirage to Indian Wells
Very Fine Silty Sand	0.15	Typical of lowest alluvial fans from La Quinta, Indio, Coachella
Silt Loam	0.17	Typical of lower valley agricultural areas located below sea level

Emitter Wetted Area Square Feet Each	Emitter Spacing
0.75 to 1.75	10"
1.75 to 3	18"
3 to 5	3'
5 to 10	4'
10 to 28	4.5'

APPENDIX C
ET PROFILE AND PLANT FACTORS

Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Cool Turf 100% **	1.00	1.00	NR	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
Warm Turf 100%**	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
Cool Turf 80%*	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
Warm Turf 60%*	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
Combined TurfSav*	0.80	0.80	0.80	0.60	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
Tree/Shrub/GC L*	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Tree/Shrub/GC L**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Tree/Shrub/GC M*	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Tree/Shrub/GC M**	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Tree/Shrub/GC H*	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Tree/Shrub/GC H**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Open Water Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley
* = Normal irrigation level to maintain established planting
** = Normal irrigation level during plant establishment
*** = Approximate evaporation. Reference, WULCOLS IV

GC = Groundcover
L = Low water use, Kc. 0.1 to 0.3
M = Moderate water use, Kc. 0.4 to 0.6
H = High water use, Kc. 0.7 to 0.9
NR = Not Recommended

APPENDIX D
SAMPLE CALCULATION/ESTIMATED TOTAL WATER USE (by Hydrozone)

Using the following formula from Appendix C:

ETWU = (ETo) x (PF) x (LA) x (.62)] / (748) / (IE)
ETWU = Estimated Water Use (hundred cubic feet)
ETo = Reference Evapotranspiration (inches) [for period of estimate]
PF = Plant Factor (Kc)
LA = Landscaped Area (in square feet)
.62 = Conversion Factor (to gallons per square foot)
748 = Conversion Factor (to hundred cubic feet)
IE = Irrigation System Efficiency

Project Site Example: Total landscaped area 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 2 (64.0" Annual ETo).

- 12,000 square feet of turf grass overseeded with rye grass in winter, irrigated with low angle rotor sprinklers.
- 32,700 square feet of "low" desert native plantings on drip irrigation.
- 15,300 square feet of "moderate" water using plantings on drip irrigation.

See Appendix C for formula factors. ETo is totaled for season. Turf grass plant factors are the average for the season and tree/shrub/groundcover plant factors are considered constant annually.

Plant Factors

Turf Grass	Low Native Plants	Moderate Shrubs
0.70	0.20	0.50

ETWU = [(ETo) x (PF) x (LA) x (.62) / (748)] / (IE) = CCF

Overseeded Turf Grass: Season = 64.0 x 0.7 x 12,000 x 0.62 ÷ 748 ÷0.80 = 557 CCF
Seasonal Turf ETWU = 557 CCF

"Low" Native Plants: Annual = 64.0 x 0.2 x 32,700 x 0.62 ÷ 748 ÷ 0.90 = 385 CCF
"Low" Native ETWU = 385 CCF

"Moderate" Shrubs and Ground Cover: Annual = 64.0 x 0.5 x 15,300 x 0.62 ÷ 748 ÷0.90 = 451 CCF

"Moderate" ETWU = 451 CCF
Project Total ETWU = 1,393CCF

APPENDIX D

SAMPLE CALCULATION

Maximum Applied Water Allowance (MAWA)

Using the following formula:

MAWA = [(ETo) x (0.45) x (LA) x (0.62)] / (748)
MAWA = Maximum Applied Water Allowance (CCF or hundred cubic feet)
ETo = Reference Evapotranspiration (inches per year)
0.45 = ET adjustment factor
LA = Landscaped Area (square feet)
0.62 = Conversion Factor (to gallons per square foot)
748 = Conversion Factor (to hundred cubic feet)

Using the project for the Estimated Total Water Use example:

Landscaped area of 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (64.0" Annual ETo).

MAWA = 64.0 (ETo) x (0.45) x (LA) x (0.62) ÷ (748)
= [64.0(0.45) (60,000) (0.62)] / (748)
MAWA = 1,432 CCF

ETWU total of 1,393CCF is < the MAWA of 1,432 CCF

APPENDIX E

SAMPLE CERTIFICATE OF COMPLETION

Project Name:_____

Parcel Map or Tract No.:_____ APN:_____

Project Location:_____

Maximum Applied Water Allowance (MAWA):_____ (in hundred cubic feet)

Estimated Annual Total Applied Water Use:_____ (in hundred cubic feet)

Preliminary project documentation submitted (initials indicate submittal)

_____1. Grading design plan

_____2. Landscape design plan

_____3. Irrigation design plan

_____4. Irrigation schedules

Post Installation inspection (initials indicate completion)

_____1. Plants installed as specified

_____2. Irrigation System installed as designed

Comments:_____

_____

_____

A copy of this certification has been provided to the owner/developer, the local agency and to the District. I certify the work has been completed in accordance with District Ordinance 1302.5, Landscape and Irrigation System Design Criteria.

_____

Landscape Architect/Designee Signature License No. Date

1. Date the Landscape Documentation Package was submitted to the Local Agency: _____

2. Date the Landscape Documentation Package was approved by the Local Agency: _____

3. Date a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the District: _____

APPENDIX F

SCHEDULE OF MONETARY PENALTIES

1. $250 upon receipt of first written Notice of Non-compliance.
2. An additional $250 (for a total of $500) upon receipt of the second Notice of Non-compliance issued thirty (30) days after the receipt of the first Notice of Non-compliance.

APPENDIX G

Recycled Water Checklist

1. Obtain coverage under the general waste discharge requirements for discharge of recycled water for golf course and landscape irrigation Order No. 97-700 or equivalent version of this permit from the California Regional Water Quality Control Board of the Colorado River Basin Region (Regional Board) by submitting a Notice of Intent to the Regional Board and paying application/annual fees.

2. Enter into an agreement with CVWD for receiving nonpotable water for golf course and landscape irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.

3. Landscape and Irrigation system plans must meet regulatory requirements of Order 97-700 or equivalent version of this permit, the State Board's Recycled Water Policy, and California Department of Public Health (CDPH) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, Title 17 and Title 22 Code of Regulations. These requirements include but are not limited to the following:

    a. An air-gap separation, a vertically measured distance between supply pipe and receiving vessel must be present and meet the required distance for the size of the supply pipe.

    b. The appropriate type of backflow protection is to be installed for auxiliary water supplies and recycled water.

    c. The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by CDPH.

    d. The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by CDPH.

    e. Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.

    f. Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.

g. Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include "RECYCLED WATER—DO NOT DRINK" and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.

h. The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.

i. All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.

j. Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.

4. Prior to construction, landscape and irrigation system plans must be submitted for approval to the following agencies (please allow for a 30 day comment period):
   a. Regional Board Water Quality Control Board,
   b. California Department of Public Health, and
   c. CVWD.

5. Upon approval from the Regional Board and CDPH, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons though a method approved by the Regional Board's Executive Officer and CDPH at least 30 days prior to use of recycled water.

6. A Use Site Supervisor must be designated and his or her name and contact information must be provided in writing to CVWD and the Regional Board 30 days prior to discharge of recycled water. This person will be available to be contacted and receive periodic education and training on the uses and restrictions of recycled water.

7. A cross-connection control test will be performed on the irrigation and domestic systems prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, CDPH, and the Regional Board within 30 days of test completion.

8. "As-Built" plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to CDPH, as per the CDPH requested time frame.

APPENDIX H

Prescriptive Compliance Option

(a) This appendix contains prescriptive requirements which may be used as a compliance option to Ordinance 1302.5, Landscape and Irrigation Design Criteria.
(b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:
    (1) Submit a Landscape Documentation Package which includes the following elements:
        i. Date
        ii. Project applicant
        iii. Assessor's Parcel Number (project address if available)
        iv. Total landscape area (square feet), including a breakdown of turf and plant material
        v. Project type (e.g., new, rehabilitated, single-family residential, home-owner installed)
        vi. Water supply type (e.g., potable, recycled, well)
        vii. Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option of Ordinance 1302.5".
    (2) Plant material shall comply with all of the following;
        i. Install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles.
        ii. A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
    (3) Turf shall comply with all of the following:
        i. Turf shall not exceed 25% of the landscape areas;
        ii. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
        iii. Turf is prohibited in areas less than 10 feet wide.
    (4) Irrigation systems shall comply with the following:
        i. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.
        ii. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

iii. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

iv. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

v. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter

vi. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

(5) Prior to final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

Ordinance to be effective on July 28, 2020.

PASSED AND ADOPTED by the Board of Directors of the Coachella Valley Water District, County of Riverside, State of California, this 28th day of July 2020 by the following roll call vote:

AYES: Powell, Nelson, O'Dowd, Estrada

NOES: None

ABSENT: Bianco

ATTEST:

Sylvia Bermudez, CMC Clerk of the Board
Coachella Valley Water District

John P. Powell, President
Coachella Valley Water District

Attachment B. Legal Authority

3.30.010 Water shortage contingency plan.

Effective immediately upon adoption of the ordinance codified in this chapter, all water use restrictions, enforcement, and fines and shortage level assessments and declarations will be as outlined in the 2021 Water Shortage Contingency Plan. (Ord. 1422.6 § 5, 2021)

The Coachella Valley Water District Code is current through Ordinance 1443, and legislation passed through January 27, 2026.

Disclaimer: The clerk of the board's office has the official version of the Coachella Valley Water District Code. Users should contact the clerk of the board's office for ordinances passed subsequent to the ordinance cited here.

District Website: www.cvwd.org
District Telephone: (760) 398-2651

Hosted by General Code.

Coachella Water Authority



Coachella Water Authority
Water Shortage Contingency Plan

Final Draft

prepared on behalf of

Coachella Water Authority
53462 Enterprise Way
Coachella, California 92236

prepared by

Rincon Consultants, Inc.
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May 11, 2026

RINCON CONSULTANTS

COACHELLA WATER AUTHORITY & SANITARY DISTRICT
SERVICE. VALUE. QUALITY.

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Attachment A: City of Coachella Municipal Code Section 13.03
Attachment B: Coachella Valley Association of Governments Landscape Ordinance

1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the Coachella Water Authority (CWA) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the City Council, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes the CWA's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and City Council are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant CWA the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

CWA is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook (DWR 2026).

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for recharge include:

- Colorado River water that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- State Water Project (SWP) water that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct to for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

Drought conditions are not expected to affect CVWD's Colorado River water supply due to the agency's high priority allocation. Colorado River water is not a direct source of urban water supply; it is used for groundwater replenishment and non-potable irrigation uses. If a reduction in Colorado River water supply occurred, CVWD would initially reduce deliveries to groundwater replenishment projects. Subsequent reductions in delivery would be applied by the CVWD Board of Directors as provided in CVWD's Canal Water Shortage Contingency Plan, Chapter 3.10, Article XII of CVWD's administrative code (CVWD 2026).

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for CWA is presented in Section 5.7 of CWA's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how CWA intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible.

3 Annual Water Supply and Demand Assessment Procedures

CWA is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and present an assessment of the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that CWA will use to prepare the Annual Assessment. The procedures defined in this section will allow CWA to follow a consistent annual procedure for making the determination of whether to activate the WSCP.

3.1 Decision Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	CWA staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, individual agencies may elect to activate their WSCP at different shortage levels than other participating agencies.
April	CWA staff will make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, CWA management will present the recommendation to the governing board for consideration. If the governing board decides to implement the WSCP, it will provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	CWA staff prepares the Annual Assessment and submits to DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

CWA will rely on locally applicable criteria for each annual assessment. These criteria will include the findings of the annual reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. Findings from the annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated.

3.2.2 Water Supply

CWA's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

CWA will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4 of each agency's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

CWA will describe the anticipated use of water supplies for the coming year, with the anticipation that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

CWA will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. CWA will verify that its system of wells, pipelines, pump stations, and storage tanks have adequate capacity to deliver the anticipated demands. CWA will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

CWA will describe any specific locally applicable factors that could influence or disrupt supplies. CWA will also describe unique local considerations that are considered as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

The RUWMP participating agencies have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are identified in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Narrative Summary of Shortage Response Actions
1	Up to 10%	Normal water supplies	Mandatory prohibitions defined by the state, ongoing rebate programs
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to CWA. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. CWA may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by CWA at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, CWA continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. CVWD and DWA collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, the RUWMP participating agencies continue to implement water conservation measures and increase use of recycled water usage to reduce groundwater demand. CWA's demand management programs are described in CWA's chapter of the RUWMP.

In their WSCP, agencies have the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume of Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Other Actions	Volume	Medium	In areas where recycled water supply is available, customers could be mandated to use recycled water and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency to tailor its response to the unique characteristics of its service area. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- The benefits of tiered rates in allowing customers to pay less for their basic efficient use and more for excessive use.
- A balanced program should include incentives (such as expanded rebates for turfgrass removal) as well as penalties (such as drought rates).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, CWA may implement some or all of the actions as needed, depending on actual conditions. As described in Section 5.9 of CWA's chapter of the RUWMP, CWA implements demand management measures (DMMs) to increase water use efficiency. The RUWMP includes description of water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation.

CWA prohibits wasting water as cited in the City of Coachella Municipal Code Chapter 13.03.044(Attachment A) and adopted the Coachella Valley Association of Governments (CVAG) Water Efficient Landscape Ordinance No. 1302.5 (Attachment B).

Table 4. Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	1.1	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	No
	1.2	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	No
	1.3	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	No
	1.4	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	No
	1.5	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	No
	1.6	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	No
	1.7	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	1.8	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	1.9	Agency shall discourage overseeding.	Volume	Low	No
	1.10	Agency shall provide rebates for landscape efficiency.	Volume	High	No
	1.11	Agency shall offer water use surveys/audits.	Volume	Medium	No
	1.12	Agency shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	2.1	Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	2.2	Restaurants can serve water only on request.	Volume	Low	Yes
	2.3	Agency shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	2.4	Agency shall actively discourage overseeding.	Volume	Medium	No
	2.5	Agency shall reduce outdoor water budget by 10%	Volume	Medium	Yes
	2.6	Agency shall expand public information campaign.	Volume	Medium	No
	2.7	Agency shall increase water waste patrols.	Volume	Medium	Yes
	2.8	Agency shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	3.1	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	3.2	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	3.3	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	3.4	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	3.5	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	3.6	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	3.7	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	3.8	Agency shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new State laws regarding limitations on such enforcement.	Volume	Low	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
	3.9	Agency shall strengthen customer billing messages with use comparisons.	Volume	Medium	No
	3.10	Agency shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	3.11	Agency shall expand rebate programs.	Volume	Medium	No
4	4.1	Turfgrass landscapes may not be watered except where subterranean or non-potable water systems are used.	Volume	High	Yes
	4.2	Agency shall implement or modify drought rate surcharge.	Volume	High	Yes
	4.3	Agency shall reduce outdoor water budget by up to 25%.	Volume	High	Yes
	4.4	Agency shall expand public information campaign.	Volume	Medium	No
5	5.1	Watering turfgrass is prohibited.	Volume	High	Yes
	5.2	The use of misting systems is prohibited.	Volume	Medium	Yes
	5.3	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	5.4	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	5.5	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	5.6	Agency shall reduce outdoor water budget by up to 50%.	Volume	High	Yes
	5.7	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes

5.3 Operational Changes

CWA has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4. CWA may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

CWA has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in the agency's Emergency Response Plan (ERP). CWA's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available.

CWA's ERP outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

Five of the RUWMP participating agencies collaborate on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because the agencies use local groundwater to meet urban demands, the agencies could continue to meet short term urban demands with groundwater production. The agencies have installed backup generators at key water production facilities to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA. CVWD has plans to make emergency repairs to the Coachella Canal. CVWD staff receives regular Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and drills are conducted routinely. CVWD remotely monitors the status of most key facilities at CVWD headquarters, which enables it to detect areas affected by disasters.

RUWMP participating agencies also participate in ICS training and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. It could also lead to increased groundwater pumping by non-urban users who normally use imported canal water. CWA would implement levels of this WSCP as needed if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires the agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

CWA is a participant in the Riverside County Multi-Jurisdiction Local Hazard Mitigation Plan (MJLHMP) which was updated in 2025 (Riverside County 2023). Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies and actions to reduce the impacts of a seismic event. The RUWMP

participating agencies continue to include seismic risk assessment in their planning process for system improvements.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly. Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assume all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. CWA will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of CWA's service area. CWA will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

At all times	Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update message platform to reflect conditions, District response, and needed actions from public	Update campaign and messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update campaign and messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update campaign and messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce emergency status to key stakeholders and general public (e.g., News release, social media, etc.)
Standard coordination with MWD and regional partners	Include increased conservation messages on website and in standard outreach efforts; provide regular condition updates to stakeholders/media	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to stakeholders/media	Supplement Level 2 outreach with additional tactics as needed; provide regular updates to stakeholders/media on conditions	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to stakeholders/media on conditions
Board reports on public communication and water-use efficiency outreach activities at least annually.	Enhance promotion of ongoing WUE programs/tools; deploy targeted advertising	Conduct issue briefings with elected officials, other key civic and business leaders	Conduct specialized outreach to HOAs and local organizations	Suspend promotion of long-term WUE programs/tools to focus on imminent needs
	Initiate regular Board reports on campaign efforts	Increase promotion of ongoing WUE programs/tools	Promote available water assistance resources for vulnerable populations; specialized outreach to impacted industries	Continue enhanced coordination with neighbor agencies and local/state/federal policy makers as needed (e.g. daily or weekly briefings or email updates, etc.)

7 Compliance and Enforcement

This section describes how CWA will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6.

Table 6. Enforcement Actions

Water Shortage Level	First Violation	Second Violation (within 12 months)	Third Violation (within 12 months)	Subsequent Violations	Additional Information
1	Written warning	$15 administrative fee	$50 administrative fee	$100 administrative fee	
2	Written warning	$100 administrative fee	$150 administrative fee	$300 administrative fee	
3	Written warning	$150 administrative fee	$300 administrative fee	$500 administrative fee	
4 - 6	$300 administrative fee	$500 administrative fee	$500 administrative fee	$500 administrative fee	

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that CWA relies upon to implement the shortage response actions and the associated enforcement actions.

Chapter 13.03 of the Coachella Municipal Code provides the legal authority to enforce water service conditions, including the WSCP. A copy of the legal authority is included in Attachment A.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, CWA shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

CWA shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 7 contains a list of contacts for all cities or counties for which the RUWMP participating agencies provide service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Imperial County	Office of Emergency Services	X					
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of La Quinta	Emergency Management Division	X			X	X	
City of Indio	Emergency Services Coordinator	X	X		X		
City of Coachella	Emergency Services Coordinator	X	X		X		
City of Palm Desert	Emergency Services Coordinator	X					
City of Cathedral City	Emergency Manager	X		X			
City of Indian Wells	Emergency Services Coordinator	X					
City of Rancho Mirage	Emergency Services Coordinator	X					
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to CWA of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Financial Impacts and Mitigation Actions

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions
- Economic impacts associated with water-dependent businesses in the service area Potential mitigation measures include:
- Triggering of drought rate structures or surcharges

- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced water production)
- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge
- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative source of funding, such as state or federal grants or loans
- Other financial management mechanisms

CWA will monitor financial conditions during a water shortage and take appropriate actions as needed. CWA maintains financial reserves that can be used to continue operations during a period of reduced water sales. CWA has the ability to increase water rates or implement surcharges or penalties to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. CWA may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

10 Monitoring and Reporting

This section describes how CWA will monitor and report on implementation of the WSCP. CWA will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving their intended water use reduction purposes. CWA will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. CWA will gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies, as needed.

CWA will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and water connection point is also metered, and production records will be used to observe trends in water production. Levels in reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks.

CWA staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

For agencies that have budget-based rates, the consumption by customers will be compared to the water budgets to determine effectiveness of response actions. For agencies without defined water budgets for each customer, the consumption records will be aggregated by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

CWA will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If CWA determines that the shortage response actions are not effective in producing the desired results,

CWA will initiate a process to refine the WSCP. CWA will consider the addition of new shortage response actions, or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from agency staff, customers, industry experts, and the general public. The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while most pools and spas (recreational water features) use potable water for health and safety considerations. However, this distinction does not apply to the hot mineral spring pools and spas throughout the Desert Hot Springs area; while they are recreational, they also do not rely on potable water.

13 Plan Adoption, Submittal, and Availability

This 2025 WSCP was presented for adoption by the City Council public meeting on June 10, 2026. Notifications were sent to the cities and counties as described in CWA's 2025 UWMP. To comply with the notice to the public, the City published notices in the local newspaper at least two weeks in advance with 5 days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on June 10, 2026, by City Council Resolution included in the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at the City's office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within CWA's service area within 30 days of adoption.

Based on DWR's review of the WSCP, CWA will make any amendments in its adopted WSCP, as required and directed by DWR. If CWA revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Attachment A. City of Coachella Municipal Code Section 13.03

Chapter 13.03

WATER SERVICE SYSTEM

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Article I

General

13.03.010 Department created—Supervision.

A utilities department is created in the city and the supervision of such department shall be under the direction of the utilities general manager.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.011 Office of general manager created—Appointment, duties, compensation.

The office of utilities general manager is created, which office shall be appointed by the city manager. The utilities general manager shall be the administrative officer of the water authority and shall discharge such duties and receive such compensation as shall be provided by resolution or ordinance or by the city manager.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.012 Application for service required.

All applications for water must be made in writing on forms provided by the city and must be signed by the applicant.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.013 Liability for cost of changing connection.

Should the service connection installed pursuant to the request of an applicant be of the wrong size or installed at a wrong location, the cost of all charges required shall be paid by the applicant; provided, however, the provisions of this subsection shall not apply where there is no error in said application.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.014 Conditions of connection.

Every service connection made upon receipt of an application as provided above shall be subject to the following conditions:

A. The applicant shall pay the stipulated rates at the time and in the manner provided in this chapter.

B. The utilities department may change rates and temporarily discontinue the service at any time without notice to the consumer.

C. The utilities department and the city shall not be liable for any damage by water or otherwise resulting from defective plumbing, broken or faulty service or water mains, or resulting from any condition of the water itself, or any substance that may be mixed with or be in the water as delivered to any consumer.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.015 Deposits required—Amount.

Consumers guarantee deposits are required for water service pursuant to section 13.03.113.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.016 Deposits not interest-bearing.

No interest shall be payable at any time upon any deposit made by any consumer for service under the provisions of this chapter.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.017 Application of deposit.

Guarantee deposits shall be refunded after twelve (12) months of continuous, satisfactory payment history (i.e., no delinquencies). If an account is closed in fewer than twelve (12) months, or if an account is closed with any balance remaining on deposit, such balance shall be applied to the closing bill. Any balance in excess of ninety-nine cents ($0.99) of any deposit remaining after the closing bill for service has been settled will be returned promptly, provided nothing is owing to the utilities department by the depositor for water delivered to any former address. Further application of deposits shall be made as provided in section 13.03.113.B.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.018 Connection and meter installation charges.

A. The utilities department shall make charges as adopted by ordinance of the city council or authority for installation of and the perpetual maintenance of all water services, meters and appurtenances thereto, same to remain the property of the utilities department. Such charges, in addition to all other usual and regular charges of such utilities department, including charges for water main extensions and connections, must be paid before work will be performed.

B. Whenever an installation is required by an applicant that is not covered by the above schedule of charges, such work will be done with charges based upon the cost of such installation as required by an applicant, which will be established by ordinance of the city council or authority.

C. The schedule of charges adopted by the city council or authority will include meter boxes except where the basement is excavated to the curb line, in which case the applicant shall provide at his or her own expense an adequate vault and cover to house such meter and appurtenances in accordance with utilities department requirements.

D. If a meter and service installation exceeds fifty (50) feet in length or for any other valid reason it cannot be installed for the amount stated in the above schedule of charges due to the peculiarity of the proposed services, the water department reserves the right to make such installation on the basis of the costs of such installation as determined by the utilities department.

E. When services are installed for automatic fire sprinkler service, the applicant must install at his or her own expense a detector check valve of design and at a location approved by the utilities department.

F. When a meter and service are installed, and application is made for an increase in size of service and meter at the same location, a schedule of credits as adopted by ordinance of the city council or authority will be allowed for the meter removed on the above schedule of charges for installation.

G. Whenever services, meters, fire hydrants or other appurtenances are required to be moved or exchanged by an applicant for any reasons whatsoever, the charges for such removal shall be made on the basis of the cost of such removal as determined by the utilities department.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.019 Monthly charges.

Monthly charges shall be made for water and for fire hydrants, pursuant to ordinance duly adopted by the city council of

the city of Coachella, California or the authority for those rates within the city limits, outside the city limits and for the circumstances where each customer's water is measured through a meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.020 Reading of meters, billing of charges—When bills due.

For convenience in the reading of meters and the preparation of water bills, the utilities department is expressly authorized, and it shall be its duty, to divide the city into districts. These districts may, from time to time, be revised or changed as necessary or desirable, in order to equalize the work of reading meters and billing. The meters in each district so established shall be read on approximately the same day of each and every month, except when Saturdays, Sundays and legal holidays intervene. Water bills on such meter readings shall be prepared and mailed to the consumers in each district on approximately the same day of each or every other month, except when Saturdays, Sundays and legal holidays intervene. Fifteen (15) days shall be allowed from the date of mailing such bills for the payment thereof.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.021 Charge when property vacant.

In case a house becomes vacant the regular minimum rate shall be charged and collected from the owner thereof whether water is used or not, unless the utilities department is notified in writing of the fact that the property is unoccupied and the utilities department is requested to cut off the water service therefrom.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.022 Individual connections and meters required—Exceptions.

A. Two or more buildings under one ownership and on the same lot or parcel of land must be supplied by individual or separate service connections and meters except in the case of a court or in case of buildings located on the rear of an inside lot, one service and meter may be installed by the owner to cover more than one building.

B. The utilities department, however, reserves the right to limit the number of buildings or the area of the land under one ownership to be supplied by one service connection.

C. A service connection shall not be used to supply adjoining property of a different owner, or to supply property of the same owner across a street or alley.

D. When property provided with a service connection is subdivided, such service connection shall be considered as belonging to the lot or parcel of land which it directly enters.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.023 Combining readings of separate meters.

For the purpose of making charges, all meters supplying a consumer's premises will be considered separately, and the readings thereof will not be combined, except that where the water department shall, for operating necessity, install in place of one meter, two or more meters, then the readings of such two or more meters will be combined for the purpose of making charges; provided, however, that the minimum water rates shall be applied to each such meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.024 Resale, misuse of water.

Unless specially agreed upon the consumer shall not resell any of the water received by him from the utilities department to any other person, or for any other purpose or on other premises than specified in his application for service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.025 Curb cock required—Liability for damage.

Every service connection installed by the utilities department shall be equipped with a curb cock or wheel valve on the inlet side of the meter; such valve or curb cock being intended exclusively for the use of the utilities department in controlling the water supply through the service connection pipe. If the curb cock or wheel valve is damaged by consumer's use to an extent requiring replacement, such replacement shall be at the consumer's expense.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.026 Pressure conditions.

All applicants for service connections or water service shall be required to accept such conditions of pressure and service as are provided by the distributing system at the location of the proposed service connection, and to hold the utilities department harmless from all damage arising from low pressure or high pressure conditions or interruptions of service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.027 Work requiring changes in mains and connections.

Where persons, corporations or contractors making improvements, etc., requiring excavations in streets wherein water mains and service connections exist, requiring such water mains and service connections to be cut and refitted, lowered or raised, etc., said persons, corporations or contractors shall make written request to the utilities department, insuring the payment of all costs incurred by the utilities department in making the changes necessary or required to be made.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.028 Fire service connections.

A. When a fire service connection is installed the valve governing same will be closed and sealed and remain so until a written order is received from the owner of the premises to have water turned on. After water is turned on the utilities department shall not be held liable for damages of any kind whatsoever that may occur to the premises serviced by reason of the installation, maintenance, use, fluctuation of pressure, or interruption of supply.

B. In no case shall any connection be made with any sprinkler or fire service without written consent of the utilities department, and should it be found that any such unauthorized connection has been made, or that water has been used from a sprinkler or fire service for any other purpose than extinguishing a fire, the water service shall be shut off and not turned on again until a sum equivalent to the monthly minimum provided for at that time, for a similar sized regular installation, is paid covering the entire period during which the service has been installed. A standard meter of the equivalent size of the service pipe shall be installed by the utilities department at the owner's expense at rates provided in Section 13.03.018.

C. The utilities department reserves the right to install on each fire service connection a by-pass meter, such installation to be made at the expense of the owner of the property.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.029 Water to pass through meter.

A. All services not otherwise provided for in these rules and regulations shall be metered, and all city water used on any premises shall pass through a meter.

B. No by-pass or connection between the meter and the main shall be made, maintained or permitted except as may be installed by the utilities department for sprinkler or fire service. Water served to any premises, where there is or has been any

infringement of this section will be shut off at once, and will not be turned on again until full satisfactory settlement has been made with the utilities department for such infringement.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.030 Use of water from hydrants.

A. Persons wishing to take a supply of water from a fire hydrant must make application to the utilities department for such service. The utilities department will make the necessary connections and install a meter of required size.

B. When water is required for construction purposes of any type, upon making proper application a service connection will be made with a main or at a hydrant at the most accessible point to the construction work. When the connection is not sufficiently accessible and water must be taken to the work in a tank wagon or barrel, such supply shall be taken through the meter as installed. In no case will water be furnished for any purpose except through a meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.031 Unauthorized turning water on or off.

Turning on or off water at the curb or inlet side of the meter by other than authorized employees of the utilities department in any instance or for any purpose whatsoever is unlawful.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.032 Using water to test pipes and fixtures.

Whenever plumbers or other persons connecting service pipes to the property or outlet side of the meter may use the water for testing pipes and fixtures at an unoccupied building, they shall see that water is properly shut off before leaving same.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.033 Boiler connections.

A. It is unlawful for any person or persons to draw water from any city water supply pipe direct into any stationary steam boiler.

B. All boilers or other heaters supplied with city water shall be installed in compliance with the city's plumbing code and California state safety regulations.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.034 Charge for temporary connections.

A temporary service connection may be installed at the same charge as provided for a regular service connection.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.037 Temporary connections remote from property.

When water service is required by an owner of real property on which there now exists or is planned for immediate construction a dwelling, other structure or improvement requiring domestic water service and there is no water main adjacent to such property the utilities department may grant permission to said applicant to have a service connection and meter set at the nearest existing water main. The applicant must agree in writing to the following conditions, to pay all costs of installation and maintenance of a pipeline from the service connection and meter to his or her property and assume all responsibility, liability for, and the payment of all costs and damages growing out of the installation, operation or failure of such pipeline. Such connection and pipeline shall be installed an used as a temporary arrangement only; that no water shall be conveyed through such pipeline for the use of any residence or property other than the property for which it was originally intended; and that at such time as a regular permanent water main may be in-

stalled to serve the property under this agreement, and on written demand of the utilities department the applicant must bear his or her proportionate share of the costs of such main extension and at his or her expense shall install a regular domestic water service, and shall discontinue the use of such temporary service connections and pipeline.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.038 Special arrangements for short term temporary service.

For temporary service over a short period, special arrangements may be made to secure water supply as follows:

A. From an installed service connection not in use.

B. From an outlet at the inlet side of a meter on a service connection that is in use, provided the applicant shall first secure the owner's permission to make such connection, and shall agree to pay the cost of making the connection.

C. From house faucets, provided the applicant shall first have arranged with the consumer who pays for water used through the service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.039 Emergency shut-off required.

Consumers are instructed that in laying service pipe from the building to the meter, it is compulsory that a full way gate valve be placed in the line, inside the meter box, for use in shutting off the water in case of emergency.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.040 Meter reading period—Charge when meter defective—To whom bills mailed.

Under ordinary conditions continuous service meters shall be read monthly on approximately the same day of the month, provided, however, that the utilities department may, at its discretion, read the meter of any consumer on a bi-monthly schedule and a bill issued showing the period covered by the meter readings, the quantity of water used and the total charge for the service rendered. If the meter readings indicate that a large or unusual consumption has occurred, the readings will be checked before the bill is mailed. The utilities department's services will be available without charge in assisting in locating the probable causes of high consumption. When it is impossible to read the meter due to any obstructions, an average bill, or a series of average bills, will be rendered, and the accumulated over-read or under-read (if any) will be adjusted at the next actual reading date. If the meter fails to register, the charge for water will be based upon the average of the comparable period of the preceding year, taking into consideration the volume of business, weather conditions, and any other factors that may assist in determining an equitable charge. Unless the applicant for water service shall direct otherwise, all bills will be mailed to the premises where water service is furnished.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.041 Meter testing—Adjustment of bill.

A. When the accuracy of a water meter is in question, the utilities department shall upon the request of the consumer cause an official test to be made upon deposit by the consumer in an amount established by ordinance of the city council or authority.

B. If, upon examination of the meter to ascertain the accuracy of its operation, it shall be found to register over three percent more water than actually passes through it, another meter will be substituted therefor, and the fee charged for such test will be

refunded to the person making the application. An adjustment for a period of three months prior to the test will be made on the basis of the percentages the meter is in error.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.042 Shutting off water at consumer's request.

Upon application of the owner or occupant of a building or premises served by a water service connection to have the water shut off at the supply or inlet side of the meter, the department will shut the water off, and at the same time will record the reading of the meter.

13.03.043 Shutting off water for repairs, extensions and violations.

The department reserves the right to shut off the water supply from any premises at any time without notice, for the purpose of making repairs, extensions or other necessary purposes, or for any infraction of this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.044 Wasting water prohibited.

It is unlawful for any person to willfully or neglectfully waste water in any manner whatsoever, and any person having knowledge of any conditions whereby water is being wasted shall immediately notify the department of such fact.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.045 Water emergency regulations authorized.

The city manager or utilities general manager is hereby authorized to determine and declare that a water shortage emergency exists in any or all parts of the city, and upon such determination, to promulgate such regulations, rules and conditions relative to the time of using water, the purpose or purposes for which it may be used, and such other necessary limitations as will, in his or her opinion, relieve the water shortage in any such section or sections of the city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.046 Notice of declaration of emergency.

Upon such emergency declaration by the city manager or utilities general manager, it shall be his or her duty to have public notice given by publishing a notice giving the extent, terms and conditions respecting the use and consumption of water, at least once in the official newspaper of such city. Upon such declaration and publication of such notice due and proper notice shall be deemed to have been given each and every consumer supplied with water by the city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.047 Charges for turning water on and off.

A. A charge in an amount established by ordinance of the city council or authority will be made by the department for turning on the water supply, when requested by the consumer. No charge will be made for shutting off of the water supply, when requested by the consumer, incident to the closing of an account.

B. When service has been disconnected on account of nonpayment of water bills, or on account of failure to make the required cash guarantee deposit, or for any other violation of this chapter, a charge in an amount established by ordinance of the city council or authority shall be made by the department for turning on the water. The amount, plus the consumer's unpaid outstanding bills, must be paid by the consumer before service is renewed.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.048 Unauthorized turning on of water.

It is unlawful for the occupants of the premises to turn on the water, or cause it to be turned on, after it has been shut off at the curb or meter for any of the above reasons, and in addition to any other penalties prescribed by law, the water will be shut off again, the curb cock shall be sealed, the meter taken out, and a charge, in an amount established by ordinance of the city council or authority, will be made for the expenses incurred.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.049 Removal of non-registering meters.

When a non-registering meter is removed for failure to operate, a notice shall be left on the premises informing the consumer that the old meter supplying such premises has been removed for failure to operate, and that a new meter has been set in its place. This notice shall also inform the consumer that in the event the removed meter shall be found upon examination to have been injured and rendered ineffective because of the backing up of hot water or steam from the consumer's water heater or boiler, the expense of the damage caused thereby will be charged to such consumer.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.050 Admission of department employees.

Employees of the utilities department shall be admitted during all reasonable hours to the consumer's premises for the purpose of inspecting, testing, checking, changing, or reading water meters installed thereon, and shall upon request and proper identification be admitted for said purpose to any building or structure located upon such premises. All employees of the utilities department engaged in such work shall be furnished with identification badges or letters of authority from an official of the utilities department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.051 Employees not to make repairs or be paid money.

Employees of the utilities department are prohibited from making any sort of repairs to consumer's fixtures on the property side of the meter. No money shall be paid to any utilities department employee for any service unless he or she shall be an authorized collector for the city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.052 Turning water on at vacant premises—Valve required on property side of meter.

Whenever, in response to a turn-on order, a utilities department employee shall find the house or property vacant, he or she shall endeavor to ascertain if water is running on the inside of the building. If this is found to be the case the water will be left shut off at the meter and a notice shall be left at the house stating why the water was not turned on. All property owners shall be required, for their own convenience and safety, to have or provide a full way gate valve in the line inside the meter box on the property side of the meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.053 Using water without making application.

A. A person taking possession of premises and using water through an active service connection without having made application to the water department for water service shall be held liable for the water delivered from the date of the last recorded meter reading, and if the meter was, found inoperative the quantity of water consumed will be estimated.

B. If proper application for water service is not made promptly upon notification to do so by the water department, or if accumulated bills for service are not paid immediately, the service may be discontinued by the water department without further notice.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.054 Department not liable for damages inside meter.

The utilities department's jurisdiction and responsibility ends at the meter, and the water department will in no case be liable for damages occasioned by water running from open or faulty fixtures, or from broken or damaged pipes beyond the utilities department's meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.055 Miscellaneous services of department.

The utilities department is always willing to render any reasonable service in connection with the supply of water service to consumers upon application at the main office of the utilities department; provided, however, that reasonable charges may be made for any expense involved in rendering the service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.056 Mains declared property of department.

All water pipes which have been approved by the utilities department, constructed in streets, easements, alleys, or other public thoroughfares within the corporate limits of the city shall become the property of the utilities department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.057 Notice before working on street—Liability for damages.

All persons, who open, grade, regrade, fill, excavate, or otherwise work on a street, shall give at least three days' written notice to the utilities department for the removal, raising, lowering, or otherwise displacement of any water mains, pipes, fittings, meters, or other water system property that may interfere with such street work. Persons performing such work shall be liable for damage to city properties.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.058 Use of fire hydrants.

Fire hydrants are provided for the sole purpose of extinguishing fires, and are to be opened and used only by the fire department and utilities department, or such other persons as are specially authorized by the utilities department, upon such person or persons making application at the main office of the utilities department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.059 Manner of opening fire hydrants.

To insure safety of fire hydrants for fire protection, any person authorized by the utilities department to open fire hydrants will be required to use only an approved Spanner wrench, and to replace the caps on outlets when the same are not in use. Failure to meet this requirement will be sufficient cause to prohibit further use of the hydrants, and the refusal of subsequent authorization for use of the fire hydrants.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.060 Taking water away from fire hydrant.

It is unlawful for any person or persons to carry away any water from any fire hydrant without a written permit, furnished upon a regular application, from the utilities department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.061 Obstructing access to hydrants and water fixtures.

It is unlawful for any person to place upon or about any fire hydrant, gate valve,

manhole, curb-cock stop-cock, meter or meter box connected with water pipes of the system of water-works, any material, debris or structure of any kind so as to prevent free access to the same at all times.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.062 No rent for meters and appliances.

No rent or other charge shall be made by the consumer against the utilities department nor by said utilities department against the consumer for placing or maintaining any meter or appliance upon the consumer's premises.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.063 Relocating connection.

Any person desiring to change the location of a service that has already been installed shall make application to the utilities department and, upon payment in advance of the cost of time and material, including excavation and repaving, as estimated by the city engineer, the utilities department will cause said change to be made.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.064 Meters and appliances department property—Maintenance.

All water meters and appliances installed by the utilities department at its expense upon the consumer's premises shall remain at all times the property of the city and shall be maintained, repaired, and renewed by the utilities department when rendered unserviceable by normal wear and tear, and may be removed from the consumer's premises at any time.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.065 Care by consumers to avoid damage to department property.

A. The consumer shall exercise reasonable care to prevent water meters and appliances on his/her premises from being injured or destroyed, and shall refrain from interfering with the same. Where replacements, repairs, or adjustments of any water meter or other appliance are rendered necessary by any act resulting from malice or neglect of the consumer, or any member of his or her family, or of anyone employed by him or her, the cost thereof shall be charged to and paid for by the consumer on presentation of the bill therefor.

B. Any damage which may result from hot water or steam from any boiler or heater on the consumer's premises shall be paid for by the consumer on presentation of a bill therefor.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.066 Permission required for work affecting department property—Bypasses prohibited.

It is unlawful for any person to move, alter, interfere with, or remove, or cause the same to be done, any water meter or appliance installed by the utilities department without first obtaining written permission from the utilities general manager, or to make or maintain any bypass or other connection between the meter and main water line.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.067 Additional connection charge when consumer has not paid cost of main extension.

Every applicant for water service for mains installed prior to the date of application who has not theretofore either in person or through his predecessor, in interest, paid his or her proportionate share of the cost of the water main, with respect to the property to be served, shall before such application will be acted upon or water furnished pursuant thereto, pay to the utilities

department a main connection charge (front footage fee) in an amount established by ordinance of the city council or authority for each lineal foot of existing water main adjacent to the parcel. Such connection charge is in addition to all other usual and regular charges of the utilities department including charges for service connection and meter installation.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.068 Main extensions and replacement at city cost.

Whenever the utilities general manager recommends and the public interest or convenience requires the extension of any water main or the replacement of any substandard water main or mains of the utilities department, the city council or authority may make water main extensions and replacements of substandard mains, provided that funds are available.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.069 Extensions to unsubdivided property.

A. When an application is made for water service which requires a water main extension to serve property not conventionally subdivided into city lots, the area shall be considered acreage, and the extension shall be made at the expense of the applicant as hereinafter provided.

B. The required extension shall originate at the nearest adequate existing water main as determined by the utilities general manager and shall extend to and full length along the property to be provided with water service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.070 Extension designs—Specifications.

A. The design, location, materials and standards of construction of any and all extensions shall be approved by the utilities general manager.

B. The design of an extension shall be based upon consideration of adequate capacity to meet the present and future requirements of the area to be benefited, of distribution system operation and efficiency, of maintenance requirements, and of anticipated life of such extension.

C. Extensions shall generally be located on the south and east sides of dedicated city streets or in rights-of-way granted to the city for water main location. Under no circumstances shall any structure be placed over any water main or extension.

D. Materials and standards of construction shall be those which have been adopted and are used by the utilities department for the area and class of service to be provided.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.071 Cost of extensions to or in populated areas.

The cost of an extension to or in a populated area shall be borne by the applicant requiring such extension, in conformity with the following provisions:

A. Upon receipt of an application for water service which requires an extension, when such application is properly filled out and provides an accurate description of the property to be served, the city council shall cause the utilities department to prepare a map showing the area to be benefited by such extension and to make an estimate of cost of installation of the proposed extension. The applicant shall then deposit an amount established by ordinance of the city council or authority with the city. Following receipt of such deposit, the water superintendent shall cause the proposed extension to be constructed. Or, upon approval of the utilities general manager and subject to specifications of and inspection by the utilities department, the proposed extension may be installed by private contract at the applicant's sole expense.

B. Where subsequent service connections are made to the extension and where a portion or all of the cost of main extensions was paid by the applicant, the water main charges received by the city for subsequent service connections to the extension for a period of five years following the date of completion of the extension, the applicable portion of the cost shall be refunded to the person who paid for such extension or to his or her successors or assigns as provided in this chapter.

Sale of the property in this chapter referred to and conveyance of the title thereto shall constitute an assignment to the purchaser of such property, and payment of such amount as become due to the maker thereof or the purchaser of such property shall constitute a discharge of the obligations to the city of the amount so paid.

After the expiration of the five year period, any water main construction charges subsequently received shall become the sole property of the city.

A water main construction charge for each and every service connection to an extension installed under the provisions of this section, shall be paid before such service connection is made. The water main construction charge is separate from and is in addition to the service connection charge.

C. All main extensions shall be required to be eight inches in diameter or larger if required by their development. If a larger main extension is required by the city engineer, the line shall be installed by the developer at a rate determined by the city engineer.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.072 Extensions to areas subdivided by conveyances.

A. The city council is authorized to make water main extensions for the benefit of areas of the city which have been subdivided by means of conveyances, and not pursuant to any regular statute of the state or ordinance of the city, if it is in the best interests of the city to make such extensions.

B. A charge for each and every service connection to an extension installed under the provisions of this section shall be paid by the person receiving such connection before any such connection is actually made. The construction charge to be paid pursuant to the terms of this chapter is separate from and is in addition to the service connection charge. The amount of the construction charge to be charged for such water main extension shall be determined in the same manner as that provided for in subsections A and B of Section 13.03.071.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.073 Main to be installed before street paved.

Before any street within a subdivision is paved with a permanent type of pavement, any required water main shall be installed in that street.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.074 Extensions to new subdivisions.

All extensions of water mains into areas of the city hereafter subdivided, shall be installed according to the design and requirements of the utilities department and at the cost of the sub-divider; further provided, that such installations shall be made under written agreement between the sub-divider and the city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.075 Alternative procedures for mains and extensions to new areas.

The following procedure for the installation of water mains and extensions thereof

is intended as an alternate procedure to any other presently authorized by ordinance or law, and is not intended to in any way be exclusive.

A. Whenever the council of the city determines that the public interest and necessity demand the acquisition, construction and completion of water mains to undeveloped areas of the city not yet adequately served with water, for the purpose of providing such areas with water service, and appropriate moneys out of the treasury of the city for such public improvements, no person shall be permitted to connect his property to such water main nor receive water service from the city through such water main until said property owner has paid to the city the proportionate share of the cost of said water main with respect to the property of said property owner to be served; and no application, either by petition or otherwise, shall be approved by the council for the installation and completion of a water main under this section unless and until the property owners to be benefited or a sufficient number thereof shall have paid to the city, or agreed to pay, such proportionate share of the cost of said water main as in the opinion of the council insures the payment of the cost of the public improvement. Such payments shall be in addition to any other fee prescribed by any ordinance of the city or by the ordinance for the installation and connection of laterals with said water main reaching to the property of the property owners to be served.

B. Whenever the council determines that the public interest of the city will be served by the extension of water mains into new areas not adequately served with water, no persons shall be permitted to make a connection with such extension water main until the property owner whose property shall be served by said extension water main shall have paid to the city his or her proportionate share of the cost of said extension, and no application for a connection or service from said extension water main shall be approved unless and until such person shall have paid to the city his or her proportionate share of the cost of the extension water main.

C. No new water mains or extensions of existing water mains designed to serve an area of the city not yet adequately served by water shall be installed by said city under this section until the following conditions shall have been performed and the following requirements fulfilled:

1. Whether initiated by the property owners by petition or initiated by the council itself by resolution, the council shall cause a map or plat to be prepared by the city engineer and filed with the city clerk, which map or plat shall show the exterior boundaries of the entire area proposed or designed to be eventually served by the proposed public improvement, or in lieu thereof a written description of the area to be served by such public improvement, together with an estimate of the total cost of the initial improvement.

2. The adoption of an ordinance of the city council or authority which shall prescribe a minimum initial contribution to be paid by the property owners of the area to be benefited by the construction of the initial unit of such public improvement, which shall be sufficient in amount to satisfy the council that the construction cost will be paid.

D. Wherever used in this section the phrase "extension water main" is defined to mean any extension of the water main as defined in this section and also any extensions of said water main.

E. There is created in the office of the city treasurer, a fund to be known as "water capital fund" into which fund all moneys received from property owners pursuant to

the terms of this section shall be paid, and the moneys in such fund shall be used for no other purpose than the construction of water mains to serve undeveloped areas of the city, or extensions thereof.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.076 Additional regulations authorized.

The city council or authority may, by resolution, provide such rule and regulations as it may deem necessary or advisable to accomplish the intent and purposes of this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.077 Water system connection charge.

All newly constructed buildings within the city which connect to the city water system shall pay a water system "connection fee". Such connection charge for each type of building or use shall be set by city council or authority ordinance.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.078—13.03.100 Reserved.

Article II

Fees, Charges and Billing

13.03.101 Collection.

A. The rates set out in this chapter shall be charged and collected by the city of Coachella finance department for all water sold, supplied, distributed or transported by the city, except as may be established by contract.

B. The city will require each prospective customer to apply for the service desired, and also to provide the department with the necessary information to establish credit. The customer will be charged a new account fee in an amount established by ordinance of the city council or authority when applying for service. An additional fee in an amount established by ordinance of the city council or authority may be charged if the customer requires same day turn on.

C. All service applications which require the installation of a new meter will be charged an amount established by ordinance of the city council or authority for the first meter and for each subsequent meter to be installed at a single premises, when all meters are installed at one time.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.102 Water meter rates and commodity charge.

The meter rates and commodity charges for water sold, supplied, distributed or transported to customers, whether within or outside of the city limits, unless otherwise herein specified, shall be in amounts established by the city council or authority.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.103 Calculation of water bill.

The monthly bill shall be the sum of the customer charge, commodity charge and the replenishment assessment charge as set forth in Sections 13.03.102 and 13.03.120.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.104 Private fire lines—Inside city limits.

The rate for water service and water consumed by private fire lines used exclusively for fire protection, whether such lines be connected with automatic sprinkling systems or to hose attachments, shall be in an amount established by ordinance of the city council or authority.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.105 Private fire lines—Outside city limits.

Private fire line service involving use of surplus water may be made available to cus-

tomers located outside the city in accordance with rates, terms and conditions contained in contracts approved by the council.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.106 Additional charge.

In addition to the monthly rate for private fire lines set out in Sections 13.03.104 and 13.03.105, the commodity charge specified in Section 13.03.102 shall be charged for all water used for other than fire-extinguishing purposes as recorded on the bypass meter. The department may, as it sees fit, read any such bypass meter and render bills accordingly.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.107 City use.

A. All services furnished to the city, except to the utilities department, shall be paid for at the rates established by this chapter, and all water furnished to the city, except to the utilities department, shall be paid for at the meter rates and commodity charge established by this chapter. Where it is impracticable to furnish such water through a meter for sewer flushing, street sweeping, watering trees, storm drain flushing, construction purposes, and all miscellaneous uses not specifically mentioned in this chapter, such water shall be paid for at the commodity charge established by this chapter. The monthly volume of unmetered water used for such purposes shall be estimated by the utilities general manager and charges for such water shall be made in accordance with such estimates.

B. The commodity charge of the foregoing rates is subject to the replenishment assessment charge described in Section 13.03.120.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.108 Construction and miscellaneous uses.

A. Water for construction and miscellaneous uses shall service connection under the conditions stated in Sections 13.03.147 through 13.03.151. The charges be furnished through a metered temporary for use of such water shall be the appropriate meter rates specified in Section 13.03.102.

B. The commodity charge of the rates in this section is subject to the replenishment assessment charge as described in Section 13.03.120.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.109 Standby or partial service.

The rates provided in this chapter are not applicable to standby or partial service. This type of service may be furnished in accordance with rates, terms, and conditions contained in contracts approved by the council.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.110 Application for service.

The utilities department shall require each business or commercial applicant for water service to sign an application for the service desired, and also to establish credit. All applications shall be required to provide the following information:

A. Name of applicant;

B. Name of all responsible parties;

C. Social security number of applicant and all responsible parties;

D. Driver's license or California identification card;

E. If business, tax identification number, articles of incorporation, and/or limited partnership documents;

F. Purpose for which service is to be used;

G. Location of premises;

H. Address to which bills are to be mailed or delivered;

I. Telephone number where applicant can be reached;

J. Present address and telephone number of applicant and all responsible parties;

K. Previous address and telephone number of applicant and all responsible parties;

L. Place of work or business of applicant and all responsible parties;

M. Whether applicant is owner, agent or tenant of premises;

N. Necessary information to establish the credit of the applicant and all responsible parties;

O. Other premises receiving service or having received service for same applicant, service name, and all responsible parties;

P. Whether premises have been previously supplied;

Q. Date service is to commence;

R. Such other information as may be necessary to establish identity and credit worthiness of applicant and all responsible parties;

S. Complete and accurate application to restore disconnected service, due to an initial incomplete application.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.111 Application for service—Single-family domestic.

Before the commencement of use of water service in single-family domestic premises, the applicant shall inform the department as to desire for water service, sign an application for water service and provide the following information:

A. Name of applicant;

B. Name of roommate or spouse;

C. Social security number of applicant and roommate or spouse;

D. Driver's license or California identification card for applicant and roommate or spouse;

E. Location of premises;

F. Address to which bills are to be mailed or delivered;

G. Telephone number where applicant can be reached;

H. Present address and telephone number of applicant if different than premises;

I. Previous address and telephone number of applicant and roommate or spouse;

J. Place of work or business of applicant and roommate or spouse;

K. Whether applicant is owner, agent or tenant of premises;

L. Necessary information to provide identity of applicant and roommate or spouse;

M. Necessary information to establish the credit of the applicant and roommate or spouse;

N. Other premises receiving service or having received service for same applicant, roommate or spouse;

O. Whether premises have been previously supplied;

P. Date of commencement of service;

Q. Such other information as may be necessary to establish identity and credit worthiness of applicant and roommate or spouse.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.112 Noncompliance.

Any customer who fails to timely pay a water bill pursuant to this chapter may be subject to disconnection of the customer's water service and to all disconnection and reconnection fees, in addition to any enforcement mechanisms available to the city under section 13.03.114 or any other provision of law.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.113 Deposit.

A. Each applicant for water service shall deposit with the finance department a sum in the estimated amount of three months' charges for accounts billed monthly, or four months' charges in the case of accounts billed bimonthly. If the account has a master meter, each applicant for water

service, shall deposit with the department a sum in the estimated amount of three months' charges in the case of accounts billed monthly, and four months' charges in the case of accounts billed bimonthly. The deposit is calculated by taking into account all services billed by the department including, but not limited to: water, sewer, utility tax, replenishment assessment charge, and state surcharge, as determined by the department. Such deposit shall be in the form of cash, check, money order, time certificate from a commercial bank or savings and loan, or cashier's check. Deposit amounts shall be no less than the amount established by ordinance of the city council or authority. The calculated deposit shall be added to the applicant's first bill and will be due in accordance with Section 13.03.114 of this code.

B. Any such application for water service who shall have been a customer of sewer service furnished by the department and who shall, during the most recent twelve (12) months within the eighteen (18) months prior to the date of application, have paid before the issuance of any disconnection notice or late charge, all bills for services levied to such applicant by the department and who shall have provided all necessary information for credit identification of such applicant, have no unpaid delinquent closing bills or delinquent accounts with the department, and have a satisfactory rating from a credit reporting agency as chosen by the department, shall not be required to make or maintain any such deposit. Any deposit previously made by such applicant shall, after such twelve (12) months' consecutive payment of bills, be applied to such customer's account after any other unpaid delinquent accounts for such customer are satisfied.

C. Upon the discontinuation of any service, any balance of such deposit remaining in the hands of the department, after all bills for services to such customer have been paid, shall be returned.

D. On the failure of any customer to comply with the terms of this chapter regarding the payment of bills, the department may require the customer to reestablish credit in the manner specified in subsection A of this section for original service.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.114 Payment—Enforcement.

A. All charges for water sold, furnished, supplied, or delivered by the department shall be due and payable upon presentation of the bill, and if not paid within twenty (20) days thereafter, shall be deemed delinquent. The department may issue a disconnection notice for any delinquent bill and all services for a customer receiving such notice by mail or other delivery may be disconnected without further notice. If payment is not received thirty-eight (38) days from the original mailing of a bill, the larger of fifteen dollars ($15.00) or one and one-half (1½) percent of the unpaid balance will be charged and collected in addition to other amounts due from the customer. There will be a charge rendered for any dishonored or returned payment received on an account. The amount charged shall be established by resolution and shall include the actual costs for all payments which are not honored by the appropriate financial institutions for any reason.

B. Water service will not be disconnected if, within forty-eight (48) hours following the delivery of a disconnection notice, customer submits a written protest of the disputed bill containing all facts and evidence necessary to review the protest or if the bill is satisfied. The utilities general manager shall have final and conclusive determination of these protests and shall pro-

vide this determination to the customer in writing. Should the protest be denied, water service shall be disconnected within either forty-eight (48) hours from the date of personal service of the determination or within five days from the date of mailing of the determination.

C. If the customer is receiving service from the department at more than one premises, service at any or all of the customer's premises receiving service shall be subject to disconnection and discontinuance without further notice when a notice of disconnection has been mailed or delivered to such customer and bills for service at any one or more premises are not paid within the time specified above.

D. Delinquent master metered accounts will be charged a processing fee for unpaid accounts that result in the posting of tenant notices for disconnection of service more than once in a two-year period. The amount of the fee charged shall be established by resolution and shall include the actual cost of processing a delinquent master metered account. The schedule for such fee shall remain on file and be available from the city clerk of the city.

E. Master metered accounts that are delinquent to the point of posting tenants with a "notice of disconnection" will be assessed an administrative penalty as follows:

1. An administrative penalty of two hundred fifty dollars ($250.00) for the second occurrence in a two-year period;

2. An administrative penalty of five hundred dollars ($500.00) for each additional occurrence in a two-year period. The customer whose account is delinquent may appeal assessment, pursuant to Sections 13.02.780 and 13.02.785.

F. When service has been disconnected for nonpayment of bills or as a result of theft of service described in subsection H below, it shall not be reconnected to the same customer except upon payment of all prior billing for service at this account and all other accounts for this customer and any other amounts due to the department as a result of meter tampering, unauthorized use or theft as set forth in subsection H below. When the city sends a representative to disconnect the service for nonpayment of charges or other noncompliance with the provisions of this chapter or rules and regulations adopted pursuant hereto, the account shall be charged an amount established by ordinance of the city council or authority. If a customer turns on or causes to be turned on a disconnected service, the department may again turn off the service using any means to ensure that service may not be reconnected by the customer or an agent of the customer and may charge and collect an amount established by ordinance of the city council or authority in addition to any other applicable fees and costs associated with meter tampering, unauthorized use or theft of service described in subsection H below.

G. Each time a department representative returns to a customer's premises to reconnect a service, an additional fee shall be charged and collected from the customer before service is restored. When same-day service restoration is requested, the service restoration fee shall be an additional amount. The city council shall establish such amounts by ordinance.

H. The following provisions shall apply where it has been determined by the general manager that the unauthorized use or theft of water has occurred by a customer:

1. Service may be disconnected and a fee in an amount established by ordinance of the city council shall be charged and collected in addition to any other amounts due from the customer including, but not

limited to, costs associated with the repair and/or replacement of any damaged meters, meter locking devices and/or other related equipment, loss of revenue related to such theft, attorney's fees, city personnel time, resources and investigative costs, in addition to any penalties provided for in any other section of this code or imposed due to violation of state or local law, if a customer has:

a. Caused or allowed interference of registration or recording of usage or the bypassing of the meter either partially or completely; or

b. Restored service by any means after service has been terminated for nonpayment or obtained water without making the proper application or receiving proper authorization from the Coachella utilities department; or

c. Damaged, removed, or tampered in any manner with any part of a meter, meter seal, or meter locking device; or

d. Obtained service by use of a metering device which is not authorized by the Coachella utilities department; or

e. Fraudulently obtained, or attempted to obtain, service by the use of a false name and/or identification, or by placing the account in the name of someone else after service has been disconnected for nonpayment of service fees and/or due to theft of service and circumstances associated therewith as described in this section.

2. Any customer who has been determined by the utilities general manager to have engaged in any of the acts described in subsection H.1. and has had notice of disconnection mailed or delivered shall have service disconnected if proper connection, to the satisfaction of the department, is not established within forty-eight (48) hours of the delivery of the notice. Service shall be restored or established only upon proper connection, to the satisfaction of the department, and the payment of all outstanding fees and costs by the customer. Where the customer has had prior notice of disconnection mailed or delivered by the department and has restored connection without authorization, or where the conduct of the customer has resulted in a hazardous condition, service may be disconnected immediately and shall not be restored until proper connection, to the satisfaction of the department, has been established and all outstanding fees and costs have been paid by the customer.

3. Any customer who has been determined by the utilities general manager to have engaged in any of the acts described in subsection H.1. may appeal the assessment of administrative penalties and costs as described in Sections 13.02.780 and 13.02.785 after the notice of the assessed charges.

I. In the event that a premises is vacant or there is no responsible party on file with the city, the owner of such premises or landlord of such premises shall be liable to the city for the payment of any charges incurred. This includes all charges incurred between the time a tenant vacates the premises and the premises are reoccupied by a new tenant.

J. The department may apply interest to all delinquent accounts.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.115 Disputed or erroneous bills.

Whenever the correctness of any bill for water is in dispute, the utilities and or finance department will cause an investigation to be made.

Bills reflecting clerical or meter errors shall be adjusted to a correct basis as determined by the city's investigation for a period of not to exceed six months prior to discovery of the error. Adjustments for slow or fast meters shall be made in accordance with Sections 13.03.206 and 13.03.207.

In cases where other factors required for application of rate schedule or other provisions, are not subject to exact determination or are in question, or in disputed cases relative to service or rate application, the department shall establish such factors by tests, analyses and investigations to determine the proper basis for making an adjustment, if any. Adjustments in the billing shall then be authorized by the utilities general manager as shown to be proper. Such adjustments shall be subject to review, when requested by the customer or by the city manager.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.116 Lien for delinquent charges.

Any water rates authorized pursuant to this article which remain unpaid for sixty (60) days past the date upon which they were billed may be collected thereafter by the city, as provided as follows:

1. The city shall cause a report of delinquent water fees to be prepared periodically. The city council shall fix a time, date and place for hearing the report and any objections or protests thereto. The report shall contain a list and description of each parcel of real property to which is attributed a delinquency in the payment of water rates, for a period of sixty (60) days or more, the names of the owners and the total amount of the delinquency attributable to that parcel.

2. The city council shall cause notice of the hearing to be mailed to the owners of the property with delinquencies, as listed on the latest equalized assessment roll. Such notice shall be sent not less than fourteen (14) days prior to the date of the hearing and shall inform the recipients of the amount of unpaid water rates and penalties. Such notice shall inform the owners that the unpaid water rates and penalties will be assessed against and shall result in a lien on their property.

3. At the hearing, the city council shall hear any objections or protests of the landowners who are to be assessed for delinquent fees. The city council may make such revisions or corrections to the report as it deems just, after which, by resolution, the report shall be confirmed.

4. The delinquent water rates, and any penalties thereon, set forth in the confirmed report shall constitute a special assessment against the respective parcels of land and are a lien on the property for the amount of delinquent fees, the late charges, and cost of lien. The city clerk shall certify, over his signature, that the report has been adopted by the city council in its final form, and file the report with the county auditor. In addition, the city clerk shall also record the amount of unpaid charges with the county recorder.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.117 Termination of service.

If all structures in which water is served are removed from a property served by the water system, or if the structure in which water is served is demolished, then the city shall consider the service disconnected and shall provide a prorated adjustment of monthly assessment based upon the first day of the month following the notification of removal or demolition of the structure by the city building official. The owner shall be entitled to a refund of the deposit or to such portion of the deposit as may be unused, upon written application therefore. Termination of service shall be considered equivalent to disconnection.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.118 Reconnection.

After a building water service has been disconnected from the city water system, it shall not be reconnected until all delinquent charges plus penalties, all charges which

have accrued since the time of disconnection, any supplementary connection charges, and the estimated cost of reconnection have been paid; the deposit restored to the required amount; and any required guarantee for the payment of bills has been made. In addition to the connection charge, the deposit shall be paid or restored to the required amount as provided in this article. All of the charges, deposits and other amounts required to be paid shall be paid before the building water service is reconnected to the city water system.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.119 Restoration of terminated service.

After service to a property has been terminated, the water service connection permit issued for the property shall be considered cancelled. The permit and service shall not be considered as restored until all delinquent charges plus penalties, all charges which have accrued since time of termination, and a restoration charge in an amount established by ordinance of the city council or authority has been paid and the deposit restored to the required amount. In addition to the amount provided in this section, all of the charges, deposits and other amounts required to be paid shall be paid before the permit and service are restored.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.120 Annual review of rates; pass-through of rate increases.

A. The water rates established by this article shall be subject to annual review and evaluated in conjunction with annual fiscal year budget preparation. Water rates shall be set based upon the actual cost to the city, and shall include costs for providing water service, capital reserve requirements, any administrative overhead allocation as determined by the annual review, plus any deficit recovery as determined by the city council or authority. Administrative overhead cost shall be assessed for providing support services to the enterprise fund and shall be set annually by the city council or authority through an adopted cost allocation plan.

B. Any increase in any currently applicable, legally adopted monthly charge assessed by an agency or district providing water replenishment service to the city shall be immediately passed through to the affected property owners. Any amounts overcollected by the city shall be applied first to the deficit recovery, if any, then to fund balance.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.121—13.03.140 Reserved.

Article III

Water Service Connections

13.03.141 Inside city limits.

The department shall furnish, install and maintain all service connections and the charges for these facilities shall be at the expense of the owner of the premises.

A. Water Services. The service connection installation charges shall be the cost to the department and shall include meter housing. Water service installation costs are charged in accordance with the department schedule of charges for water service connections, adopted by resolution of the council, and on file in the office of the utilities general manager. The water connection fees shall be adjusted by resolution of the council on an as-needed basis.

B. Private Fire Line Protection Services. The charge for the private fire protection service connection installation including bypass meter, check valve and housing shall be at the cost to the department, charged in accordance with the department

schedule of charges for water service connections, adopted by resolution of the council, and on file in the office of the utilities general manager. The water connection fees shall be adjusted by resolution of the council on an as-needed basis.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.142 Outside city limits.

Charges outside city limits are the same as inside city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.143 Separate connections required—Exceptions.

Two or more houses or buildings under the same ownership and on the same lot or parcel of land may be supplied through the same service connection or a separate service connection may be provided for each house or building. The department shall have the right to limit the number of houses or buildings, or the area of the land under one ownership, to be supplied by one service connection. The same service connection shall not be used to supply water to property in a single ownership which is separated by a public street, alley or right-of-way or which is non-adjoining. The same service connection shall not be used to supply water to adjoining property of a different ownership.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.144 Connection.

In making application for a water service connection, the applicant shall specify the premises to be served by such service connection and only the premises so specified shall receive water through such service connection.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.145 Violation—Disconnection—Notice.

Any service connection used in violation of Section 13.03.143 or 13.03.144 may be disconnected by the department after a thirty (30) day written notice of intention to disconnect such connection has been mailed to the person in whose name service is rendered at such person's address as shown by the records of the department. The notice shall contain a statement of the reasons for such disconnection and the proposed date of disconnection.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.146 Subdivision.

When property provided with a service connection is subdivided, each service connection shall be considered as belonging to the lot or parcel of land which is nearest to it.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.147 Temporary service connection—Purpose.

A temporary service connection may be installed for construction purposes, temporary concessions or any other special use where it is not practicable or reasonable under the circumstances to install a permanent service connection.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.148 Temporary service connection—Deposit.

Upon application for a temporary service connection, no water shall be supplied through such temporary service unless a deposit for service has been so made and remains in the hands of the department undiminished. The deposit shall be in an amount established by ordinance of the city council or authority.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.149 Temporary service connection—Charges.

When a temporary service connection is terminated and disconnected, the cost of

equipment, installation and disconnection shall be totaled, the salvage value of the material recovered deducted therefrom and the balance remaining of the original deposit shall be refunded. Should the total cost of the equipment, installation and disconnection exceed the amount of the deposit, the applicant shall be billed for such excess.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.150 Temporary service connection—Duration.

A temporary service connection shall be terminated and disconnected within six months after installation, unless an extension of time is granted by the department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.151 Temporary service connection—Conversion to permanent service connection.

A temporary service connection conforming with all requirements of a permanent service connection may be made permanent; provided, that all charges required for a permanent service connection at that premises are paid.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.152—13.03.170 Reserved.

Article IV

Water Mains

13.03.171 Definitions.

Unless otherwise expressly stated or the context clearly indicates a different intention the following terms shall, for the purpose of this chapter have the meanings indicated in this section:

"Authority" means the Coachella Water Authority.

"Distribution main" means a water main, or a part of the capacity thereof, designed or used to distribute water for fire protection and domestic use within a given territory served by the city.

"Supply main" means a water main, or a part of the capacity thereof, designed or used for the purpose of transporting water to a distribution main.

"Water main" means the principal pipe or conduit laid in a street or right-of-way through which water is transported or distributed by the city.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.172 Water line contamination.

No person shall connect, cross-connect, maintain or install any tank, fixture, receptacle or other device in or on any premises which is connected to any water line, pipe or conduit, which conveys or carries any water for domestic or human consumption if the plan, arrangement, connection, maintenance or installation is such as to make possible any contamination or pollution of such water.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.173 Property serviced.

Except where it is impracticable to do so, all property shall be served with water from a water main installed in a street or right-of-way on which such property fronts or to which it is contiguous. If there be no such main, an extension of an existing water main shall be required as a condition to obtain service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.174 Connection to existing main.

A. If there is an existing water main from which service may be obtained, property not previously connected to the main may receive water service through such main upon payment of the service connection

installation charge provided for in Sections 13.03.141 and 13.03.142 and except as provided in this section, upon payment of the water construction charge provided for in Section 13.03.175.

B. No water main construction charge shall be required to be paid where such existing water main or any main which it may have replaced has been or shall have been constructed for the benefit of such property and at no expense to the city, either from its general fund, water fund or moneys derived from a bond issue authorized by election.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.175 Computation of construction charge.

When a water main construction charge is required to be paid, the amount thereof shall be the percentage of the cost of constructing the main that is equal to the percentage that the area sought to be connected is of the entire area of all land determined by the utilities general manager to be benefitted by the construction of such main. In calculating the area to be connected within the area to be benefitted, all of the area of any parcel up to five thousand (5,000) square feet shall be included, plus fifty (50) percent of the area of any parcel over and above the first five thousand (5,000) square feet.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.176 Extension—Made at applicant's expense—Type of construction.

A. Where a water main extension is required to provide water service, it shall be made at the expense of the person applying for such service, except as provided in this chapter. Such extension shall extend from the nearest water main in place to and for the full length of that portion of the street or right-of-way on which the property to be served fronts or to which it is contiguous.

B. Such extension shall be an AWWA approved material, or equal, of adequate capacity to meet the requirements for a distribution main in the territory to be immediately or ultimately served thereby as determined by the utilities general manager in accordance with efficient operating requirements of the water system.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.177 Extension—Application—Deposit—Charges.

A. Upon the receipt of an application for a water main extension to serve property having no available water main and a deposit in such an amount as the utilities general manager shall estimate to be sufficient to pay the cost of making the same, the utilities general manager shall cause such extension to be made. The actual cost of such extension shall be taken at not less than the amount which would be required to be paid as a water main construction charge if an available main existed. The application shall describe the property intended to be benefitted by such extension.

B. Upon the completion of such extension and the determination of the actual cost thereof, any remaining portion of such deposit in excess of such cost shall be refunded. In case such deposit is insufficient, the applicant shall be liable to the city for such deficiency. The service connection installation charge provided for in Sections 13.03.141 and 13.03.142 shall be in addition to the amounts required to be paid by this section.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.178 Application—Supply-main charge.

When application is made for a water main extension the applicant, in addition to

all other charges provided for in this title shall be required to pay a supply-main charge. Such charge shall be based upon the cost of the supply main serving the territory in which the property for which the water main extension is applied for is located. The utilities general manager shall determine the ratio which the property bears to the total area of the territory served or to be served by such supply main and the benefit which it will receive from such supply main and shall fix the amount of the charge accordingly.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.179 Reimbursement of construction costs.

If a water main extension has been installed at no expense to the city either from its general fund, water authority fund or from moneys derived from a bond issue authorized by election for the benefit of certain property, the water main construction charges thereafter received by the city, within fifteen (15) years from the date of the completion of the installation of such extension, for subsequent service connections thereto from all other property, shall be refunded to the person who paid for such extension or to such person's successors or assigns; provided, that the amount of such refund shall in no case exceed the actual cost of such extension less the amount which would have been required to be paid by this chapter as a water main construction charge for service to the property for the benefit of which the extension was originally made.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.180 Installation in new subdivisions.

A. Where a water main extension is required to serve property in a new subdivision, the provisions of Sections 13.03.176, 13.03.177 and 13.03.179 shall apply. If there is an existing water main from which such property or any portion thereof may be served, water main construction charges as provided for by Sections 13.03.174 and 13.03.175 shall be paid by the sub-divider.

B. Where it is necessary to install pumping and reservoir equipment to establish and maintain adequate water pressure and supply for service to new subdivisions, as determined by the utilities general manager, the applicant shall deed to the city permanent graded sites and access thereto for such equipment; shall pay the cost of the connecting main to the water storage facility, shall pay the benefiting cost of booster pumping and water storage facilities, and other necessary appurtenances. Benefiting costs as determined by the utilities general manager, shall be the ratio which the property bears to the total area of the territory, served or to be served by such booster pumping and water storage facilities and the benefits which it will receive from such facilities and shall fix the amount of the charge accordingly.

C. In addition to providing the water system in the subdivision and other water facilities and their costs as required in this section, the developer shall pay to the department such amount as is required, in the judgment of the utilities general manager, to conform off-tract water facilities to the requirement of the subdivision. The design of the water facilities for the subdivision and of all off-site water facilities shall conform to the requirements of the department and shall comply with all applicable ordinances, rules and regulations.

D. The applicant shall also deed to the city all rights-of-way that may be necessary for permanent or temporary pipelines or other equipment.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.181 Territory annexed.

A. All territory annexed after January 1, 2012 and to be served with water by the

city shall provide distribution mains meeting department standards and specifications. These distribution mains shall be installed and conveyed to the city. If on the date of annexation of any territory to the city, the distribution mains in place do not meet city standards and specifications, they shall be replaced with mains meeting such standards and specifications at the expense of the property owners to be benefitted. When the department determines that a substandard main existing on the date of annexation is adequate to serve the property adjacent thereto for a substantial number of years, in lieu of immediate construction of a new main, such existing substandard main may be conveyed to the city, and a special area charge shall be paid to the development on behalf of each parcel of property adjoining such main before water service is provided to such parcel by the city. Such special area charge shall be calculated by the department so as to recover from the owners of property benefitted, on the basis of area, their share of the cost of replacing the substandard main with a main meeting city standards and specifications. The detailed formula for calculating such charges and the method of payment shall be prescribed in rules and regulations adopted pursuant to this chapter.

B. In addition to requirement of subsection A of this section, all territory annexed after January 1, 2012, shall pay for the cost of acquiring and constructing the supply and transmission mains and water producing, pumping and storage facilities required to serve such territory and pay a proportionate share of the unpaid cost of other supply and transmission mains and water producing, pumping and storage facilities which benefit such territory. The costs shall be determined by the department and method of payment shall be prescribed in rules and regulations adopted pursuant to this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.182 Variances.

Where the strict enforcement of the provisions of this chapter will present practical difficulties or work unnecessary hardships or will result in an ultimate cost or charge to an applicant for water service which is not or will not be commensurate with the benefits to be received, the utilities department shall fix the amount of such cost or charge in such an amount and may prescribe such conditions respecting refunds and such conditions relating to service as are in harmony with the purposes and spirit of this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.183 Distribution system water pressure.

Any distribution system extension requiring a new water system pressure service zone shall be designed to provide a minimum operating pressure throughout the new distribution system zone of no less than sixty-five (65) pounds per square inch at all times.

The pressure for compliance is measured at the "service connection" to the water main in the street.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.184—13.03.200 Reserved.

Article V

Water Meters

13.03.201 Water meters.

The department shall furnish, set and maintain all meters, and the charges for the meters and installation shall be at the expense of the owner of the premises.

A. Water Meters. Water meters shall be installed on all water services. For new

meter installations an application fee in an amount established by the city council or authority will be charged for each water meter to be installed at that premises.

B. Detector Check Meters. There shall be installed on all private fire line connections a check valve of a type approved by the National Board of Fire Underwriters and equipped with a bypass meter. Detector check meter charges are in an amount established by ordinance of the city council or authority.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.202 Monthly readings—Special readings.

In order to determine the rates to be charged each customer of water under the terms of this chapter, meters shall be placed upon each service connection to measure the water furnished or delivered, except in cases of the rates specified in Sections 13.03.104 and 13.03.108. All meters shall be read by the department at intervals of approximately one month, or as nearly so as the convenient operation of the department will permit except as provided for in Section 13.03.203. The interval between two successive meter readings shall be deemed and regarded as a month for the purposes of this chapter, and all rates shall be computed accordingly. When service is commenced or discontinued between regular meter readings, the customer charge will not be prorated and the bill shall be the customer charge applicable to the size meter through which such service is taken plus the commodity charge.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.203 Bimonthly readings—Computation of bill—Special readings.

A. The utilities department may cause bimonthly reading of meters for all or any portions of the system whenever it determines that such practice will result in a more economical collection of bills for water. When such bimonthly reading of meters occurs, the department shall read such meters at intervals of approximately two months, or as near thereto as the convenient operation of the department will permit, and the interval between two successive meter readings shall be deemed and regarded as two months for the purposes of this chapter.

B. The customer charge shall be twice the customer charge prescribed in this chapter, and the commodity charge shall be computed by applying the rates prescribed in this chapter to one-half (1/2) the water consumed during a two-month period and multiplying the results by two. When service is commenced or discontinued between regular meter readings, the customer charge will not be prorated and the bill shall be the customer charge applicable to the size meter through which such service is taken if service period is one month or less, or twice such customer charge if service is for a period in excess of one month, plus in either case the commodity charge.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.204 Separate water meters required—Exception.

A separate meter shall be placed for each individual residential dwelling unit and upon each separate service connection and the rate to be paid shall be computed separately upon each meter. For multi-residential buildings the department may install less than one meter for each resident dwelling unit when needed to meet other goals of the city's general plan.

For nonresidential services, the department may in lieu of a single meter and where special operating or service conditions require, install such number of meters

on a service connection as shall be necessary to equal the capacity of such a single meter. For billing purposes, the consumption as registered by a battery of meters installed pursuant to this section shall be combined and charged for at such rate including the monthly minimum charge, as though the water were supplied through a single meter.

Meters shall be installed in close proximity to the building itself and screened in a manner required by the city. Installation of meters in the parkway next to the street curb may be allowed if the number of meters is four or fewer and the configuration of the parkway shows that the location is appropriate. The technical specifications of the installation shall be as required by the utilities general manager.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.205 Ownership—Replacement and repairs.

All water service connections, meters and housings installed by the department or conveyed to the department, however provided for, shall remain at all times the property of the city and shall be maintained, repaired and renewed by the department when rendered unserviceable through reasonable use. Where replacement, repairs or adjustments are rendered necessary by the act, negligence or carelessness of the customer, any member of the customer's family, person in the customer's employ, or agent of the customer, any expense caused to the city thereby shall be charged and collected from the customer. The water meter may not be altered or tampered with or removed by anyone other than the city of Coachella utilities department personnel. No meter seal may be broken by anyone other than the city of Coachella utilities department personnel. Utilities department may give its prior consent to seal breaking by the customer when deemed necessary by the utilities department. Unauthorized alteration, tampering or removal by any party, including a licensed plumber, will result in the customer being charged unauthorized meter alteration fees and any other applicable charges described in subsection H. No rent or charge will be paid by the department where such facilities are located on the customer's premises. The department may relocate its facilities as required by operating conditions, and may relocate any and all of its facilities from customer's premises at the termination of service.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.206 Meter tests.

A. Whenever the accuracy of a water meter is questioned, the customer may demand that the meter be examined and tested by the department. Such demand shall be made in writing to the department, and shall be accompanied by a deposit in an amount established by ordinance of the city council or authority. Upon receipt of such demand and deposit, the department shall cause the meter to be examined and tested. Such customer shall have the right to require the department to conduct the test in the customer's presence or in the presence of an expert or other representative appointed by the customer.

B. If the meter shall be found to register over two percent more than actually passes through it under conditions of normal operation, then the meter shall be properly adjusted or another meter will be substituted therefor, and the deposit shall be refunded to the customer. If the meter is found to register not over two percent more than actually passes through it, the deposit shall be retained by the department as partial compensation for the examination and test.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.207 Adjustment of bills for meter error.

A. When a meter is found to register over two percent more than actually passes through it, the department will refund to the customer the overcharge based on the corrected meter readings for the period in which the meter was in use, not exceeding six months; provided, that if the actual cause and period of error can be definitely determined, the correction shall be made to cover such period.

B. If the meter upon test as herein provided is found not to register or to register less than ninety-eight (98) percent of the actual usage, an average bill or a bill for the water used but not covered by the bills previously rendered, for a period not to exceed six months, shall be rendered to the customer by the department; provided, that if the actual cause and period of error can be definitely determined, the correction may be made to cover such period.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.208 Access to water meter.

A. All meters used for billing purposes will be furnished and installed by the department on the customer's premises in accordance with the "water service requirements" of the department and so located and spaced as to be accessible for inspection, reading, and testing. The owner of any premises shall, at the owner's expense, provide extension to the owner's plumbing for an approved meter location to comply with the foregoing whenever the existing meter has become inaccessible for inspection, reading, and testing by reason of changes in building or any changes made for the convenience of tenant or owner.

B. For billing purposes, if a water meter becomes inaccessible for inspection, reading, or testing, the department shall make reasonable estimates of water usage, until such time as access to the meter is restored.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.209—13.03.240 Reserved.

Article VI

Backflow Prevention

13.03.254 Purpose.

The purpose of this chapter is:

A. To protect the public water supply of the city by isolating the customer's water system from the city water service, thus preventing contamination or pollution from the customer's premises to the city water system;

B. To eliminate both potential and existing cross-connections between the potable water system and non-potable water systems within the customer's premises;

C. To maintain the backflow prevention program by administering an inspection and testing program of backflow prevention assemblies installed near the meter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.255 Policy.

A. The city of Coachella utilities department has a responsibility to protect the public water system from contamination caused by the backflow of contaminants through the water service connection. If in the judgment of the department, where contamination is possible, an approved backflow prevention assembly is required, the department shall give notice to the customer to install the approved assembly or assemblies at the service connection to the premises. The customer shall immediately install the approved assembly or assemblies at the customer's own expense. Failure, refusal or inability on the part of the customer to install the approved assembly or assemblies shall constitute grounds for disconnecting water

service to the premises until the backflow assembly or assemblies have been installed.

B. These regulations shall apply to all premises served water by the department.

C. These regulations are adopted pursuant to the state of California Administrative Code Title 17, Public Health, entitled "Regulations Relating to Cross-Connections" and all subsequent amendments. This title requires that each water purveyor develop and implement a comprehensive backflow prevention program for protecting the public water supply from contamination or pollution.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.256 Definitions.

The following words and phrases shall have the meanings ascribed to them, unless otherwise noted:

"Approved backflow prevention assembly" means a device or a physical separation that has been designed specifically for preventing the backflow of water or liquid from entering the system and the device that has passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the California Department of Public Health.

"Approved water supply" means any water supply whose use is regulated by the state or local health agency.

"Auxiliary supply" means any water supply on or available to the premises other than the city water supply.

"AWWA standard" means an official standard developed and approved by the American Water Works Association (AWWA).

"Backflow" means a flow condition, caused by a differential in pressure, that causes the flow of water or other liquids, gases, mixtures or substances into the distributing pipes of a potable supply of water from any source or sources other than an approved water supply source. Back siphonage is one cause of backflow. Back pressure is the other cause.

"Backflow prevention supervisor" means a person, designated by the utilities general manager and at the expense of the water user, to maintain the backflow prevention assemblies and to prevent cross-connections on the premises.

"City water system" means the source facilities and distribution system under the control of the utilities department up to and including the meter.

"Contamination" means an impairment of the quality of the potable water by sewage, industrial fluids or waste liquids, compounds or other materials to a degree which creates an actual or potential hazard to the public health.

"Cross-connection," means and includes any unprotected actual or potential connection or structural arrangement between a potable water system used to supply for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome and potable. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered to be cross-connections.

"Customer's water system" means and includes all facilities beyond the service meter. The system or systems may include both potable and non-potable water systems.

"Department," when used in this chapter, means the utilities department of the city.

"Double check detector assembly" (DCDA) means a backflow prevention device consisting of a line size double check valve assembly in parallel with a detector

meter and meter size double check valve assembly. Each double check valve assembly is to be equipped with properly located test cocks and a tightly closing shutoff valve at the end of the assembly.

"Double check valve assembly" (DCVA) means an assembly composed of at least two independently acting check valves including tightly closing shutoff valves on each side of the check valve assembly and test cocks available for testing the watertightness of each check valve.

"Double check valve backflow prevention assembly" (DCV) means a backflow prevention device consisting of two independently operating spring-loaded check valves. In the event one valve is obstructed, the second valve should close to prevent reverse flow. The device should include tightly closing resilient seated shutoff valves at each end of the assembly and be fitted with properly located resilient seated test cocks.

"Hazard, degree of." "Degree of hazard" is a term derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

1. "Health hazard" means any condition, device, or practice in the water supply system and its operation which could create, or in the judgment of the division, county or state health official, may create a danger to the health and well-being of the water customer.

2. "Plumbing hazard" means a plumbing type cross-connection in a customer's potable water system that has not been properly protected by an approved air-gap or approved backflow prevention assembly.

3. "Pollution hazard" means an actual or potential threat to the physical properties of the water system or to the drinkability of the public of the customer's potable water system but which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances, but would not be dangerous to health.

4. "System hazard" means an actual or potential threat of severe damage to the physical properties of the public potable water system or the customer's potable water system or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

"Health agency" means the California Department of Public Health.

"Local health agency" means the County of Riverside Department of Public Health.

"Person" means an individual, corporation, company, association, partnership, municipality, public utility or other public body or institution.

"Pollution" means the presence of any foreign substance (organic, inorganic or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such waters for domestic use.

"Premises" means any and all areas on a customer's property which are served or have the potential to be served with water.

"Public water system" means a system for the provision of piped water to the public for human consumption by the city.

"Reduced pressure detector check assembly" means a backflow prevention device consisting of a line size reduced pressure principle device in parallel with a detector meter and meter size reduced pressure principle device. Each reduced pressure principle device is to be equipped with properly located test cocks and a tightly closing shutoff valve at each end of the assembly.

"Reduced pressure principle backflow prevention assembly" (RPBA) means an assembly incorporating not less than two independently acting approved check valves together with an automatically operated differential relief valve located between the check valves. The unit shall include properly located test cocks and tightly closing shutoff valves at each end of the assembly.

"Service connection" means the point of connection of a user's piping to the water supplier's facilities.

"Water supplier" means the city of Coachella utilities department.

"Water user" means any person obtaining water from an approved water supply system.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.257 Cross-connection prohibited.

No water service connection shall be installed or maintained to any premises where actual or potential cross-connections are known to exist unless such cross-connections are abated or controlled to the satisfaction of the department.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.258 Surveys and investigations.

A. Existing Facilities. At all reasonable times, the customer's premises shall be open to the department for the purpose of conducting surveys and investigations to determine whether there are actual or potential cross-connections within the customer's premises through which contamination or pollution could backflow into the city water system, provided, however, that the department will seek permission to enter any occupied residence unless there exists an emergency or condition immediately threatening the public health, safety or welfare.

B. New Buildings and Facilities. The city development services and engineering departments, in cooperation with the utilities department, will review plans and other conditions to determine if a backflow assembly is required or waived as water service protection for new buildings and facilities. If the installation of a backflow prevention assembly is required in the building or as a meter protection, a plumbing permit shall be issued by the city to comply with the city plumbing code. Existing commercial and industrial buildings and facilities will be reviewed for compliance with City backflow prevention ordinance when changes in occupancy occur or when required by the utilities general manager.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.259 Type of protection required.

A. The type of protective device that may be required to prevent backflow into the approved water supply (listing in an increasing level of protection) includes: double check valve assembly (DC), reduced pressure principle backflow prevention assembly (RP), and an air-gap separation (AG). The customer may choose a higher level protection than required by the department.

B. The minimum types of backflow protection that shall be installed on customer's premises at the service connection whenever the following degrees of hazard exist are as follows:

Degree of Hazard	Prevention	Minimum Type of Backflow Prevention
1. Sewage and Hazardous Substances.		
a.	A system where the city water system is used to supplement a recycled water supply. If an emergency exists where potable water is connected to a recycled water system, potable water system shall be isolated by an air-gap separation as determined by the utilities general manager and the health agency. An approved backflow prevention assembly shall be installed on the potable water line.	AG
b.	A system where there are wastewater pumping and/or treatment plants and there is no interconnection (but the potential exists) with the city water system. This includes multifamily buildings, but not a single-family residence, that has a sewage lift pump. A reduced pressure principle backflow prevention assembly may be provided in lieu of an air-gap if approved by the utilities general manager and the health agency.	AG
c.	A system where recycled water is used and there is no interconnection (but the potential exists) with the potable water system. A reduced pressure principle backflow prevention assembly may be provided in lieu of an air-gap if approved by the utilities general manager and the health agency.	AG
d.	A system where hazardous substances are handled such as to create an actual or potential hazard to the city water system. This shall include systems having auxiliary water supplies, tanks or industrial piping systems containing process fluids or used waters originating from the city water system which are no longer under the sanitary control of the city. This, however, does not include a single-family residence that has a sewage lift pump. A reduced pressure principle backflow prevention assembly may be provided in lieu of an air-gap if approved by the utilities general manager and the health agency.	AG
e.	A system where there are irrigation systems into which fertilizers, herbicides or pesticides are, or can be, injected.	RP
2. Auxiliary Water Supplies.		

Degree of Hazard	Prevention	Minimum Type of Backflow Prevention
a.	A system where there is an unapproved auxiliary water supply which is interconnected with the public water system. A reduced pressure principle backflow prevention assembly may be provided in lieu of an air-gap if approved by the utilities general manager and the health agency.	AG
b.	A system where there is an unapproved auxiliary water supply and there are no interconnections with the public water system. A double check valve assembly may be provided in lieu of a reduced pressure principle backflow prevention assembly if approved by the utilities general manager and the health agency.	RP
3. Fire Protection Systems. All fire protection systems will be required to have backflow prevention devices as described below. However, Class I and Class II fire protection systems will be exempt from these requirements. Class I and Class II fire protection systems are defined under Section 13114.7 of the California Health and Safety Code (Refer to AWWA Manual M-14).		
a.	A fire system that is directly supplied or from the public water system and an unapproved auxiliary water supply is available for use on or to the premises (not interconnected). A double check valve assembly may be provided in lieu of a reduced pressure principle backflow prevention assembly if approved by the utilities general manager and the health agency.	RP reduced pressure detector check assembly
b.	A fire system that is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A reduced pressure principle backflow prevention assembly may be provided in lieu of an air-gap if approved by the utilities general manager and the health agency.	AG
c.	A fire system supplied by the recycled water and the department's water system is used as a supplemental supply.	AG
d.	A fire system that is supplied from the department's water system and there exists a recycled water supply to the premises (not interconnected). An RP assembly may be provided in lieu of an AG if approved by the utilities general manager and the health agency.	AG

Degree of Hazard	Prevention	Minimum Type of Backflow Prevention
e.	A fire system that is supplied from public water system and where either elevated storage tanks or fire pumps which take suction from the private reservoirs or tanks are used. A double check valve assembly may be proved in lieu of a reduced pressure principle backflow prevention assembly if approved by the utilities general manager and the health agency.	RP or reduced pressure detector check assembly
f.	A fire system that is interconnected with more than one service connection from the city water system and check no other system hazard exists.	DC or double check detector check assembly
4. Other Systems.		
a.	A system that requires a booster pump on RP the service connection line. (For fire service requirements, refer to subsection (B)(3)(e) of this section.)	RP
b.	A system where there are intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes making it impracticable or impossible to ascertain whether or not cross-connections exist.	RP
c.	A system that is restricted, classified or closed to on-site inspection.	RP
d.	A system where there is a repeated history of cross-connections being established or reestablished within customer's premises.	RP
e.	A system with internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the utilities general manager and the health agency.	RP
f.	Two or more services supplying water from different street mains to the same building, assembly, structure or premises through which an inter-street main flow may occur, shall have a double check valve on each water service to be located adjacent to and on the property side of the respective meters.	DC
g.	Other systems which may be specified by the department from time to time.	
Devices to be specified		

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.260 Backflow prevention assemblies.

A. Approved Backflow Prevention Assemblies. Only backflow prevention devices which have been approved by the utilities general manager shall be acceptable for installation by a water user connected to the public water system.

B. Backflow Prevention Assembly Installation.

1. The approved backflow assembly shall be installed at the expense of the customer.

2. Air-Gap Separation (AG). The air-gap separation shall be located on the customer's premises as close to the service connection as is practical. All piping from the service connection to the receiving tank shall be above grade and be entirely visible. No water use shall be provided from any point between the service connection and the air-gap separation. The water inlet piping shall terminate a distance of at least two (2) pipe diameters of the supply inlet, but in no case less than one (1) inch above the overflow rim of the receiving tank as specified in the current edition of the Uniform Plumbing Code requirements for minimum air-gaps for water distribution.

3. Reduced Pressure Principle Backflow Prevention Assembly (RP). The approved reduced pressure principle backflow prevention device shall be installed on the customer's premises and as close to the service connection as is practical. The device shall be installed a minimum of twelve (12) inches above grade and no more than thirty-six (36) inches above grade measured from the bottom of the device and with a minimum of twelve (12) inches side clearance. The assembly shall be installed so that it is readily accessible for maintenance and testing. Water supplied from any point between the service connection and the RP device shall be protected in a manner approved by the utilities general manager.

4. Double Check Valve Assembly (DC). The approved double check valve assembly shall be located as close as practical to the user's connection and shall be installed horizontally above grade and in a manner where it is readily accessible for testing and maintenance. If it is necessary to put a double check valve assembly below the grade, upon the approval of the assistant general manager and the local health agency, it must be installed in a vault such that there is a minimum of twelve (12) inches between the bottom of the vault and the bottom of the assembly so that the top of the assembly is not more than a maximum of eight (8) inches below grade, so there is a minimum of twenty-four (24) inches of clearance between the side of the assembly with the test cocks and the side of the vault, and a minimum of twelve (12) inches clearance between the other side of the assembly and the side of the vault. The vault must have adequate drainage to prevent flooding. Special consideration must be given to double check valve assemblies of the "Y" type. These devices must be installed on their "side" with the test cocks in a vertical position so that either check valve may be removed for service without removing the assembly. Vaults which do not have an integrated bottom must be placed on a three-inch layer of gravel.

5. Approved backflow assemblies shall have at least the same cross-sectional area as the water meter. If a continuous water supply is necessary, two sets of approved backflow assemblies shall be installed in parallel. Where parallel assemblies are required, the sum of the cross-sectional areas of the assemblies shall be at least equivalent to the cross-sectional area of the meter.

6. There shall be no outlet, tee, tap or connection of any sort between the water meter and the approved backflow assembly.

A "Y" strainer and/or pressure-reducing valve installed before the approved backflow assembly are the only exceptions.

7. Approved backflow assemblies shall not be bypassed, made inoperative or removed without specific written authorization by the utilities general manager.

8. Approved backflow assemblies shall be protected, when necessary, from extreme weather or site condition that could cause physical damage to or malfunction of the backflow assembly.

C. Backflow Prevention Device Testing and Maintenance.

1. The owners of any premises on which, or on account of which, backflow prevention assemblies are installed, shall have the assemblies tested by a certified backflow prevention assembly tester licensed by the local health agency. Backflow prevention assemblies must be tested at least annually and immediately after installation, relocation or repair. The department may require a more frequent testing schedule if it is determined to be necessary by the utilities general manager. No device shall be placed back in service unless it is functioning as required. A report in a form acceptable to the city shall be filed with the utilities department each time a device is tested, relocated or repaired. These devices shall be serviced, overhauled or replaced whenever they are found to be defective and all costs of testing, repair and maintenance shall be borne by the water user.

2. The department will supply affected water users with a list of certified backflow assembly testers licensed by the local health agency to test backflow prevention assemblies. The department will notify affected customers by mail when annual testing of a device is needed and also supply users with the necessary forms which must be filled out each time a device is tested or repaired.

D. Backflow Prevention Assembly Removal.

1. Approval must be obtained from the utilities general manager before a backflow prevention assembly is removed, relocated or replaced.

a. Removal. The use of a device may be discontinued and the device removed from service upon presentation of sufficient evidence to the utilities general manager to verify that a hazard no longer exists or is not likely to be created in the future.

b. Relocation. An assembly may be relocated following confirmation by the general manager that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the device.

c. Repair. An assembly may be removed for repair, provided the water use is either discontinued until repair is completed and the device is returned to service, or the service connection is equipped with other backflow protection approved by the utilities general manager. A retest will be required following the repair of the assembly.

d. Replacement. An assembly may be removed and replaced provided the water use is discontinued until the replacement assembly is installed. All replacement assemblies must be approved by the utilities general manager and must be commensurate with the degree of hazard involved.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.261 Backflow prevention supervisor.

At each of the premises, where a determination has been made that backflow protection is necessary, a "backflow prevention supervisor" shall be designated by and at the expense of the water customer. Such backflow prevention supervisor shall be re-

sponsible for the monitoring of the backflow prevention assemblies and for avoidance of cross-connections. In the event of contamination or pollution of the drinking water system due to a cross-connection on the premises, the utilities general manager shall be promptly notified by the backflow prevention supervisor so that appropriate measures may be taken to overcome the contamination. The water customer shall inform the utilities general manager of the backflow prevention supervisor's identity, mailing address, email address and telephone number on an annual basis and whenever a change occurs.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.262 Administrative procedures.

A. Water Supply Survey.

1. The utilities general manager and his/her designee shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the utilities general manager upon request for review of possible cross-connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention assembly is necessary to protect the public water system, the required device must be installed before service will be granted.

2. The utilities general manager may require an on-premises inspection to evaluate cross-connection hazards. Any customer who cannot or will not allow an on premises inspection of their piping system shall be required to install the backflow prevention assembly the utilities general manager considers necessary.

3. The utilities general manager may require a reinspection for cross-connection hazards of any premises to which water is serviced by the department. Any customer who cannot or will not allow an on premises reinspection of their piping system shall be required to install, at the meter, the backflow prevention assembly the utilities general manager considers necessary.

B. Customer Notification—Device Installation.

1. The utilities general manager shall notify the water user of the survey findings, listing corrective action to be taken if required. A period of thirty (30) days shall be given to complete all corrective action required including installation of backflow prevention assemblies. The notice shall be in writing and shall also state that service to the water use may be terminated should the water user fail to take the required corrective actions within the allotted time period.

2. If the required corrective action is not taken within the 30-day period as provided in subsection (B)(1) above, the utilities general manager may terminate water service to the affected water user until the subject device is installed and tested with passing results.

C. Customer Notification—Testing and Maintenance.

1. The utilities general manager shall notify each affected water user when it is time for the backflow prevention assembly installed on their service connection to be tested and verified, by a certified assembly device tester, to be functioning correctly. Said notice shall be in writing and shall provide the water user thirty (30) days to have the device tested. The notice shall include the necessary form(s) to be completed and resubmitted to the department by the water user. The written notice shall also state that service to the water user may be terminated should the water user fail to take the required corrective actions within the allotted time period.

2. If the required action is not taken within the thirty-day period as provided in subsection (C)(1) above, the utilities general

manager may terminate water service to the affected water user until the subject device is tested with passing results.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.263 Water service termination.

A. General. When the department encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the utilities general manager shall institute the procedure for terminating the water service.

B. Basis for Termination. Conditions or water uses that create a basis of water service termination shall include, but are not limited to, the following items:

1. Refusal to install required backflow prevention assembly;

2. Refusal to test a backflow prevention assembly;

3. Refusal to repair a faulty backflow prevention assembly;

4. Refusal to replace a faulty backflow prevention assembly;

5. Removal and/or bypassing without prior approval of a backflow assembly where required;

6. Direct or indirect connection between the public water system and a sewer line;

7. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants;

8. Unprotected direct or indirect connection between the public water system and an auxiliary water system;

9. A situation which presents an immediate health hazard to the public water system;

10. Non-designation of a user's supervisor when required within a specific time period;

11. Non-submission of records of tests, repairs and maintenance to the department upon a second letter request of their submission; and

12. Non-payment of fees/charges incurred by the department in connection with the administration of the backflow prevention program.

13. Maintenance and utilization of backflow prevention device(s) which is/are not approved by the department.

C. Water Service Termination Procedures.

1. For conditions in subsection (B)(1), (2), (3), (4), (10), (11) or (12) of this section, the water service to a customer's premises shall be terminated after two written notices have been sent specifying the corrective action needed and the time period in which it must be done, if no action is taken within the allowed time period.

2. For conditions in subsection (B)(5), (6), (7), (8) or (9) of this section, the following steps shall be taken by the department:

a. Make reasonable effort to advise water user of intent to terminate water services;

b. Terminate water supply and lock service valve. The water service shall remain inactive until correction of violations has been approved by the utilities general manager and any charges due to the department have been paid by the water customer.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.264 Backflow prevention assembly charge.

Where backflow prevention assemblies must be maintained and tested, an administrative fee established by ordinance of city council or Authority to be billed per month per backflow prevention assembly shall be charged.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.265 Noncompliance.

A. Upon noncompliance by the water user following the notice pursuant to Section 13.03.260(C)(2) regarding the periodic testing of the backflow prevention assembly, the department shall have the option, at its sole discretion, of hiring a certified contractor to test the backflow prevention assembly, terminating water service, or pursuing any other available remedy. In addition to any available remedy, the department may charge and collect an administrative penalty in the amount of two hundred fifty dollars ($250.00) per assembly device in addition to any other amounts due from the customer including, but not limited to, costs associated with the testing, repair and/or replacement of the assembly device, any related equipment and city personnel time and resources connected to the necessary remedial actions. Nonpayment of such expenses and fee may result in termination of water service or additional administrative, legal, equitable or other remedies.

B. Upon noncompliance by the user following the thirty (30) days notice pursuant to Section 13.03.260(B)(1) regarding the installation of the required backflow prevention assembly, the department shall have the option, at its sole discretion, of installing or hiring a licensed contractor to install the approved assembly, terminating water service, or pursuing any other available remedy. In addition to any available remedy, the department may charge and collect an administrative penalty in the amount of two hundred fifty dollars ($250.00) per assembly device in addition to any other amounts due from the customer including, but not limited to, costs associated with the installation of the device and city personnel time and resources connected to the necessary remedial actions. Nonpayment of such fee and expenses may result in termination of water service or additional administrative, legal, equitable or other remedies.

C. Any water user whose water service has been terminated under the provisions set forth in subsection (A) or (B) above, shall have the service reconnected only upon proper installation, assembly and/or testing of the assembly device(s) and the payment of all outstanding penalties, fees and costs.

D. Any user who has been assessed administrative penalties and costs by the department as a result of noncompliance pursuant to the provisions contained in subsection A or B above, may appeal the assessment of administrative penalties and costs described pursuant to Sections 13.02.780 and 13.02.785.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.266—13.03.269 Reserved.

Article VII

Capital Facilities Expansion Fee and Fund

13.03.270 Intent and purpose.

The city council hereby declares that the fees required to be paid by this article are solely for the purpose of producing revenue. The continued increase in housing in the city, with the attendant increase in water, has created an urgent need to provide the necessary water facilities and the financing thereof.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.271 Water facilities expansion fee.

A. In addition to any other fees prescribed by this code, water facilities expansion fees shall be payable to the city for all new dwelling units and mobile home or trailer spaces which will make use of the water facilities of the city.

B. Every person constructing a dwelling in a different location or providing a new dwelling unit in a one-family or multifamily dwelling, dwelling group, apartment

hotel or mobile home or trailer providing trailer spaces in a mobile home or trailer park, shall pay a water facilities expansion fee in an amount established by city council or authority. Every person constructing a nonresidential, industrial or commercial building, moving an industrial or commercial building to a different location, providing a new industrial or commercial facility shall pay a water facilities expansion fee in an amount established by ordinance of the city council or authority. The water facilities expansion fee shall be paid prior to the issuance of the building permit for the subject unit or space.

C. The water expansion fee will be determined based on the fee in effect at the time of building or water service permit issuance for the expanding development.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.272—13.03.285 Reserved.

13.03.286 Policy.

It is the policy of the city council that the water service be operated as a utility, and that it shall be operated in a prudent manner with adequate reserves to meet emergencies, to replace and to upgrade parts of the system as needed.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.287 Funds established.

The following water funds are to be created and maintained:

1. Maintenance and operating fund. The water maintenance and operating fund is to be created and maintained for the purpose of paying for the expenses associated with the maintenance and operation of the water system. Such expenses are to include direct water treatment, distribution, and pumping costs, direct accounting and billing costs, and direct preventative and emergency water storage, pumping, treatment, and distribution system maintenance costs, as well as general and departmental overhead as defined in Section 13.01.010. The source of the money for this fund is to be water permit fees, interest earnings and water service charges. Refundable water deposits provided by property owners are accounted for within this fund, and the amount of such deposits shall not be reflected in the fund balance.

2. Water replacement fund. The water replacement fund is to be created and maintained for the purpose of paying for replacing and upgrading parts of the water system as they wear out, deteriorate or become obsolete. All items deemed to be replacement of existing facilities shall be paid for from this fund. The source of the money for this fund is to be through city council authorized transfers from the water maintenance and operating fund. Such transfers are to be authorized so that funds will be available to pay for future replacement of parts of the water system. The determination as to the amount of money to be held in this fund will be made by taking into consideration the estimated life and replacement cost of the various parts of the sewer system using the following formula:

The summation of the following:

(Replacement cost of water system facility additions) X (0.10) X (Age of water system facilities) ° (75 years)

3. Water capital fund. The water capital fund is to be created and maintained for the purpose of paying for new water facilities found necessary because of the development of the city. Such facilities could include, but are not limited to, pumping stations, water tanks, wells, treatment plants, imported water, transmission mains, meters, distribution system, booster stations, and any necessary equipment. An annual appropriation shall be made from this fund for general and department overhead. The

source of the money for this fund is to be water connection charges, interest earnings, water installation charges, property assessments, and government grants.

4. Water facilities expansion fund. The water facilities expansion fund is to be created and maintained for the purpose of paying for water facilities needed for the expansion of the city including, but not limited to, wells, treatment plants, booster stations, transmission mains, imported water, and other necessary appurtenances to properly expand the city's water system. The source of the money for this fund is to be the water facilities expansion fee collected pursuant to section 13.03.271.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.288 Appropriations.

Appropriations from the various funds provided for in this article shall be pursuant to authorization in the annual budget or by special action of the city council.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.289 Allocation of interest earnings.

Moneys in the water funds may be commingled with moneys in other funds for cash management and interest earnings purposes, but each water fund shall be credited with its pro rata share of all interest earnings based on the fund's average balance.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.290 Loans from water funds.

Loans between water funds or to other funds may only be made pursuant to authorization of the city council and shall be for a specific time period. During such time that moneys are on loan from any fund, interest shall be paid annually to the fund. The interest rate during this loan period shall be at least the average rate for the city's interest-bearing deposits during the loan duration. No loans shall be made from the maintenance and operating fund and the water replacement fund. Existing loans shall be brought into compliance with this section within five years.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.291 Allocation of personnel and equipment costs.

A. Personnel. The total number of employees in the water maintenance and operating budget shall be determined using the following formula:

(Total number actual hours proposed to be charged to the water maintenance and operating fund for permanent employees for the proposed operating budget) ° (2,080 hours)

Personnel costs will be charged on actual number of hours worked. Personnel costs include salaries and related benefits.

B. Equipment. The original purchase cost charged to the water capital fund shall be no more than its pro rata share of time used in water activities. The motor pool rental charges shall also be based on the actual hours used; the motor pool shall be responsible for the replacement of these capital items.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.292—13.03.300 Reserved

Article VIII

Water Wells

13.03.301 Purpose—Authority and implementation.

The purpose of this chapter is to provide minimum standards for construction, reconstruction, abandonment and destruction of all wells in order to protect underground water resources and provide safe water to persons within the city. Pursuant

to the authority cited in Section 13801(c) of the California Water Code, the Riverside County Health Department shall enforce the provisions of this chapter within its jurisdiction.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.302 Definitions.

Whenever in this chapter the following terms are used, they shall have the meanings respectively ascribed to them in this section:

"Abandoned wells and abandonment" applies to a well whose original or functional purpose and use has been discontinued for a period of one year and which has not been declared for reuse by the legal owner with the department, or a well in such a state of disrepair that it cannot be functional for its original purpose or any other function regulated under this chapter. Exploration holes shall be considered abandoned twenty-four (24) hours after construction and testing work has been completed.

"Agriculture well" means any well used to supply water for irrigation or other agricultural purposes, including so-called "stock wells."

"Annular seal" or "sanitary seal" means the approved material placed in the space between the well casing and the wall of the drilled hole (the annular space).

"Cathodic protection well" means any artificial excavation in excess of fifty (50) feet constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground, commonly referred to as "cathodic protection."

"Community water supply well" means any well which provides water for public water supply systems.

"Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease.

"Cross-connection" means any unprotected connection between any part of a water system used or intended to supply water for domestic purposes and any source or system containing water or other substances that are not or cannot be approved as safe, pure, wholesome and potable for human consumption.

"Department" means the city utilities department.

"Distribution system" includes the facilities, conduits or any other means used for the delivery of water from the source facilities to the customer's system.

"Exploration hole" means an uncased excavation for the purpose of immediately determining the existing geological and/or hydrological conditions at the site either by direct observation or other means.

"Individual domestic well" means any well used to supply water for domestic needs other than a public water supply system.

"Industrial well" means any well used primarily to supply water for industrial processes and may supply water intentionally or incidentally for domestic purposes.

"Lateral (horizontal) well" means a well drilled or constructed horizontally or at an angle with the horizon as contrasted with the common vertical well and does not include horizontal drains or "wells" constructed to remove subsurface water from hillside, cuts or fills.

"Monitoring well" means an artificial excavation by any method for the purpose of observing, monitoring or supplying the conditions of a water-bearing aquifer, such as fluctuations in groundwater levels, quality of groundwaters or the concentration of contaminants in underground waters.

"Person" means any individual, firm, corporation, association, for profit or non-

profit organization, trust, partnership, special district or governmental agency to the extent authorized by law.

"Pollution" means an alteration of water by waste to a degree which unreasonably affects such water for beneficial uses or facilities which serve such beneficial uses. "Pollution" may include "contamination."

"Public water system" means a system regardless of type of ownership for the provisions of piped water to the public for domestic use, if such system has at least five service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days of the year. A public water system includes:

1. Any collection, treatment, storage and distribution facilities which are used primarily in connection with such system and which are under control of the water supplier.

2. Any collection or pretreatment storage facilities which are used primarily in connection with such system but are not under control of the water supplier.

"Reconstruction" means certain work done to an existing well in order to restore its production, replace defective casing, seal off certain strata or surface water, or similar work, not to include the cleaning out of sediments, surging or maintenance to the pump or appurtenances where the integrity of the annular seal or water-bearing strata are not violated.

"Source facilities" includes wells, stream diversion works, infiltration galleries, springs, reservoirs, tanks, and all other facilities used in the production, treatment, disinfection, storage or delivery of water to the distribution system.

"Utilities general manager" means the general manager or his or her duly authorized representative.

"Water well" means any artificial excavation constructed by any method for the purpose of extracting water from or injecting water into the ground. This definition shall not include:

1. Oil and gas wells, or geothermal wells constructed under the jurisdiction of the California State Department of Conservation, except those wells converted to use as water wells; or

2. Wells used for the purpose of:

a. Dewatering excavation during construction; or

b. Stabilizing hillsides or earth embankments.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.303 Permit requirement.

A. No person or entity, as principal agent or employee, shall dig, drill, bore, drive, reconstruct or destroy a well that is to be, or has been, used to produce or inject water, a cathodic protection well, or a monitoring well without first filing a written application to do so with the department, and receiving and retaining a valid permit as provided in this section.

B. No person or entity shall engage in any activity subject to the jurisdiction of this chapter without first paying all applicable fees to the department of fire for each activity in the amounts set forth by resolution or ordinance of the city council.

C. Any person who shall commence any work for which a permit is required by this department without having obtained a permit therefor shall, if subsequently granted a permit, pay double the permit fee for such work; provided, however, that this provision shall not apply to emergency work when it shall be established in writing to the satisfaction of the utilities general manager that such work was urgently necessary and that it was not practical to obtain a permit before commencement of the work. In all cases in which emergency work is necessary, a permit shall be applied for within three

working days after commencement of the work. The applicant for a permit for any such emergency work shall, in any case, demonstrate that all work performed is in compliance with the technical standards of Section 13.03.310.

D. An application for a permit to construct a water well, monitoring well or cathodic protection well shall be submitted to the department on a form and in a manner prescribed by the department, and shall include the following information:

1. A plot plan showing the proposed well location with respect to the following items within a radius of five hundred (500) feet from the well:

a. Property lines, including ownership;

b. Sewage or waste disposal systems (including reserved waste disposal expansion areas) or works for carrying or containing sewage or waste;

c. All intermittent or perennial, natural or artificial bodies of water or watercourses;

d. The approximate drainage pattern of the property;

e. Other wells, including abandoned wells;

f. Access road(s) to the well site; and

g. Structures.

2. Location of the property with a vicinity map, including the legal description of the property (assessor's parcel map/tract map number).

3. The name and state license number of the general contractor (when applicable) and the C-57 license number of the person responsible for constructing the well.

4. The proposed well depth, including casing size and zones of perforations and strata to be sealed off, if such data can be reasonably projected.

5. The proposed use of the well.

6. Location of underground storage tank(s) within five hundred (500) feet of the proposed well.

7. Location and classification by visual inspection of any solid, liquid or hazardous waste disposal sites, to include municipal and individual package sewage treatment plants within two thousand (2,000) feet of the proposed well.

8. Where proposed work is reconstruction or destruction of a water well, monitoring well or cathodic protection well, provide the following information, if available:

a. Method of reconstruction or destruction of well;

b. Total depth;

c. Depth and type of casing used;

d. Depth of perforation;

e. Well log; and

f. Any other pertinent information.

9. Other information as may be deemed necessary for the department to determine if the underground waters will be adequately protected.

E. As a condition of a construction or reconstruction permit, any abandoned wells on the property shall be destroyed in accordance with standards provided in this chapter.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.304 Conditions of approval.

Permits shall be issued after compliance with the standards provided and incorporated by reference in this chapter. Plans shall be submitted to the department demonstrating compliance with such standards. Permits may include conditions and requirements found by the department to be reasonably necessary to accomplish the purpose of this chapter. Completion bonds, contractor's bonds, cash deposits or other adequate security may be required to insure that all projects are performed completely

and properly to protect the public's health and safety and the integrity of underground water resources.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.305 Conditions of denial.

Where the department determines that the standards of this chapter have not been met, it shall deny the application.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.306 Expiration or extension of permit.

A. Each permit issued pursuant to this chapter shall expire and become null and void if the work authorized thereby has not been completed within six months following the issuance of the permit.

B. Any permit issued pursuant to this chapter may be extended at the option of the department. Each individual extension granted by the department shall be for not longer than one hundred twenty (120) days. In no event shall the department grant an extension which would make the total term of the permit exceed one year. Application for extension shall be made on a form provided by the department. The application shall be accompanied by a fee in the amount set forth by ordinance or resolution of the city council.

C. Upon expiration of any permit issued pursuant hereto, no further work may be done in connection with construction, repair, reconstruction or abandonment of a well unless and until a new permit for such purpose is secured in accordance with the provisions of this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.307 Permit revocation or suspension.

A. A permit issued in this chapter may be revoked or suspended by the utilities general manager as hereinafter provided if he or she determines that a violation of this chapter exists, that written notice has been directed to the permittee specifying the violation, and that the permittee has failed or neglected to make the necessary adjustments within fifteen (15) days after receiving such notice.

B. A permit may be so revoked or suspended by the utilities general manager if he or she determines at a hearing held for such purpose that the person to whom any permit was issued pursuant to this chapter has obtained the same by fraud or misrepresentation.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.308 Hearings.

A. Any person whose application for a permit has been denied or whose permit has been suspended or revoked may request a hearing. The person shall file with the department a written petition requesting the hearing and setting forth a brief statement of the grounds for the request. The hearing officer shall be the city manager or his or her designee. At the time and place set for the hearing, the hearing officer shall give the petitioner and other interested persons adequate opportunity to present any facts pertinent to the matter at hand. The hearing officer may, when he or she deems it necessary, continue any hearing by setting a new time and place and by giving notice to the petitioner of such action.

B. At the close of the hearing, or within thirty (30) working days thereafter, the hearing officer shall order such disposition of the application or permit as he or she has determined to be proper, and shall, by postage prepaid, registered mail, notify the petitioner of his or her final determination.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.309 Licensing and registration of water well drillers and contractors.

No persons shall engage in any activity listed in Section 13.03.303 of this chapter

unless he or she is in compliance with the provisions in this section and possesses a valid C-57 license in accordance with the California Contractor's State License Law (Chapter 9, Division 3 of the Business and Professions Code), or possesses a license appropriate to the activity to be engaged in. Such person shall register annually with the department and pay the registration fee specified in city fee resolution or any successor resolution, prior to commencing any activity regulated by this chapter.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.310 Standards.

Standards for the construction, reconstruction, abandonment or destruction of wells shall be the standards recommended in the Bulletins of the California Department of Water Resources as follows: Bulletin No. 74-81, Chapter II, Water Wells, and Bulletin No. 7490 (Supplement to Bulletin 74-81), as these bulletins may be amended by the state from time to time. The content of such bulletins is incorporated by reference with the following additions or modifications:

Bulletin No. 74-90, Monitoring Well.

(1) Exploration holes for determining immediate geological or hydrological information relating to on-site sewage disposal systems, liquefaction studies, hazardous materials investigations or geotechnical investigations for construction purposes, such as foundation studies, are exempt from the monitoring well destruction standards of Part III Bulletin 74-90; provided, that a zone of low permeability over-lying sediments with water-bearing capabilities has not been penetrated. For the above-listed cases, the excavation or boring shall be backfilled with native soils immediately after the investigatory work has been completed. Where a zone of low permeability has been penetrated, the hole shall be abandoned as specified in Bulletin 74-90, Part III. When the excavation or boring is to be left open and unattended (such as at the end of a work shift), the person in charge of the construction shall take all necessary precautions to ensure that the excavation has not created a public health or safety hazard.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.311 Lateral (horizontal) well standards.

The location and design of lateral wells shall be in accordance with the standards recommended in the state of California, Department of Health Services' publication "Requirements for Use of Lateral Wells in Domestic Water Systems," as such publication may be amended by the state from time to time. The content of such publication is incorporated in this chapter by reference.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.312 Required inspection of well site.

A site inspection by the department is required prior to issuance of a permit for a well that is to be part of a public water system or other wells that possess a high potential for contamination as determined by the fire chief. In the event that the well is to serve a system under the direct jurisdiction of the state department of health services, then that agency may perform the site inspection and notify the fire chief of its approval or disapproval.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.313 Required inspections of wells.

A. A well inspection shall be requested of the department at least two working days in advance of the following activities:

1. For individual domestic wells, agricultural wells, cathodic protection wells and monitoring wells:

a. The filling of the annular space or conductor casing; and

b. Immediately after the installation of all surface equipment and (for individual domestic wells) after the well has been disinfected and purged.

2. For community wells:

a. All community water wells shall be inspected at the frequencies stated in subsection 1 of this section for individual domestic water wells. In addition, a site inspection prior to issuance of a permit is required in accordance with Section 13.03.303.

3. For all wells, any other operation or condition for which a special inspection is stipulated on the well permit.

4. For well destruction (all wells):

a. During the actual sealing of the well; and

b. Immediately after all well destruction work has been completed.

B. Upon failure to notify the department of the filling of the annular space, approved geophysical tests including sonic log and gamma ray log shall be conducted at the owner's expense to substantiate that an annular seal has been properly installed.

C. If the enforcement agency fails to appear at the well site at the time designated for sealing, the well may be sealed without the presence of the enforcement agency. However, the driller shall seal the well in accordance with the standards of this chapter and the permit in the absence of any inspection.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.314 Discharge of drilling fluids.

Drilling fluids and other drilling materials used in connection with cathodic protection, monitoring or water well construction shall not be allowed to discharge onto streets or into waterways, and shall not be allowed to discharge to the adjacent property unless a written agreement with the owner(s) of the adjacent property is obtained; provided, however, that such fluids and materials are cleaned up and removed within thirty (30) days after completion of the well drilling and there is no violation of waste discharge regulations. This section shall not operate to prohibit the surface discharge of contaminated groundwater, provided such discharge is carried out in compliance with a lawful order of a regional water quality board.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.315 General location of water wells.

A. It is unlawful for any person or entity to drill, dig, excavate or bore any water well at any location where sources of pollution or contamination are known to exist, have existed or otherwise substantial risk exists that water from that location may become contaminated or polluted even though the well may be properly constructed and maintained. Exceptions to the above include the following:

1. Extraction wells used for the purpose of extracting and treating water from a contaminated aquifer;

2. Wells from which water is to be treated to meet all state department of health standards and requirements; and

3. Wells from which water will be blended with other water sources resulting in water that meets all state department of health standards and requirements.

B. Every well shall be located an adequate distance from all potential sources of contamination and pollution as follows:

Source of Contamination and Pollution	Minimum Distance (in Feet)
Sewer	50
Watertight septic tank	100
Subsurface sewage leach line or leach field	100

Source of Contamination and Pollution	Minimum Distance (in Feet)
Cesspool or seepage pit	150
Animal or fowl enclosures	100
Any surface sewage disposal system discharging 2,000 gallons/day or more	200

C. Minimum distances from other sources of pollution or contamination shall be as determined by the department upon investigation and analysis of the probable risks involved. Where particularly adverse or special hazards are involved as determined by the health department, the foregoing distances may be increased or specially approved means of protection, particularly in the construction of the well, may be required as determined by the department.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.316 Well logs.

A. Any person who has drilled, dug, excavated or bored a wall subject to this chapter shall, within thirty (30) days after completion of the drilling, digging, excavation or boring of such well, furnish the department with a complete log of such well on a standard form provided by the state department of water resources. This log shall include depths of formations, character, size distribution (i.e., clay, sand, gravel, rocks and boulders) and color for all lithological units penetrated, the type of casing, pump test results when applicable, and any other data required by the department. The department may require inspection of the well log during any phase of the well's construction and where necessary to achieve the purposes of this chapter may require modification of the work as originally planned.

B. Well logs furnished pursuant to this chapter shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in making studies, provided that any report shall be made available to any person who obtains written authorization from the owner of the well.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.317 Water well surface construction features.

A. Check Valve. A check valve shall be provided on the pump discharge line adjacent to the pump for all water wells.

B. Sample Spigot. An unthreaded sample spigot shall be provided on the pump discharge line of any water well used as a public water supply adjacent to the pump and on the distribution side of the check valve.

C. Water Well Disinfection Pipe. All community water supply wells and individual domestic wells shall be provided with a pipe or other effective means through which chlorine or other approved disinfecting agents may be introduced directly into the well. The pipe shall be extended at least four inches above the finished grade and shall have a threaded or equivalently secured cap on it.

D. Water Well Flow Meter. A flow meter or other suitable measuring device shall be located at each source facility and shall accurately register the quantity of water delivered to the distribution system from all community water supply wells serving the public water supply system.

E. Air-Relief Vent. An air-relief vent, when required, shall terminate downward, shall be screened and otherwise shall be protected from the entrance of contaminants.

F. Backflow Prevention Assembly. Agricultural wells equipped with chemical

feeder devices for fertilizers, pesticides or other non-potable water treatment shall be furnished with an approved backflow prevention assembly or a sufficient air gap to ensure that a cross-connection with the well does not exist.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.318 Disinfection of water wells.

Every new, repaired or reconstructed community water supply well or individual domestic well, after completion of construction, repair or reconstruction, and before being placed in service, shall be thoroughly cleaned of all foreign substances. The well gravel used in packed wells, pipes, pump, pump column, and all well water contact equipment surfaces shall be disinfected by a department-approved method. The disinfectant shall remain in the well and upon all relevant surfaces for at least twenty-four (24) hours. Disinfection procedures shall be repeated until micro-biologically safe water is produced, as set forth in the California Code of Regulations, Title 22, Domestic Water Quality Monitoring.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.319 Water quality standards.

A. Water from all new, repaired and reconstructed community water supply wells shall be tested for and meet the standards for microbiological, general mineral, general physical, chemical and radiological quality in accordance with the California Code of Regulations, Title 22, Domestic Water Quality and Monitoring.

B. In addition to the microbiological standards required in Section 13.03.318 above, all individual domestic water wells shall be tested for and meet the nitrate, fluoride and total dissolved solids (TDS) standards in accordance with the California Code of Regulations, Title 22, Domestic Water Quality and Monitoring.

C. At the discretion of the utilities general manager, for the purpose of protecting the health and safety of the public, any new, repaired or reconstructed individual domestic water well or community well shall be tested for and must meet any or all additionally specified water quality standards in accordance with the California Code of Regulations, Title 22, Domestic Water Quality and Monitoring. Exceptions would be community well water to be either treated or blended with other water sources to meet state department of health services standards and requirements. Such treatment or blending must be approved by the state department of health services.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.320 Private well evaluations.

A. All individual domestic water wells for which the owner requests a department evaluation of water quality shall be tested for water quality standards for individual domestic water wells as provided for in Section 13.03.318 of this chapter. The department shall perform a well-site inspection and conduct the microbiological sampling portion of the evaluation. Any additional testing, including any pump test to determine the yield quantity of the well, shall be performed by state-certified individuals at the expense of others.

B. The department shall collect an evaluation service fee in accordance with City fee resolution or any successor resolution.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.321 Well abandonment.

A. If after thirty (30) days of abandonment the owner has not declared to the department a proposed reuse of the well per Section 13.03.323 and the well has been found by the department to be a hazard, whereby its continued existence is likely to cause damage to groundwater or a threat to

public health and safety, the department shall direct the owner to destroy the well in accordance with Section 13.03.310 of this chapter.

B. Upon removal of the pump, the casing shall be provided with a threaded or equivalently secured watertight cap. The well shall be maintained so that it will not be a hazard to public health and safety until such time as it is properly destroyed.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.322 Public nuisance abatement.

Where an abandoned well has been identified and the owner fails to comply with the department's order to destroy the well, such well may be declared a public nuisance pursuant to Government Code Section 50231, and thereafter abated pursuant to Title 5, Division 1, Part 1, Chapter 1, Article 9 of the California Government Code. Where abatement is undertaken at the expense of the city, such cost, including reasonable attorney's fees, shall constitute a special assessment against the parcel and shall be added to the next regular tax bill as enumerated under Government Code Section 50244 et seq.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.323 Declaration of proposed reuse.

Where a well is unused or its disuse is anticipated, the owner may apply to the department, in writing, stating an intention to use the well again for its original or other approved purpose. The department shall review such a declaration and may grant an exemption from certain of the provisions of Section 13.03.324 of this chapter, provided no undue hazard to public health or safety is created by the continued existence of the well. Thereafter, an amended declaration shall be filed annually with the department. The original or subsequent exemption may be terminated for cause by the department at any time.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.324 Administrative variance.

Subject to approval by the state department of health services, the utilities general manager may grant an administrative variance of the provisions of this chapter where documentary evidence establishes that a modification of the standards as provided herein will not endanger the general public's health and safety and strict compliance would be unreasonable in view of all the circumstances.
(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.325 Violations and penalties.

A. The utilities general manager, or his or her designee, may at any and all reasonable times enter any and all places, property, enclosures and structures for the purpose of conducting examinations and investigations to determine whether all provisions of this chapter are being complied with, provided however, that the utilities general manager or designee will seek to obtain permission before entering any occupied residence, unless there exists an emergency or condition immediately threatening the public health, safety or welfare.

B. It is unlawful for any person, firm, corporation or association of persons to violate any provision of this chapter or to violate the provisions of any permit granted pursuant to this chapter. Any person, firm, corporation or association of persons violating any provision of this chapter or of the provisions of any permit granted pursuant to this chapter shall be deemed guilty of an infraction or misdemeanor as herein specified. Such person, firm, or corporation or association of persons shall be deemed guilty of a separate offense for each and every day

or portion thereof during which any violation of any of the provisions of this chapter or the provisions of any permit granted pursuant to this chapter is committed, continued or permitted.

C. Any person, firm, corporation or association of persons so convicted shall be guilty of an infraction offense and punished by a fine not exceeding one hundred dollars ($100.00) for a first violation and guilty of an infraction offense and punished by a fine not exceeding two hundred dollars ($200.00) for a second violation at the same site. The third and any additional violations on the same site shall constitute a misdemeanor offense and shall be punishable by a fine not exceeding one thousand dollars ($1,000.00) or six months in jail, or both. Notwithstanding the above, a first offense may be charged and prosecuted as a misdemeanor, or may be enforced through other means, administrative or criminal, available to the city. Payment of any penalty in this chapter shall not relieve a person, firm, corporation or association of persons from the responsibility for correcting the violation.

D. Anything done, maintained or suffered in violation of any of the provisions of this chapter is a public nuisance dangerous to the health and safety of the public and may be enjoined or summarily abated in the manner provided by law. Every public officer or body lawfully empowered to do so shall abate the nuisance immediately. The costs of summary abatement may become a lien against the property on which the nuisance is maintained and a personal obligation against the property owner, in accordance with Government Code section 38773.1 or 38773.5

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.326 Conflict with existing laws.

The provisions of any existing ordinance or state or federal law affording greater protection to the public health or safety shall prevail within this jurisdiction over the provisions of this chapter and the standards adopted or incorporated by reference in this chapter.

(Ord. No. 1057, § 3(Exh. C), 10-23-13)

13.03.327—13.03.340 Reserved.

Attachment B. Coachella Valley Association of Governments Landscape Ordinance

ORDINANCE NO. 1302.5

AN ORDINANCE OF THE COACHELLA VALLEY WATER DISTRICT ESTABLISHING LANDSCAPE AND IRRIGATION SYSTEM DESIGN CRITERIA

Sections:

0.00.010	Purpose and Intent
0.00.020	Definitions
0.00.030	Provisions for New or Rehabilitated Landscapes
0.00.040	Other Provisions
0.00.050	Review and Program Monitoring Fees
0.00.060	Appeals
0.00.070	Penalties
0.00.080	Hearing Regarding Penalties
0.00.090	Appeal of Penalties

0.00.010 Purpose and Intent

A. The California State Legislature has found:

1. The waters of the state are of limited supply and are subject to ever increasing demands;
2. The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future users;
3. It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
4. Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;
5. Landscape design, installation, maintenance and management can and shall be water efficient; and
6. Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste and unreasonable method of use.

B. Consistent with these legislative findings, the purpose of these criteria is to:

1. Promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;
2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires

cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

3. Establish provisions for water management practices and water waste prevention for existing landscapes;

4. Use water efficiently without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use to the lowest practical amount; and

5. Promote the benefits of consistent landscape criteria with neighboring local and regional agencies.

C. It is also the purpose of these criteria to implement the requirements of the California Code of Regulations Title 23. Waters Division 2. Department of Water Resources Chapter 2.7. Model Water Efficient Landscape Ordinance, and State of California Water Conservation in Landscaping Act. Authority cited: Section 65593, Government Code, Reference: Sections 65591, 65593, 65596 Government Code.

D. It is the intent of these criteria to promote water conservation through climate-appropriate plant material and efficient irrigation systems, and to create a "Lush and Efficient" landscape theme through enhancing and improving the physical and natural environment.

E. Applicability

1. These criteria shall apply to all of the following landscape projects:

   a. New construction and rehabilitated landscapes for public agency projects and private development projects requiring a building or landscape permit, plan check or design review;

   b. New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects requiring a building or landscape permit, plan check or design review;

   c. New construction and rehabilitated landscapes which are homeowner-provided and/or homeowner-hired in homeowner-occupied single family and multi-family residential projects with a total project landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review; and

   d. Existing landscapes limited to section 0.00.040 (B).

   e. Any residential project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix H.

2. These criteria do not apply to:

   a. Registered local, state or federal historical sites;

   b. Ecological restoration projects that do not require a permanent irrigation system;

c. Mined-land reclamation projects that do not require a permanent irrigation system; or

d. Plant collections, as part of botanical gardens and arboretums open to the public.

0.00.020 Definitions

The words used in this section have the meanings set forth below:

ANTIDRAIN VALVE or CHECK VALVE - A valve located under/in a sprinkler head to hold water in the system to eliminate drainage from the lower elevation sprinkler heads.

APPLICATION RATE - The depth of water applied to a given area, usually measured in inches per hour. Also known as precipitation rate (sprinklers) or emission rate (drippers/microsprayers) in gallons per hour.

APPLIED WATER - The portion of water supplied by the irrigation system to the landscape.

AUTOMATIC CONTROLLER - An electronic or solid-state timer capable of operating valve stations to set the days, time and length of time of a water application.

BACKFLOW PREVENTION DEVICE - A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

BENEFICIAL USE - Water used for landscape evapotranspiration.

BILLING UNITS - Units of water (100 cubic feet = 1 billing unit = 748 gallons = 1 CCF) for billing purposes. To convert gallons per year to 100 cubic feet per year, divide gallons per year by 748. (748 gallons = 100 cubic feet).

CONVERSION FACTOR (0.62) - A number that converts the Maximum Applied Water Allowance from acre-inches per acre to gallons per square foot. The conversion factor is calculated as follows:

(325,851 gallons/43,560 square feet)/12 inches	= (0.62)
325,851 gallons	= one acre-foot
43,560 square feet	= one acre
12 inches	= one foot

DESERT LANDSCAPE - A desert landscape using native plants spaced to look like a native habitat.

DISTRIBUTION UNIFORMITY - A measure of how evenly sprinklers apply water. The low-quarter measurement method (DULQ) utilized in the irrigation audit procedure is utilized for the purposes of these criteria. These criteria assume an attainable performance level of 75% DULQ for spray heads, 80% DULQ for rotor heads and 85% DULQ for recreational turf grass rotor heads.

DISTRICT – Coachella Valley Water District.

DRIP IRRIGATION - A method of irrigation where the water is applied slowly at the base of plants without watering the open space between plants.

ECOLOGICAL RESTORATION PROJECT - A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

EFFECTIVE PRECIPITATION or USABLE RAINFALL - The portion of total natural precipitation that is used by the plants, usually assumed to be three inches annually. Precipitation or rainfall is not considered a reliable source of water in the desert.

ELECTRONIC CONTROLLERS - Time clocks that have the capabilities of multiprogramming, water budgeting and multiple start times.

EMISSION UNIFORMITY - A measure of how evenly drip and microspray emitters apply water. The low-quarter measurement method (EULQ) utilized in the landscape irrigation evaluation procedure is utilized for the purposes of these criteria. These criteria assume 90% EULQ for drippers, microsprays and pressure compensating bubblers.

EMITTER - Drip irrigation fittings that deliver water slowly from the watering system to the soil.

ESTABLISHED LANDSCAPE - The point at which new plants in the landscape have developed roots into the soil adjacent to the root ball.

ESTABLISHMENT PERIOD - The first year after installing the plant in the landscape.

ESTIMATED TOTAL WATER USE (By hydrozone) - The portion of the estimated annual total applied water use that is derived from applied water to a specified hydrozone.

ESTIMATED ANNUAL TOTAL APPLIED WATER USE (Total of all hydrozones) - The annual total amount of water estimated to be needed by all hydrozones to keep the plants and water features in the landscaped area healthy and visually pleasing. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the size and type of water feature, the types of plants, and the efficiency of the irrigation system. The estimated annual total applied water use shall not exceed the Maximum Applied Water Allowance (MAWA).

EVAPOTRANSPIRATION or ET - The quantity of water evaporated from adjacent soil surfaces and transpired by plants expressed in inches during a specific time.

ET ADJUSTMENT FACTOR - A factor of 0.45 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

FINISHED GRADE – Grade height after surface mulch covering has been installed.

FLOW RATE - The rate at which water flows through pipes, valves and meters (gallons per minute or cubic feet per second).

HARDSCAPE - Concrete or asphalt areas including streets, parking lots, sidewalks, driveways, patios and decks.

HEAD-TO-HEAD COVERAGE - One hundred percent sprinkler coverage of the area to be irrigated, with maximum practical uniformity.

HIGH FLOW CHECK VALVE - A valve located under/in a sprinkler head to stop the flow of water if the spray head is broken or missing.

HYDROZONE - A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation (once established) is a non-irrigated hydrozone.

INFILTRATION RATE - The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

IRRIGATION EFFICIENCY - The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these regulations is 0.75 or 75 percent and .90 or 90 percent for drip systems.

LANDSCAPE IRRIGATION AUDIT - A process to perform site inspections, evaluate irrigation systems and develop efficient irrigation schedules.

LANDSCAPED AREA - The planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance Calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

LATERAL LINE - The water delivery pipeline that supplies water to the emitters sprinklers from a valve.

LOCAL AGENCY – A city, county, or water purveyor responsible for adopting and implementing the ordinance. The local agency is also responsible for enforcement of the ordinance, including, but not limited to, approval of a design review, permit, plan check, or inspection of a project.

MAIN LINE - The pressurized pipeline that delivers water from the water source to a valve or outlet.

MAXIMUM APPLIED WATER ALLOWANCE (MAWA) - For design purposes, the upper limit of annual applied water for the established landscape area as specified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 492.4. It is based upon the area's reference evapotranspiration, ET adjustment factor, and the size of the landscaped area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance . Special Landscape Areas, include recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1. MAWA = (ETo)(0.62)[(ETAF x LA) + ((1-ETAF) X SLA)].

MICROIRRIGATION - See drip irrigation.

MULCH - Any organic materials such as leaves, bark, straw or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.

NATIVE PLANTS - Native plants are low water using plants that are:
1) indigenous to the Coachella Valley and lower Colorado Desert region of California and Arizona, 2) native to the southwestern United States and northern Mexico or 3) native to other desert regions of the world, but adapted to the Coachella Valley.

NATURAL GRADE – Grade height of native soil before application of surface mulch.

NON-POTABLE WATER – Canal water or treated or recycled wastewater of a quality suitable for non-potable uses such as landscape irrigation. Non-potable water is not for human consumption.

OPERATING PRESSURE - The pressure at which an irrigation system's sprinklers, bubblers, drippers or microsprays are designed to operate, usually indicated at the base of an irrigation head.

OVERHEAD SPRINKLER IRRIGATION STATIONS - Sprinklers with high flow rates (spray heads, impulse sprinklers, gear rotors, etc.) that are utilized to apply water through the air to large irrigated areas.

OVERSPRAY - The water which is delivered beyond the landscaped area onto pavements, walks, structures or other non-landscape areas. Also known as hardscape applications.

PLANT FACTOR - A factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these criteria, the average plant factor of very low water using plants ranges from 0.01 to 0.10, for low water using plants the range is 0.10 to 0.30, for moderate

water using plants the range is 0.40 to 0.60, and for high water using plants, the range is 0.70 to 0.90. Reference: Water Use Classifications of Landscape Species IV (WUCOLS IV).

PRESSURE COMPENSATING (PC) BUBBLER – An emission device that allows the output of water to remain constant regardless of input pressure. Typical flow rates for this type of bubbler range between 0.25 gpm to 2.0 gpm.

PRESSURE COMPENSATING SCREENS/DEVICES - Small screens/devices inserted in place of standard screens/devices that are used in sprinkler heads for radius and high pressure control.

QUALIFIED PROFESSIONAL - A person who has been certified by their professional organization or a person who has demonstrated knowledge and is locally recognized as qualified among landscape architects due to longtime experience.

RAIN-SENSING DEVICE - A system which automatically shuts off the irrigation system when it rains.

RECYCLED WATER/RECLAIMED WATER - Treated or recycled wastewater of a quality suitable for nonpotable uses such as landscape irrigation. Recycled water is not for human consumption.

RECORD DRAWING or AS-BUILTS - A set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

RECREATIONAL AREA - Areas, excluding private single family residential lots, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.

R

REFERENCE EVAPOTRANSPIRATION or ETo - A standard measurement of the environmental parameters which affect the water use of plants, using cool season grass as a reference. ETo is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of cool-season grass that is well watered. Reference evapotranspiration is used as a basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. For purposes of these criteria, CVWD Drawing No. 29523 will be used for ETo zones.

REHABILITATED LANDSCAPE - Any re-landscaping project in which the choice of new plant material and/or new irrigation system components is such that the calculation of the site's estimated water use will be significantly changed. The new estimated water use calculation must not exceed the Maximum Applied

Water Allowance (MAWA) calculated for the site using a 0.45 ET adjustment factor.

RIPARIAN PLANTS - Riparian plants are high water using and water-loving plants that are found growing naturally along flowing rivers and lake shores. They may also be native to wet swampy areas with high water tables or poor drainage.

RUNOFF - Irrigation water which is not absorbed by the soil or landscape to which it is applied and which flows from the planted area.

SERVICE LINE - The pressurized pipeline that delivers water from the water source to the water meter.

SMART CONTROLLER – Weather-based or soil moisture-based irrigation controls that monitor and use information about environmental conditions for a specific location and landscape (such as soil moisture, rain, wind, the plants' evaporation and transpiration rates and, in some cases, plant type and more) to automatically control when to water and when not to, providing exactly the right amount of water to maintain lush, healthy growing conditions.

SOIL MOISTURE-SENSING DEVICE - A device that measures the amount of water in the soil.

SOIL TEXTURE - The classification of soil based on the percentage of sand, silt and clay in the soil.

SPECIAL LANDSCAPE AREA (SLA) – An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, water features using recycled water or water features using non-potable canal water created solely to act as an irrigation reservoir.

SPRINKLER HEAD - A device which sprays water through a nozzle.

STATIC WATER PRESSURE - The pipeline or municipal water supply pressure when water is not flowing.

STATION - An area served by one valve or by a set of valves that operate simultaneously.

TURF - A surface of earth containing mowed grass with roots.

VALVE - A device used to control the flow of water in the irrigation system.

WATER FEATURE - Any water applied to the landscape for nonirrigation, decorative purposes. Fountains, streams, ponds and lakes are considered water features. Water features use more water than efficiently irrigated turf grass and are assigned a plant factor of 1.1 for a stationary body of water and 1.2 for a moving body of water.

WATER SYSTEM - The network of piping, valves and irrigation heads.

WUCOLS IV - Water Use Classifications of Landscape Species IV

0.00.030 Provisions for new or rehabilitated landscapes

A. Submittal and Approval of a Landscape Documentation Package

1. Prior to construction, the project applicant shall:

   a. Submit two copies of a Landscape Documentation Package to the Coachella Valley Water District (District) that conform to this chapter. No water meter will be issued until the District reviews and approves the Landscape Documentation Package.

   b. Submit one copy of the Landscape Documentation Package to the local agency (city/county).

2. Upon receipt of the Landscape Documentation Package, the District shall:

   a. Review the Landscape Documentation Package.

   b. Approve or deny the Landscape Documentation Package.

3. Upon approval of the Landscape Documentation Package, the District will:

   a. Sign and date the approved plans and return them to the project applicant.

   b. Submit a copy of the project's Water Efficient Landscape Worksheet (Appendix B) to the local agency.

4. Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:

   a. Receive an approval of the landscape design review or plan check.

   b. Finalize the Certificate of Completion, including recording the date of the approval.

   c. File the Certificate of Completion with the District and the local agency, and provide a copy to the property owner or designee.

   d. Submit a copy of the approved Landscape Documentation Package, along with the record drawings and any other information, to the property owner or designee.

5. Each Landscape Documentation Package shall include the following elements:

   a. A completed Landscape Documentation Package Checklist (Appendix A), which includes the date, project applicant, and project address information. This checklist serves to verify that the elements of the Landscape Documentation Package have been completed.

   b. Total landscaped area (square feet)

   c. Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed, etc.)

   d. Water Efficient Landscape Worksheet (Appendix B), which may be imbedded in the plan sheets of the Landscape Documentation Package, and include the following:

      i. Hydrozone Information Table (reference Appendix C)

   e. Water Budget Calculations (reference Appendix D) that adhere to the following requirements:

      i. The plant factor used shall be from WUCOLS. The plant factors ranges from 0 to 0.3 for the low use plants, from 0.4 to 0.6 for the moderate use plants, from 0.7 to 1.0 for the high use plants and 1.1 to 1.2 for water features.

      ii. All water features shall be included in the 1.1 to 1.2 hydrozone and temporary irrigated areas shall be included in the low water use hydrozone. For the calculation of the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use, a project applicant shall use ETo values from the Reference Evapotranspiration Table, Appendix C. For geographic areas not covered in Appendix C, use data from other cities located nearby in the same reference evapotranspiration zone.

   f. Landscape Design Plan

   g. Irrigation Design Plan

   h. Grading Design Plan (as required)

   i. Soil Management Report (as required)

   j All plans must contain a signature block for both the local agency and the District.

6. The Landscape Documentation Package shall be submitted by the following procedure:

   a. The applicant or applicant's representative may bring, send or ship copies of the Landscape Documentation Package to the District, and the local agency, as applicable. Appropriate fees must accompany the Landscape Documentation Package.

b. The plans will normally be returned to the applicant or local agency with comments by the District (Water Management Department) within ten working days of receipt.

c. After noted corrections have been made, the applicant shall re-submit the Landscape Documentation Package to the District for approval and signing by the Water Management Department and Development Services Department for the District.

d. Signed plans will be held at the District's Palm Desert office for applicant pick up or sent by certified shipping at the applicant's request and expense.

e. For direct communication:

Telephone No.:	(760) 398-2651 Water Management Department
Mailing Address:	Coachella Valley Water District Attention: Water Management Department Post Office Box 1058 Coachella, California 92236
Hand Delivery or Shipping Address:	Coachella Valley Water District Attention: Water Management Department 85-995 Avenue 52 Coachella, California 92236
Hand Delivery or Shipping Address:	Coachella Valley Water District Attention: Water Management Department 75-525 Hovley Lane East Palm Desert, California 92211

f. The District will inspect the landscaped area(s) for conformance with the approved Landscape Documentation Package. Landscaping that does not conform to the approved Landscape Documentation Package is subject to penalties as provided in Section 0.00.070.

7. Upon review and approval of the Landscape Documentation Package by the District, the project applicant shall:

a. Submit a copy of the District-approved Landscape Documentation Package and Water Efficient Landscape Worksheet to the local agency.

b. Provide the property owner or site manager a copy of the District-approved Landscape Documentation Package, in addition to the record drawings and any other information normally forwarded to the property owner or site manager.

8. Upon review and approval of the Landscape Documentation Package by the local agency, the project applicant shall:

   a. Record the date of the permit on the Certificate of Completion.

   b. Provide the property owner or designee a copy of the local-agency approved Landscape Documentation Package, in addition to the record drawings, and any other information normally forwarded to the property owner or designee.

B. Landscape Design Plan

A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation package. For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project.

1. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To encourage the efficient use of water the following is highly recommended:

   a. Protection and preservation of native species and natural vegetation;

   b. Selection of water-conserving plant and turf species;

   c. Selection of trees based on applicable local tree ordinances or tree shading guidelines; and

   d. Selection of plants from local and regional landscape program plant lists.

2. Specifications for Landscape Design Plan
   The landscape design plan shall be drawn on 36-inch by 24-inch project base sheets at a scale that accurately and clearly identifies the following:

   a. Tract name, tract number or parcel map number on cover sheet.

   b. Proposed planting areas.

   c. Plant material location and size.

   d. Plant botanical and common names.

   e. Plant spacing, where applicable.

   f. Natural features including, but not limited to, rock outcroppings, and existing trees and shrubs that will remain incorporated into the new landscape.

   g. Vicinity map showing site location on top sheet or on cover sheet.

   h. Title block on each sheet with the name and address of the project, and the name and address of the professional design company with its signed professional stamp, if applicable.

i. Reserve two 6-inch by 3-inch spaces for a) the local agency signature block and b) a District signature block in lower right corner of the cover sheet and on all of the landscape, irrigation design/detail/specification sheets. The District signature block can be found on the Professional Landscaper section of the Conservation page at cvwd.org.

j. Show plan scale and north arrow on design sheets.

k. Show graphic scale on all design sheets.

l. Show all property lines and street names.

m. Show all paved areas, such as driveways, walkways and streets.

n. Show all pools, ponds, lakes, fountains, water features, fences and retaining walls.

o. Show locations of all overhead and underground utilities within project area.

p. Provide an index map, as necessary, showing the overall project, including all 1/4 and 1/16 section lines and section numbers.

q. Show this note on each design sheet stating, "No permanent structures or trees within CVWD and/or USBR easements. CVWD will not be responsible for damage or replacement of any surface improvements, including but not limited to, decorative concrete, landscaping, curb, gutter, sidewalks, planters, gates and related improvements installed within CVWD and/or USBR easements."

In addition, no trees shall be installed within 15' of a CVWD and/or USBR pipeline. Surface improvements may be installed within CVWD and/or USBR easements only upon the prior consent of CVWD, which consent may be granted or denied at CVWD's sole discretion. In the event of such consent, then a Non-interference review letter (NIRL) may apply per Section 3.4 of CVWD's Development Design Manual.

r. Show Maximum Applied Water Allowance (MAWA) for the proposed project. (See formula in Appendix C and Sample MAWA, Appendix D.)

s. Show total landscaped area in square feet. Separate area square footages by hydrozone. Show the total percentage area of each hydrozone. Include total area of all water features as separate hydrozones of still or moving water. Show Estimated Total Water Use, for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.

t. Show Total Estimated Total Water Use for each major plant group hydrozone and water feature hydrozone expressed in either seasonal (turf grass) or annual (trees, shrubs, groundcovers and water features) billing units.

u. Show Total Estimated Water Use (ETWU) for the entire project. (Formula in Appendix C and on Sample Calculation Estimated Water Use, Appendix D.) The Total Estimated Use shall not exceed the Maximum Applied Water Allowance (MAWA).

The Estimated Total Water Use (ETWU) for a phase within a tract may exceed the Maximum Applied Water Allowance for that phase so long as the ETWU does not exceed the MAWA within the overall tract. In the event this occurs calculations showing all phase totals should be imbedded within each plan submission for the tract.

v. Designate recreational areas and recreational turf areas.

w. When model homes are included, show the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (by hydrozone with totals) for each model unit.

3. Landscape Design Criteria

a. The landscape design must be carefully planned and take into account the intended function of the project.

b. Plants' appropriateness shall be selected based upon their adaptability to the climatic, geologic and topographical conditions of the site.

c. Selection of water-efficient and low-maintenance plant material is required.

d. All planted areas must be a minimum of one inch below adjacent hardscapes to eliminate runoff and overflow.

e. Long, narrow or irregularly shaped turf areas shall not be designed because of the difficulty in irrigating uniformly without overspray onto hardscaped areas, streets and sidewalks. Areas less than 10 feet in width shall not be designed with turf. Turf will be allowed in these areas only if irrigation design reflects the use of subsurface irrigation or a surface flow/wick irrigation system.

f. Turf areas irrigated with spray/rotor systems must be set back at least 24 inches from curbs, driveways, sidewalks or any other area that may result in runoff of water onto streets. An undulating landscape buffer area created by the setback shall be designed with rocks, cobble or decomposed granite and/or can be landscaped with drip irrigated shrubs/accents or covered with a suitable ground cover.

g. Plants having similar water use shall be grouped together in distinct hydrozones.

h. The use of a soil covering mulch or a mineral groundcover of a minimum three-inch depth to reduce soil surface evaporation is required around trees, shrubs and on nonirrigated areas. The use of

boulders and cobble shall be considered to reduce the total vegetation area.

i. Annual color plantings shall be used only in areas of high visual impact and must be irrigated with drip, microirrigation or other systems with efficiencies of 90 percent or greater. Otherwise, drip irrigated, perennial plantings should be the primary source of color.

j. Native desert plants shall be specified to be planted in a shallow, wide, rough hole two times the root ball width. The root ball will be set on either undisturbed native soil or a firmed native soil. The root ball top will be set even with the finished surface grade or above grade if the soil is poorly drained. The hole must be backfilled with native soil. Extra soil may be used to mound up around plants where the soil is poorly drained.

k. Landscaping must not obstruct or interfere with street signs, lights or road/walkway visibility. Screening may be provided by walls, berms or plantings.

l. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

m. Use locally approved plant materials lists in the selection of appropriate plants.

n. Planter islands in parking lots with canopy trees shall be sized to meet local land use agency requirements.

o. A landscape plan in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291 (a) and (b). Avoid fire-prone plant material and highly flammable mulches.

p. The use of invasive and/or noxious plant species is prohibited.

q. The architectural guidelines of a common interest development, which includes community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group (California Civil Code, Section 1353.8).

D. Grading Design Plan

1. For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.

2. The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including;

a. Height of graded slopes;

b. Drainage patterns;

c. Pad elevations;

d. Finish grade; and

e. Stormwater retention improvements, if applicable.

3. To prevent excessive erosion and runoff, it is highly recommended, and per local agency requirements, that project applicants:

   a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;

   b. Avoid disruption of natural drainage patterns and undisturbed soil; and

   c. Avoid soil compaction in landscape areas.

4. The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading plan."

5. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

6. Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff must be confirmed during an irrigation audit.

7. All grading must retain normal stormwater runoff and provide for an area of containment. All irrigation water must be retained within property lines and not allowed to flow into public streets or public rights-of-way. Where appropriate, a simulated dry creek bed may be used to convey storm drainage into retention areas. A drywell shall be installed if the retention basin is to be used as a recreational area.

8. Mounded or sloped planting areas that contribute to runoff onto hardscape are prohibited. Sloped planting areas above a hardscaped area shall be avoided unless there is a drainage swale at toe of slope to direct runoff away from hardscape.

9. Median islands must be graded to prevent stormwater and excess irrigation runoff.

E. Irrigation Design Plan

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufactures recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan

meeting the following criteria shall be submitted as part of the Landscape Documentation Package.

Separate landscape water meters shall be installed for all projects except single family homes with a landscape area less than 5,000 square feet. Landscape meters for single family homes with a landscape area over 5,000 square feet may be served by a permanent service connection provided by the District or be a privately owned submeter installed at the irrigation point of connection on the customer service line. When irrigation water is from a well, the well shall be metered. The irrigation design plan shall be drawn on project base sheets. It should be separate from, but use the same format as, the landscape design plan. The irrigation system specifications shall accurately and clearly identify the following:

1. Specifications for Irrigation Design.
    a. Control valves, manufacturer's model number, size and location.
    b. Irrigation head manufacturer's model number, radius, operating pressure, gallons per minute/gallons per hour (gpm/gph) and location.
    c. Piping type, size and location.
    d. Point of connection or source of water and static water pressure.
    e. Meter location and size (where applicable).
    f. Pump station location and pumping capacity (where applicable).
    g. Power supply/electrical access and location.
    h. Plan scale and north arrow on all sheets.
    i. Graphic scaling on all irrigation design sheets.
    j. Irrigation installation details and notes/specifications.
    k. The irrigation system shall be automatic, constructed to discourage vandalism and simple to maintain.
    l. All equipment shall be of proven design with local service available.
    m. Show location, station number, size, and design gpm of each valve on plan. Control valves shall be rated at 200 psi.
    n. Visible sprinklers near hardscape shall be of pop-up design.
    o. All heads should have a minimum number of wearing pieces with an extended life cycle.
    p. Sprinklers, drippers, valves, etc., must be operated within manufacturer's specifications.
    q. Manual shut-off valves shall be fully ported ball valves or butterfly valves. Manual shut-off valves are required upstream of automatic valve manifolds.

r. Master valves shall be metal, located as close to the point of connection as possible, and be metal piped between the master valve and the water meter.

s. High flow sensors that detect and report high flow conditions created by system damage or malfunction shall be specified for all projects where a dedicated landscape irrigation meter is required.

t. The following statement "I have complied with the criteria of the ordinance and have applied them accordingly for the efficient use of water in the irrigation design plan;" and

u. The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, landscape contractor or any other person authorized to design an irrigation system.

2. Specifications for Irrigation Efficiency

The minimum irrigation efficiency shall be 0.75 (75%). Greater irrigation efficiencies are expected from well-designed and maintained systems. The following are required:

a. Design spray head and rotor head stations with consideration for worst wind conditions. Close spacing and low-angle nozzles are required in high and frequent wind areas (ETo Zone No. 5).

b. Spacing of sprinkler heads shall not exceed manufacturer's maximum recommendations for proper coverage. The plan design shall show a minimum of 0.75 (75%) distribution uniformity.

c. Only irrigation heads with matched precipitation rates shall be circuited on the same valve.

d. Valve circuiting shall be designed to be consistent with hydrozones.

e. Individual hydrozones that mix plants that are moderate and low water use may be allowed if:

(i) plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or

(ii) the plant factor of the higher water using plant is used for the calculations.

f. Individual hydrozones that mix high and low water use plants shall not be permitted.

g. On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table. This table can assist with pre-inspection and final inspection of the irrigation system, and programming the controller.

3. Irrigation System Criteria

a. Reduced pressure backflow prevention devices shall be installed behind meter at curb by the District.

b. Show location, station number, size and design gpm of each valve on plan.

c. Smart Controllers shall be specified for all projects. This includes climate based or sensor based controllers, which can automatically adjust for local weather and/or site conditions.

d. High flow check valves shall be installed in or under all heads adjacent to street curbing, parking lots and where damage could occur to property due to flooding, unless controllers with flow sensor capabilities are specified that can automatically shut off individual control valves when excess flow is detected.

e. Pressure compensating screens/devices shall be specified on all spray heads to reduce radius as needed to prevent overthrow onto hardscape and/or to control high pressure misting.

f. All irrigation systems shall be designed to avoid runoff onto hardscape from low head drainage, overspray and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures.

g. Rotor type heads shall be set back a minimum of 4 feet from hardscape.

h. The use of drip, microirrigation or pressure compensating bubblers or other systems with efficiencies of 90 percent or greater is required for all shrubs and trees. Small, narrow (less than 8 feet), irregularly shaped or sloping areas shall be irrigated with drip, microspray or PC (pressure-compensating) bubbler heads.

i. Trees in turf areas shall be on a separate station to provide proper deep watering.

j. Street median irrigation

   i. No overhead sprinkler irrigation system shall be installed in median strips or in islands.

   ii. Median islands or strips shall be designed with either a drip emitter to each plant or subsurface irrigation. Bubblers used for trees must be fixed-flow pressure compensating type. Adjustable bubblers are prohibited

k. Meter sizing for landscape purposes shall be 33 gpm per planted acre. Maximum design meter flow rates are: 3/4" = 23 gpm, 1" = 37 gpm, 1-1/2" = 80 gpm, 2" = 120 gpm

l. Large projects located outside Improvement District No. 1 of the Coachella Valley Water District shall connect to or provide future connection to recycled water if such water is available. Large projects located inside Improvement District No. 1 may be

required to connect to canal irrigation water or recycled water if such water is available. **(See attached boundary map.)**

4. Drip Irrigation System Criteria

   a. The drip system must be sized for mature-size plants.

   b. The irrigation system should complete all irrigation cycles during peak use in about 12 hours. Normally, each irrigation controller should not have more than four drip stations that operate simultaneously.

   c. Field installed below ground pipe connections shall be threaded PVC or glued PVC. Surface laid hose and tubing is prohibited. Polyethylene tubing is allowed only in subsurface installations. Drip emitter installation shall be directly into polyethylene tubing on a ¼ inch thick-walled riser. Multi-port outlet devices and multi-port distribution is prohibited.

   d. Proportion gallons per day per plant according to plant size. The following sizing chart is for peak water use. The low to high end of the range is according to the relative water requirements of the plants. The low end is for desert natives and the high end is for medium water use type plants.

Size of Plant	Gallons Per Day
Large trees (over 30-foot diameter)	58+ to 97+
Medium trees (about 18-foot diameter)	21 to 35
Small trees/large shrubs (9-foot diameter)	6 to 10
Medium shrubs (3.5-foot diameter)	.8 to 1.3
Small shrubs/groundcover	.5 or less

   e. Plants with widely differing water requirements shall be valved separately. As an example, separate trees from small shrubs and cactus from other shrubs. Multiple emitter point sources of water for large shrubs and trees must provide continuous bands of moisture from the root ball out to the mature drip line plus 20 percent of the plant diameter. See Appendix C for more information on emitter spacing and wetted area.

   f. Most plants require 50 percent or more of the soil volume within the drip line to be wetted by the irrigation system. See Appendix C for more information. For additional information on plant watering and plant relative water needs, see the plant list section of the "Lush and Efficient, Desert Friendly Landscaping in the Coachella Valley" or a list provided by the local agency.

5. Recycled Water Specifications

   a. When a site has recycled water available or is in an area that will have recycled water available as irrigation water, the irrigation system shall be installed using the industry standard purple colored or marked "Recycled Water Do Not Drink" on pipes, valves and sprinkler heads.

   b. The backup groundwater supply (well water or domestic water) shall be metered. Backup supply water is only for emergencies when recycled water is not available.

   c. Recycled water users must comply with all county, state and federal health regulations. Cross connection control shall require a 6-inch air gap system or a reduced pressure backflow device. All retrofitted systems shall be dye tested before being put into service.

   d. Where available, recycled water shall be used as a source for decorative water features.

   e. Sites using recycled water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.

   f. A Recycled Water Checklist (Appendix G) shall be submitted to the District upon submittal of the first plan check of the landscape design plan and the irrigation design plan.

6. Irrigation Water (Nonpotable) Specifications

   a. When a site is using nonpotable irrigation water that is not recycled water (from an on-site well or canal water) all hose bibs shall be loose key type and quick coupler valves shall be of locking type with nonpotable markings to prevent possible accidental drinking of this water.

   b. Sites using nonpotable irrigation water are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits or the provisions of these criteria.

7. Groundwater Water Specifications

   a. Sites using groundwater irrigation water from wells are not exempted from the Maximum Applied Water Allowance (MAWA), prescribed water audits, or the provisions of these criteria.

8. Golf Course Criteria

   a. For all new golf courses and additions or renovations to existing golf courses, the area of irrigated turf used for tees, fairways, greens and practice areas shall be limited. The total turf area of the golf course shall be limited to a maximum of four (4) irrigated acres average per golf hole. Practice areas such as driving ranges and short game areas shall not exceed ten (10) acres of turf. The golf course design shall reflect the natural topography and drainage

ways of the site, minimize the clearing of vegetation and be flexible and water efficient in design.

b. All nonturf areas such as ponds, lakes, artificial water courses, bunkers and irrigated landscapes within the golf course project area must not exceed the Maximum Applied Water Allowance (MAWA) calculations set forth within these criteria.

00.00.040 Other Provisions

A. Landscape Audit, Irrigation Survey, and Irrigation Water Use Analysis for New Construction and Rehabilitated Landscapes

1. This section shall apply to new construction and rehabilitated landscape projects installed after January 1, 2010 as described in Section 0.00.030.

2. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

3. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but not be limited to, inspection, system tune-up, system test with distribution uniformity, reporting overspray or run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming;

4. The District will administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the Maximum Applied Water Allowance (MAWA).

5. The owner of the landscaped area shall bear the cost of the audit.

B. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis for Existing Landscapes

1. This section shall apply to all existing landscapes that were installed before January 1, 2010 and are over one (1) acre in size.

2. The District will administer programs that may include, but not be limited to, irrigation water analysis, irrigation surveys and irrigation audits that verify landscape water use does not exceed the Maximum Applied Water Allowance (MAWA) for existing landscapes. The Maximum Applied Water Allowance (MAWA) for existing landscapes shall be calculated as: MAWA = (.70) (ETo) (LA) (.62/748) unless landscape plans were submitted and approved under a more water conserving ordinance.

C. Water Waste Prevention

1. Water Waste Prevention. Water waste resulting from inefficient landscape irrigation including run-off, low-head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited. All broken heads and pipes must be repaired within 72 hours of notification. Penalties for violation of these prohibitions are established in Section 0.00.070.

2. Water service to customers who cause water waste may have their service discontinued.

3. Customers who appear to be exceeding the Maximum Applied Water Allowance (MAWA) may be interviewed by the District Water Management Department to verify customer water usage to ensure compliance.

D. Soil Management Report

1. In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant or designee as follows:

   a. Submit soil samples to a laboratory for analysis and recommendation.

   b. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

   c. The soil analysis may include:

      i. Determination of soil texture, indicating the available water holding capacity.

      ii. An approximate soil infiltration rate (either) measured or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.

      iii. Measure of pH, total soluble salts and percent organic matter.

   d. The project applicant or designee shall comply with one of the following:

      i. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or

      ii. If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

   e. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and the irrigation plans to make any necessary adjustments to the design plans.

   f. The project applicant or designee shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.

E. Developer-Provided Documentation

1. The developer/applicant/designee shall provide an approved copy of the Landscape Documentation Package and the following information for the homeowner or irrigation system operator. The package/information shall include a set of drawings, a recommended monthly irrigation schedule, and a recommended irrigation system maintenance schedule as described in Section 0.00.040G.

2. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water to maintain plant health. Irrigation schedules shall meet the following criteria:

    a. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas. The irrigation schedule shall:

        i. Include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station.

        ii. Provide the amount of applied water (in hundred cubic feet) recommended on a monthly and annual basis.

        iii. Whenever possible, incorporate the use of evapotranspiration data, such as those from the California Irrigation Management Information System (CIMIS) weather stations, to apply the appropriate levels of water for different climates.

        iv. Whenever possible, be scheduled between 8:00 p.m. and 10:00 a.m. to avoid irrigating during times of high wind or high temperature. Run times and other water efficient requirements may be imposed by the CVWD Board of Directors from time to time.

G. Maintenance Schedules

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package:

1. Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include but not be limited to checking, adjusting, cleaning and repairing equipment; resetting the automatic controller, aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; and weeding in all landscaped areas.

2. Repair of irrigation equipment shall be done with the originally specified materials or their approved equal.

3. A project applicant is encouraged to implement sustainable or environmentally-friendly practices for the overall landscape maintenance.

H. Certificate of Completion

1. The Certificate of Completion (Appendix E) shall include the following:
   a. Submittal and Approval Dates of the Landscape Documentation Package and Submittal Date of the Water Efficient Landscape Worksheet
   b. Project Name
   c. Project Address and Location
   d. Applicant Name, Telephone and Mailing Address
   e. Property Owners Name, Telephone, and Mailing Address
2. Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.
3. Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
4. Landscape and irrigation maintenance schedule.
5. Irrigation audit report.
6. Soil analysis report and documentation verifying implementation of soil report recommendations.
7. The project applicant shall:
   a. Submit the signed Certificate of Completion to both the local agency and the District for review and approval.
   b. Ensure that copies of the Certificate of Completion with all approvals are submitted to the local agency, the District, and property owner or his or her designee.
8. The District and the local agency shall:
   a. Receive the signed Certificate of Completion from the project applicant.
   b. Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal or other assistance.

I. Stormwater Management

1. Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.
2. Project applicants shall refer to the District, the local agency, and/or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.

3. Rain gardens and other landscape features that increase rain water capture and infiltration are recommended.

J. Public Education

1. Public education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.

2. The District and the local agency shall provide information to residents regarding the design, installation, management and maintenance of water efficient landscapes.

0.00.050 Review and Program Monitoring Fees

A. Review and Program Monitoring fees are deemed necessary to review Landscape Documentation Packages and monitor landscape irrigation audits and shall be imposed on the subject applicant, property owner or designee.

B. A Landscape Documentation Package review fee will be due at the time of initial project application submission to the District.

C. The Board of Directors, by resolution, shall establish the amount of the above fees in accordance with applicable law.

0.00.060 Appeals

A. Appeal to General Manager-Chief Engineer. An applicant, property owner or designee of any applicable project may appeal decisions made by the Water Management Department or Service Director other than imposition of penalties (see Sections 0.00.070 – 0.00.090 regarding imposition of penalties) to the General Manager-Chief Engineer, in writing, within fifteen (15) days of notification of decision. The General Manager-Chief Engineer's decision shall become final on the fifteenth (15^{th}) day following service of written notification of said decision unless a timely appeal is filed pursuant to 0.00.060 B.

B. Appeal to Board of Directors. An applicant, property owner or designee of any applicable project may appeal decisions made by the General Manager-Chief Engineer pursuant to Section 0.00.060 A. to the Board of Directors. Said appeal must be written and submitted to the Secretary of the Board of Directors within fifteen (15) days of the date of notification of the General Manager-Chief Engineer's decision. The Board of Directors' decision shall be final upon its adoption.

0.00.070 Penalties

A. Violation of any part of Ordinance No. 1302.5 may result in any or all of the following penalties as may be imposed by the District or any other local agency with jurisdiction to take enforcement actions. The following penalties apply when enforcement action is taken by the District:

1. Monetary. See Appendix F for schedule of monetary penalties.

2. Termination of Service.

B. Notice. The District shall issue a written notice of imposition of penalty. The notice shall set forth penalty imposed and the reason for imposition of it. The notice shall be served on the customer by registered or certified mail and shall advise that the customer may request review of the imposition of penalty by filing a written request for a hearing pursuant to the provision of Section 0.00.080.

0.00.080 Hearing Regarding Penalties

A. Request for Hearing. Customers who have received notice of imposition of penalty may make a written request for a hearing. The District must receive the request for hearing no later than fifteen (15) days from the date of the notice of imposition of penalty. The request for hearing shall set forth, in detail, all facts supporting the request. Upon District's receipt of a timely request for a hearing, imposition of penalty shall be stayed until the Statement of Decision after hearing becomes final, or, if the Statement of Decision is timely appealed, the Board of Directors' order on appeal is adopted.

B. Notice of Hearing. Within ten (10) days of the District's receipt of the request for hearing, the District shall provide written notice to the customer of the date, time and place of the hearing. The hearing date shall be within thirty (30) days of the mailing of the notice of hearing, unless the parties agree, in writing, to a later date.

C. Hearing. The General Manager-Chief Engineer, or his designee, shall act as the Hearing Officer. At the hearing, the customer shall have an opportunity to respond to the allegations set forth in the notice of imposition of penalty by producing written and/or oral evidence.

D. Statement of Decision. Within ten (10) days following the hearing, the Hearing Officer shall prepare a written Statement of Decision, which shall set forth the facts upon which the decision is based. The Statement of Decision shall be served by personal delivery or registered or certified mail on the customer. The Statement of Decision shall become final on the sixteenth (16^{th}) day after service on the customer unless a request for appeal is timely filed with the Board of Directors pursuant to Section 0.00.090.

0.00.090 Appeal of Penalties

A. Request for Appeal. A customer may appeal a Statement of Decision by filing a written request for appeal with the Board of Directors before the date the Statement of Decision becomes final, i.e., no later than the fifteenth (15^{th}) day following service of the Statement of Decision on the customer. The request for appeal shall set forth, in detail, all the issues in dispute and all facts supporting the request.

B. Notice of Appeal Hearing. No later than thirty (30) days after receipt of the request for appeal, the Board of Directors shall set the matter for a hearing. Written notice of said hearing of appeal shall be served on the appellant by personal delivery or registered or certified mail. The hearing date shall be a date within thirty (30) days of service of the notice of hearing of appeal, unless the parties agree, in writing, to a later date. If the Board of Directors does not hear the appeal within the required time due to acts or omissions of the appellant, the Statement of Decision shall become final on the thirty-first (31^{st}) day after service of notice of hearing of appeal on the customer.

C. Determination and Order on Appeal. After the hearing of appeal, the Board of Directors shall issue an order affirming, modifying or reversing the General Manager-Chief Engineer's decision. The Board of Directors shall set forth its Determination and Order, in writing, and shall serve the Determination and Order to the customer by personal delivery or registered or certified mail within thirty (30) days following the hearing. The Determination and Order of the Board of Directors shall be final upon its adoption.

APPENDIX A

LANDSCAPE DOCUMENTATION PACKAGE CHECKLIST

Project Site: _____ Tract or Parcel Number: _____

Project Assessor's Parcel Number (APN): _____

Project Location: _____

Landscape Architect/Irrigation Designer/Contractor and Name and Contact Information: _____

Included in this Landscape Documentation Package are: (Check to indicate completion)

____ 1. Water Efficient Landscape Worksheet (Appendix B)
WATER BUDGET CALCULATIONS (Appendix D)

____ 2. Maximum Applied Water Allowance (MAWA):

Conventional Landscape: _____ 100 cubic feet/year
+ Recreational Turf grass Landscape: _____ 100 cubic feet/year (if applicable)
Maximum Applied Water Allowance: _____ 100 cubic feet/year

____ 3. Estimated Total Water Use by Hydrozone:
Turf grass Hydrozones: _____ 100 cubic feet/year
Recreational Turf grass Hydrozones: _____ 100 cubic feet/year
Low Plant Hydrozones: _____ 100 cubic feet/year
Medium Plant Hydrozones: _____ 100 cubic feet/year
High Plant Hydrozones: _____ 100 cubic feet/year
Water Features: _____ 100 cubic feet/year
Other _____: _____ 100 cubic feet/year
Estimated Total Water Use: _____ 100 cubic feet/year

____ 4. ETWU < MAWA
PLAN SETS

____ 5. Landscape Design Plan

____ 6. Irrigation Design Plan

____ 7. Grading Design Plan

____ 8. Soil Management Report

I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Date: _____ Applicant: _____

APPENDIX B

SAMPLE WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and is a required element of the Landscape Documentation Package.

PROJECT INFORMATION

Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each irrigation point of connection. Use as many tables as necessary to provide the square footage of landscape area per valve.

Irrigation Point of Connection (P.O.C.) No. _____					
Controller No.	**Valve Circuit No.**	**Plant Types(s)***	**Irrigation Method****	**Area (Sq. Ft.)**	**% of Landscape Area**
Total					**100%**

***Plant Type**
CST = Cool Season Turf
WST = Warm Season Turf
HW = High Water Use Plants
MW = Moderate Water Use Plants
LW = Low Water Use Plants

****Irrigation Method**
MS = Microspray
S = Spray
R = Rotor
B = Bubbler
D = Drip
O = Other

APPENDIX C
ET PROFILE AND PLANT FACTORS

Monthly Eto (inches)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Inches	Total Feet
Zone 2	1.77	2.94	4.12	5.89	7.06	8.24	8.24	6.48	5.89	4.12	2.35	1.77	58.87	4.91
Zone 3	1.93	3.21	4.50	6.42	7.71	8.99	8.99	7.06	6.42	4.50	2.57	1.93	64.22	5.35
Zone 4	2.29	3.82	5.35	7.65	9.17	10.70	10.70	8.41	7.65	5.35	3.06	2.29	76.46	6.37
Zone 5	2.50	4.17	5.83	8.33	10.00	11.67	11.67	9.17	8.33	5.83	3.33	2.50	83.34	6.94
Percent Annual ETo	0.03	0.05	0.07	0.10	0.12	0.14	0.14	0.11	0.10	0.07	0.04	0.03		

Zone #2 = ALL coves, upper and lower from Highway 111 South.

Zone #3 = Moderate winds, minimum monthly shadows, some blowing dust and sand, upper valley predominant wind from northwest.

Zone #4 = Moderate winds, minimum monthly shadows, some blowing dust and sand lower valley has lower elevation and more summer southwest wind.

Zone #5 = Frequent strong northwest winds, heavy blowing dust and sand, typical of I-10 corridor.

Maximum Applied Water Allowance (CCF) = ETo (inches) × 0.45× Area (Square feet) × 0.62 ÷ 748

ET Adjustment Factor = 0.45
0.62= gallons per square foot per inch deep
CCF= 100 cubic feet = 1 billing unit= 748 gallons

Target Irrigation Efficiency
0.80= Turf Rotor
0.75= Sprayheads
0.90= Drip/Micro/PC Bubblers

$$\text{Estimated Total Water Use (CCF)} = \frac{\text{ETo (Inches)} \times \textit{Plant Factor} \times \textit{Area (Square Feet)} \times 0.62 \div 748}{\text{Irrigation System Efficiency}}$$

$$\text{Emitters per Plant Estimate} = \frac{\text{Area of Plant (square feet)} \times \textit{Percent of Area to be Wet}}{\text{Square Feet Wet Per Emitter}}$$

Soil Type	Inches Water Holding Capacity per Inch of Depth	Description
Very Coarse Sand	0.05	Typical of high on an alluvial fan
Blow Sand	0.07	Typical of mid valley ridge area
Fine Sand	0.10	Typical of low alluvial fans from Rancho Mirage to Indian Wells
Very Fine Silty Sand	0.15	Typical of lowest alluvial fans from La Quinta, Indio, Coachella
Silt Loam	0.17	Typical of lower valley agricultural areas located below sea level

Emitter Wetted Area Square Feet Each	Emitter Spacing
0.75 to 1.75	10"
1.75 to 3	18"
3 to 5	3'
5 to 10	4'
10 to 28	4.5'

APPENDIX C
ET PROFILE AND PLANT FACTORS

Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Cool Turf 100% **	1.00	1.00	NR	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
Warm Turf 100%**	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
Cool Turf 80%*	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
Warm Turf 60%*	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
Combined TurfSav*	0.80	0.80	0.80	0.60	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
Tree/Shrub/GC L*	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Tree/Shrub/GC L**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Tree/Shrub/GC M*	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Tree/Shrub/GC M**	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Tree/Shrub/GC H*	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Tree/Shrub/GC H**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Open Water Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley
* = Normal irrigation level to maintain established planting
** = Normal irrigation level during plant establishment
*** = Approximate evaporation. Reference, WULCOLS IV

GC = Groundcover
L = Low water use, Kc. 0.1 to 0.3
M = Moderate water use, Kc. 0.4 to 0.6
H = High water use, Kc. 0.7 to 0.9
NR = Not Recommended

APPENDIX D
SAMPLE CALCULATION/ESTIMATED TOTAL WATER USE (by Hydrozone)

Using the following formula from Appendix C:

ETWU = (ETo) x (PF) x (LA) x (.62)] / (748) / (IE)
ETWU = Estimated Water Use (hundred cubic feet)
ETo = Reference Evapotranspiration (inches) [for period of estimate]
PF = Plant Factor (Kc)
LA = Landscaped Area (in square feet)
.62 = Conversion Factor (to gallons per square foot)
748 = Conversion Factor (to hundred cubic feet)
IE = Irrigation System Efficiency

Project Site Example: Total landscaped area 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 2 (64.0" Annual ETo).

- 12,000 square feet of turf grass overseeded with rye grass in winter, irrigated with low angle rotor sprinklers.
- 32,700 square feet of "low" desert native plantings on drip irrigation.
- 15,300 square feet of "moderate" water using plantings on drip irrigation.

See Appendix C for formula factors. ETo is totaled for season. Turf grass plant factors are the average for the season and tree/shrub/groundcover plant factors are considered constant annually.

Plant Factors

Turf Grass	Low Native Plants	Moderate Shrubs
0.70	0.20	0.50

ETWU = [(ETo) x (PF) x (LA) x (.62) / (748)] / (IE) = CCF

Overseeded Turf Grass: Season = 64.0 x 0.7 x 12,000 x 0.62 ÷ 748 ÷0.80 = 557 CCF
Seasonal Turf ETWU = 557 CCF

"Low" Native Plants: Annual = 64.0 x 0.2 x 32,700 x 0.62 ÷ 748 ÷ 0.90 = 385 CCF
"Low" Native ETWU = 385 CCF

"Moderate" Shrubs and Ground Cover: Annual = 64.0 x 0.5 x 15,300 x 0.62 ÷ 748 ÷0.90 = 451 CCF

"Moderate" ETWU = 451 CCF
Project Total ETWU = 1,393CCF

APPENDIX D

SAMPLE CALCULATION

Maximum Applied Water Allowance (MAWA)

Using the following formula:

MAWA = [(ETo) x (0.45) x (LA) x (0.62)] / (748)
MAWA = Maximum Applied Water Allowance (CCF or hundred cubic feet)
ETo = Reference Evapotranspiration (inches per year)
0.45 = ET adjustment factor
LA = Landscaped Area (square feet)
0.62 = Conversion Factor (to gallons per square foot)
748 = Conversion Factor (to hundred cubic feet)

Using the project for the Estimated Total Water Use example:

Landscaped area of 60,000 square feet in Palm Desert near the intersection of Cook Street and Country Club Drive in Zone No. 3 (64.0" Annual ETo).

MAWA = 64.0 (ETo) x (0.45) x (LA) x (0.62) ÷ (748)
= [64.0(0.45) (60,000) (0.62)] / (748)
MAWA = 1,432 CCF

ETWU total of 1,393CCF is < the MAWA of 1,432 CCF

APPENDIX E

SAMPLE CERTIFICATE OF COMPLETION

Project Name:_____

Parcel Map or Tract No.:_____ APN:_____

Project Location:_____

Maximum Applied Water Allowance (MAWA):_____ (in hundred cubic feet)

Estimated Annual Total Applied Water Use:_____ (in hundred cubic feet)

Preliminary project documentation submitted (initials indicate submittal)

_____1. Grading design plan

_____2. Landscape design plan

_____3. Irrigation design plan

_____4. Irrigation schedules

Post Installation inspection (initials indicate completion)

_____1. Plants installed as specified

_____2. Irrigation System installed as designed

Comments:_____

_____

_____

A copy of this certification has been provided to the owner/developer, the local agency and to the District. I certify the work has been completed in accordance with District Ordinance 1302.5, Landscape and Irrigation System Design Criteria.

_____

Landscape Architect/Designee Signature License No. Date

1. Date the Landscape Documentation Package was submitted to the Local Agency: _____

2. Date the Landscape Documentation Package was approved by the Local Agency: _____

3. Date a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the District: _____

APPENDIX F

SCHEDULE OF MONETARY PENALTIES

1. $250 upon receipt of first written Notice of Non-compliance.
2. An additional $250 (for a total of $500) upon receipt of the second Notice of Non-compliance issued thirty (30) days after the receipt of the first Notice of Non-compliance.

APPENDIX G

Recycled Water Checklist

1. Obtain coverage under the general waste discharge requirements for discharge of recycled water for golf course and landscape irrigation Order No. 97-700 or equivalent version of this permit from the California Regional Water Quality Control Board of the Colorado River Basin Region (Regional Board) by submitting a Notice of Intent to the Regional Board and paying application/annual fees.

2. Enter into an agreement with CVWD for receiving nonpotable water for golf course and landscape irrigation. The agreement between discharger and CVWD must be provided to the Regional Board within 90 days of receiving coverage under the permit referenced above in item #1.

3. Landscape and Irrigation system plans must meet regulatory requirements of Order 97-700 or equivalent version of this permit, the State Board's Recycled Water Policy, and California Department of Public Health (CDPH) Statutes and Regulations related to recycled water, such as the Health and Safety Code, the Water Code, Title 17 and Title 22 Code of Regulations. These requirements include but are not limited to the following:

    a. An air-gap separation, a vertically measured distance between supply pipe and receiving vessel must be present and meet the required distance for the size of the supply pipe.

    b. The appropriate type of backflow protection is to be installed for auxiliary water supplies and recycled water.

    c. The required separation distance between recycled water lines and impoundments and application area; and domestic wells and water lines is maintained and approved by CDPH.

    d. The design of the irrigation system shall not cause the occurrence of ponding anywhere in the reuse area, and overspray or mist around dwellings, outdoor eating areas and/or food handling facilities is eliminated. Irrigation runoff shall be confined to the recycled water use area unless authorized by CDPH.

    e. Drinking fountains will be protected from spray, mist or runoff by use of a drinking fountain cover or shelter approved for this purpose.

    f. Hose bibs are not allowed on portions of the recycled water systems accessible to the general public. Quick couplers that differ from those used on the potable water system are allowed.

g. Signs are posted in areas that the public has access to that are no less than 4 inches high by 8 inches wide and include "RECYCLED WATER—DO NOT DRINK" and the international do not drink symbol as indicated in CCR Title 22 Division 4 Chapter 3 Article 4 Section as figure 60310-A. The number and locations of these signs will be approved by CDPH.

h. The recycled water irrigation system is able to be operated during a time of day that will minimize contact with the public.

i. All pipes installed above or below ground on or after June 1, 1993 designed to carry recycled water are to be colored purple or wrapped in purple tape.

j. Golf course pump houses utilizing recycled water are appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes. All other appurtenances and equipment used for recycled water must be identified as used for recycled water distribution per the recommendations of CDPH.

4. Prior to construction, landscape and irrigation system plans must be submitted for approval to the following agencies (please allow for a 30 day comment period):
   a. Regional Board Water Quality Control Board,
   b. California Department of Public Health, and
   c. CVWD.

5. Upon approval from the Regional Board and CDPH, the discharger shall provide notification that recycled water will be used for irrigation to people who reside adjacent to the recycled water use area and to golf course patrons though a method approved by the Regional Board's Executive Officer and CDPH at least 30 days prior to use of recycled water.

6. A Use Site Supervisor must be designated and his or her name and contact information must be provided in writing to CVWD and the Regional Board 30 days prior to discharge of recycled water. This person will be available to be contacted and receive periodic education and training on the uses and restrictions of recycled water.

7. A cross-connection control test will be performed on the irrigation and domestic systems prior to the discharge of recycled water and at least once every four years thereafter. This test is to be conducted by an American Water Works Association (AWWA) certified cross-connection control program specialist or equivalent. The results of these tests are to be submitted to CVWD, CDPH, and the Regional Board within 30 days of test completion.

8. "As-Built" plans and specifications showing the domestic and irrigation systems, location of all potable and recycled water connections and location of all on-site and nearby wells to CDPH, as per the CDPH requested time frame.

APPENDIX H

Prescriptive Compliance Option

(a) This appendix contains prescriptive requirements which may be used as a compliance option to Ordinance 1302.5, Landscape and Irrigation Design Criteria.
(b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:
    (1) Submit a Landscape Documentation Package which includes the following elements:
        i. Date
        ii. Project applicant
        iii. Assessor's Parcel Number (project address if available)
        iv. Total landscape area (square feet), including a breakdown of turf and plant material
        v. Project type (e.g., new, rehabilitated, single-family residential, home-owner installed)
        vi. Water supply type (e.g., potable, recycled, well)
        vii. Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option of Ordinance 1302.5".
    (2) Plant material shall comply with all of the following;
        i. Install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles.
        ii. A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
    (3) Turf shall comply with all of the following:
        i. Turf shall not exceed 25% of the landscape areas;
        ii. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
        iii. Turf is prohibited in areas less than 10 feet wide.
    (4) Irrigation systems shall comply with the following:
        i. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.
        ii. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

iii. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

iv. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

v. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter

vi. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

(5) Prior to final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

Ordinance to be effective on July 28, 2020.

PASSED AND ADOPTED by the Board of Directors of the Coachella Valley Water District, County of Riverside, State of California, this 28th day of July 2020 by the following roll call vote:

AYES: Powell, Nelson, O'Dowd, Estrada

NOES: None

ABSENT: Bianco

ATTEST:

Sylvia Bermudez, CMC Clerk of the Board
Coachella Valley Water District

John P. Powell, President
Coachella Valley Water District

Desert Water Agency



Desert Water Agency
Water Shortage Contingency Plan

Final Draft

prepared on behalf of

Desert Water Agency
1200 S Gene Autry Trail
Palm Springs, California 92264

prepared by

Rincon Consultants, Inc.
2060 Knoll Drive
Ventura, California 93003

May 11, 2026

RINCON CONSULTANTS

DWA DESERT WATER AGENCY

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Attachments

Attachment A Desert Water Agency Ordinance No. 72

1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the Desert Water Agency (DWA) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the DWA Board of Directors, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes DWA's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and the DWA Board of Directors are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant DWA the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

DWA is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook (DWR 2026)

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for recharge include:

- **Colorado River water** that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- **State Water Project (SWP) water** that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct to for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

Drought conditions are not expected to affect CVWD's Colorado River water supply due to the agency's high priority allocation, though post-2026 negotiations are ongoing. Colorado River water is not a direct source of urban water supply; it is used for groundwater replenishment and non-potable irrigation uses. If a reduction in Colorado River water supply occurred, CVWD would initially reduce deliveries to groundwater replenishment projects. Subsequent reductions in delivery would be applied by the CVWD Board of Directors as provided in CVWD's Canal Water Shortage Contingency Plan, Chapter 3.10, Article XII of CVWD's administrative code (CVWD 2026).

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for DWA is presented in Section 6.7 of DWA's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how DWA intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible.

3 Annual Water Supply and Demand Assessment Procedures

DWA is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and present an assessment of the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that DWA will use to prepare the Annual Assessment. The procedures defined in this section will allow DWA to follow a consistent annual procedure for making the determination of whether to activate the WSCP.

3.1 Decision Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	DWA staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, individual agencies may elect to activate their WSCP at different shortage levels than other participating agencies.
April	DWA staff will make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, DWA management will present the recommendation to the governing board for consideration. If the governing board decides to implement the WSCP, it will provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	DWA staff prepares the Annual Assessment and submits to DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

DWA will rely on locally applicable criteria for each Annual Assessment. This includes findings of the annual reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. The annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated along with both applicable reports and data.

3.2.2 Water Supply

DWA's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

DWA will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4 of each agency's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

DWA will describe the anticipated use of water supplies for the coming year, with the anticipation that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

DWA will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. DWA will verify that its system of wells, pipelines, pump stations, storage tanks and related infrastructure have adequate capacity to deliver the anticipated demands. DWA will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

DWA will describe any specific locally applicable factors that could influence or disrupt supplies. DWA will also describe unique local considerations that are considered as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

The RUWMP participating agencies have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are identified in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Shortage Response Actions
1	Less than 10%	Normal water supplies	Mandatory prohibitions defined by the state, ongoing rebate programs
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to DWA. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. DWA may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by DWA at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, DWA continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. CVWD and DWA collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, the RUWMP participating agencies continue to implement water conservation measures and increase use of recycled water usage to reduce groundwater demand. DWA's demand management programs are described in DWA's chapter of the RUWMP.

In its WSCP, DWA has the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Other Actions	Volume	Medium	In areas where recycled water or other non-potable supply is available, customers could be mandated to use these supplies and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency flexibility needed to address unique characteristics. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- A balanced program should include rebates (such as expanded rebates for turfgrass removal) as well as penalties (such as drought rates).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, DWA may implement some or all of the actions as needed, depending on actual conditions. As described in Section 6.9 of DWA's chapter of the RUWMP, DWA implements demand management measures (DMMs) to increase water use efficiency which includes details regarding water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation.

DWA implements mandatory restrictions on water use through Ordinance No. 72 as reflected in Attachment A. This ordinance includes regulations restricting the use of water during threatened or existing water shortage conditions. Through this ordinance, water conservation levels are established and detail prohibitions of waste and unreasonable use of water for each level as described in Table 4, including penalties and enforcement of violation.

Table 4. Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	1.1	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	No
	1.2	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	No
	1.3	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	No
	1.4	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	No
	1.5	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	No
	1.6	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	No
	1.7	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	1.8	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	1.9	Agency shall discourage overseeding.	Volume	Low	No
	1.10	Agency shall provide rebates for landscape efficiency.	Volume	High	No
	1.11	Agency shall offer water use surveys/audits.	Volume	Medium	No
	1.12	Agency shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	2.1	Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	2.2	Restaurants can serve water only on request.	Volume	Low	Yes
	2.3	Agency shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	2.4	Agency shall actively discourage overseeding.	Volume	Medium	No
	2.5	Agency shall reduce outdoor water budget by 10%	Volume	Medium	Yes
	2.6	Agency shall expand public information campaign.	Volume	Medium	No
	2.7	Agency shall increase water waste patrols.	Volume	Medium	Yes
	2.8	Agency shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	3.1	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	3.2	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	3.3	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	3.4	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	3.5	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	3.6	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	3.7	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	3.8	Agency shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new State laws regarding limitations on such enforcement.	Volume	Low	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
	3.9	Agency shall strengthen customer billing messages with use comparisons.	Volume	Medium	No
	3.10	Agency shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	3.11	Agency shall expand rebate programs.	Volume	Medium	No
4	4.1	Turfgrass landscapes may not be watered except where subterranean or non-potable water systems are used.	Volume	High	Yes
	4.2	No new turf landscaping shall be installed.	Volume	N/A	Yes
	4.3	Agency shall implement or modify drought rate surcharge.	Volume	High	Yes
	4.4	Agency shall reduce outdoor water budget by up to 25%.	Volume	High	Yes
	4.5	Agency shall expand public information campaign.	Volume	Medium	No
5	5.1	Watering turfgrass is prohibited.	Volume	High	Yes
	5.2	The use of misting systems is prohibited.	Volume	Medium	Yes
	5.3	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	5.4	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	5.5	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	5.6	Outdoor water use for grading or development is prohibited.	Volume	High	Yes
	5.7	Agency shall reduce outdoor water budget by up to 50%.	Volume	High	Yes
	5.8	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes
	5.9	Agency shall not issue new construction meters, and water service through construction meters will not be available.	Volume	N/A	Yes

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
6	6.1	The Agency will implement mandatory rationing.	Volume	High	Yes
	6.2	Outdoor water use is prohibited.	Volume	High	Yes
	6.3	Restaurants must use disposable cups, plates, and utensils.	Volume	Low	Yes
	6.4	Commercial nurseries shall discontinue all watering and irrigation.	Volume	Low	Yes
	6.5	Watering of livestock is permitted as necessary.	Volume	N/A	Yes

5.3 Operational Changes

DWA has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4. DWA may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

DWA has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in the agency's Emergency Response Plan (ERP). DWA's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available. DWA's plan outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

DWA collaborates on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because the agencies use local groundwater to meet urban demands, the agencies could continue to meet short term urban demands with groundwater production. DWA has portable generators that can be deployed to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA.

RUWMP participating agencies participate in Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. DWA would implement levels of this WSCP, as needed, if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires the agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

The Riverside County Multi-Jurisdiction Local Hazard Mitigation Plan (MJLHMP) which was updated in 2025 (Riverside County 2023). The Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies and actions to reduce the impacts of a seismic event. The RUWMP participating agencies continue to include seismic risk assessment in their planning process for system improvements.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be a normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly. Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assume all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. DWA will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of DWA's service area. DWA will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

At all times	Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update message platform to reflect conditions, DWA's response, and needed actions from public	Update campaign and messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update campaign and messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update campaign and messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce emergency status to key stakeholders and general public (e.g., News release, social media, etc.)
Standard coordination with MWD and regional partners	Include increased conservation messages on website and in standard outreach efforts; provide regular condition updates to stakeholders/media	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to stakeholders/media	Supplement Level 2 outreach with additional tactics as needed; provide regular updates to stakeholders/media on conditions	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to stakeholders/media on conditions
Board reports on public communication and water-use efficiency outreach activities at least annually	Enhance promotion of ongoing WUE programs/tools; deploy targeted advertising	Conduct issue briefings with elected officials, other key civic and business leaders	Conduct specialized outreach to HOAs and local organizations	Suspend promotion of long-term WUE programs/tools to focus on imminent needs
	Initiate regular Board reports on campaign efforts	Increase promotion of ongoing WUE programs/tools	Promote available water assistance resources for vulnerable populations; specialized outreach to impacted industries	Continue enhanced coordination with neighbor agencies and local/state/federal policy makers as needed (e.g., daily or weekly briefings or email updates, etc.)

7 Compliance and Enforcement

This section describes how DWA will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6.

Table 6. Enforcement Actions

Water Shortage Level	First Violation	Second Violation (within 12 months)	Third Violation (within 12 months)	Subsequent Violations	Additional Information
1-6	Single-family residence: $50 civil penalty	Single-family residence: $100 civil penalty	Single-family residence: $250 civil penalty	Single-family residence: $250 civil penalty	DWA staff is authorized to discontinue water service for water waste violations.
	All others: $100 civil penalty First penalties may be removed through participation in an incentive program at staff discretion.	All others: $200 civil penalty	All others: $500 civil penalty	All others: $500 civil penalty	DWA could pursue criminal charges for violation. Severe or persistent violations may be considered a misdemeanor. Conviction of a violation of could result in imprisonment in the County jail for up to 30 days, a fine of up to $1000, or both such fine and imprisonment.

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that DWA relies upon to implement the shortage response actions and the associated enforcement actions.

DWA's Ordinance No. 72 establishes its Water Conservation Plan and was adopted June 15, 2021. A copy of the legal authority is included in Attachment A.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, DWA shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

DWA shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 7 contains a list of contacts for all cities or counties for which the RUWMP participating agencies provide service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Imperial County	Office of Emergency Services	X					
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of La Quinta	Emergency Management Division	X			X	X	
City of Indio	Emergency Services Coordinator	X	X		X		
City of Coachella	Emergency Services Coordinator	X	X		X		
City of Palm Desert	Emergency Services Coordinator	X					
City of Cathedral City	Emergency Manager	X		X			
City of Indian Wells	Emergency Services Coordinator	X					
City of Rancho Mirage	Emergency Services Coordinator	X					
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to DWA of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Financial Impacts and Mitigation Action

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions
- Economic impacts associated with water-dependent businesses in the service area

Potential mitigation measures include:

- Triggering of drought rate structures or surcharges
- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced water production)
- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge
- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative sources of funding, such as state or federal grants or loans
- Other financial management mechanisms

DWA will monitor financial conditions during a water shortage and take appropriate actions, as needed. DWA maintains financial reserves that can be used to continue operations during a period of reduced water sales. DWA has the ability to increase water rates or implement a surcharge to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. DWA may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

10 Monitoring and Reporting

This section describes how DWA will monitor and report on implementation of the WSCP. DWA will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving their intended water use reduction purposes. DWA will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. DWA will gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies as needed.

DWA will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and water connection point is also

metered, and production records will be used to observe trends in water production. Levels in reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks.

DWA staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

The consumption records will be aggregated by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

DWA will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If DWA determines that the shortage response actions are not effective in producing the desired results, DWA will initiate a process to refine the WSCP. DWA will consider the addition of new shortage response actions or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from DWA staff, customers, industry experts, and the general public. The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while most pools and spas (recreational water features) use potable water for health and safety considerations. However, this distinction does not apply to the hot mineral spring pools and spas throughout the Desert Hot Springs area; while they are recreational, they also do not rely on potable water.

As identified in DWA Ordinance No. 72 and reflected in Table 4, additional restrictions associated with water fountains, decorative water features, swimming pools, decorative ponds, waterscape features, and landscaping ponds are defined and may be subject to restrictions as described in the ordinance. For example, under Level No. 1 Normal Conditions, draining and refilling of private swimming pools is discouraged, unless necessary for health and safety repairs.

13 Plan Adoption Submittal, and Availability

This 2025 WSCP was presented for adoption at the DWA public meeting on June 2, 2026. Notifications were sent to the cities and counties described in the 2025 RUWMP. To comply with the notice to the public, DWA published notices in the local newspaper at least two weeks in advance with 5 days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on June 2, 2026, by DWA Ordinance, included in the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at DWA's office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within DWA's service area within 30 days of adoption.

Based on DWR's review of the WSCP, DWA will make any amendments in its adopted WSCP, as required and directed by DWR. If DWA revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Attachment A. Desert Water Agency Ordinance No. 72

ORDINANCE NO. 72

AN ORDINANCE OF DESERT WATER AGENCY ESTABLISHING A WATER SHORTAGE CONTINGENCY PLAN INCLUDING REGULATIONS RESTRICTING THE USE OF WATER DURING THREATENED OR EXISTING WATER SHORTAGE CONDITIONS

WHEREAS, Desert Water Agency (hereinafter "Agency") is a public agency organized under the Desert Water Agency Law, California Water Code Appendix Section 100-1 et seq., to provide water service among other purposes to water users within the boundaries of the Agency; and

WHEREAS, the Agency is authorized by Water Code Appendix Section 100-15 (13) to restrict the use of Agency water during an emergency caused by a drought, or other threatened or existing water shortage, and during such periods to prohibit the waste or the use of Agency water for any purpose other than household uses or such other restricted uses as may be determined by the Agency to be necessary; and

WHEREAS, the Agency is further authorized by Water Code Sections 375-377 to adopt water conservation programs; and

WHEREAS, after the historic 2012-2016 drought, the California Legislature enacted several laws in 2018 to advance long-term water use efficiency as a way to demonstrate conservation as a way of life; and

WHEREAS, urban water suppliers are required to prepare, adopt and submit to the California Department of Water Resources a Water Shortage Contingency Plan and conduct a Drought Risk Assessment every five years.; and

WHEREAS, the Agency wishes to adopt a Water Shortage Contingency Plan that meets requirements set forth in the regulations adopted by the Department of Water Resources and State Water Resources Control Board in implementation of long-term water-use efficiency, and which will provide a framework for managing supplies in shortage conditions; and

WHEREAS, the Agency finds and determines that the adoption of the Water Shortage Contingency Plan set forth herein is necessary to (1) comply with State mandates, (2) protect the health, safety and welfare of the inhabitants of the Agency, (3) assure the maximum beneficial use of the water supplies within the Agency, and (4) ensure that there will be sufficient water supplies to meet the basic needs of human consumption, sanitation and fire protection;

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of Desert Water Agency as follows:

Section 1: DEFINITIONS.

1.1 "Agency" means Desert Water Agency.

1.2 "Board" means the Board of Directors of Desert Water Agency.

1.3 "General Manager" means the General Manager of Desert Water Agency.

1.4 "Measurable rainfall" means rainfall of 1/10 inch or more during any 24-hour period.

1.5 "Waste" means any unreasonable or non-beneficial use of water, or any unreasonable method of use of water, including, but not limited to, the specific uses prohibited and restricted by this Ordinance as hereinafter set forth.

1.6 "Water user" means any person, firm, partnership, association, corporation or political entity using water obtained from the water system of Desert Water Agency.

1.7 "Water" means water supplied by Desert Water Agency.

Section 2: NOTICED PUBLIC HEARING PRIOR TO MANDATORY CONSERVATION, LEVELS 2 THROUGH 6.

Except when an emergency is caused by the breakage or failure of Agency infrastructure or by a malevolent act, a noticed public hearing shall be conducted prior to the adoption of Level 2, 3, 4, 5 or 6 of the Water Shortage Contingency Plan as set forth in Sections 3.2, 3.3, 3.4 and 3.5 below. Notice of the time and place of hearing shall be published at least seven days prior to the date of hearing in a newspaper printed, published, and circulated within the area in which the water supply is distributed, or if there is no such newspaper, in any newspaper printed, published and circulated in the County of Riverside.

Section 3: WATER CONSERVATION PLAN LEVELS.

3.1 Level No. 1: Normal Conditions

Level 1 shall apply whenever normal conditions are in effect. Normal conditions shall be in effect when the Agency is able to meet all the water demands of its customers in the immediate future, and when the State Water Resources Control Board or other regulatory body has not imposed restrictions on the use of water within the Agency. During normal conditions, all water users must continue to use water wisely. The waste or unreasonable use of water is prohibited.

(1) Water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or parking structures is prohibited.

(2) Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.

(3) Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.

(4) Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.

(5) Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.

(6) Broken sprinklers shall be repaired within five business days of notification by the Agency, and leaks shall be repaired as soon as practical.

(7) Hotels will provide guests the option of choosing not to have towels and linens laundered daily.

(8) Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or repairs.

(9) The Agency will discourage overseeding.

(10) The Agency will provide rebates for landscape efficiency.

(11) The Agency will provide rebates on indoor water use efficiency.

(12) The Agency will offer water use surveys/audits.

3.2 Level 2: Alert

When the State Water Resources Control Board or other regulatory body has imposed restrictions on the use of water within the Agency that warrant the restrictions set forth herein, or in the event of a threatened or existing water supply shortage that could prevent the Agency from meeting the water demands of its water users, the Board shall conduct a public hearing to consider declaring a Level 2 Alert, during which water users shall have the opportunity to present their

protests and respective needs to the Board. Upon such declaration the following restrictions shall take effect immediately, in addition to those specified in Section 3.1:

(1) Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an Agency-approved conservation alternative plan.

(2) Restaurants and other eating establishments shall not provide drinking water to patrons, except upon request.

(3) The Agency will discourage overseeding.

(4) The Agency will expand its public information campaign.

(5) The Agency will increase water waste patrols.

(6) The Agency will reduce hydrant and dead-end line flushing.

3.3 Level 3: Warning

When the State Water Resources Control Board or other regulatory body has imposed restrictions on the use of water within the Agency that warrant the restrictions set forth herein, or in the event that a water shortage condition in fact will prevent the Agency from meeting the demands of its water users, following a public hearing as set forth in Section 3.2, during which water users shall have the opportunity to present protests and their respective needs to the Board, the Board may declare that a Level 3 Warning condition exists. Upon such declaration, the following water conservation measures shall apply in addition to those set forth in Sections 3.1 and 3.2:

(1) Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday and Friday).
(2) Drip or subterranean irrigation is allowed seven days a week, during non-daylight hours.
(3) Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.
(4) Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.
(5) No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.
(6) Commercial car washes must use recycled water or a recirculating water systems.
(7) Spray irrigation of medians and parkways is prohibited.
(8) The Agency will encourage counties, cities, Homeowners Associations (HOAs) and other entities to suspend code enforcement and fines for brown turfgrass areas.
(9) The Agency will strengthen customer billing messages with the use of comparisons.
(10) The Agency will implement water use audits targeted to key customers to ensure compliance with directives.
(11) The Agency will expand rebate programs.

3.4 Level 4: Critical

When the State Water Resources Control Board or other regulatory body has imposed restrictions on the use of water within the Agency that warrant the restrictions set forth herein, or in the event that a water shortage condition requires a significant reduction in water use, following a public hearing as set forth in Section 3.2, during which water users shall have the opportunity to present protests and their respective needs to the Board, the Board may declare that a Level 4 Emergency condition exists. Upon such declaration, the following water conservation measures shall apply in addition to those set forth in Sections 3.1, 3.2 and 3.3:

(1) Turfgrass landscapes may not be watered except with subterranean irrigation or recycled water.

(2) No new turfgrass landscaping shall be installed.

(3) The Agency shall consider implementing its drought rate surcharge.

(4) The agency will expand its public information campaign.

3.5 Level No. 5: Urgent

When the State Water Resources Control Board or other regulatory body has imposed restrictions on the use of water within the Agency that warrant the restrictions set forth herein, or in the event that a water shortage condition requires a significant reduction in water use, following a public hearing as set forth in Section 3.2, during which water users shall have the opportunity to present protests and their respective needs to the Board, the Board may declare that a Level 5 Emergency condition exists. Upon such declaration, the following water conservation measures shall apply in addition to those set forth in Sections 3.1, 3.2, 3.3 and 3.4:

(1) Watering turfgrass is prohibited.
(2) The use of misting systems is prohibited.
(3) Turfgrass at parks and school grounds may water with recycled water or not at all.
(4) Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water or not at all.
(5) Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.
(6) Outdoor water use for grading or development is prohibited.
(7) The Agency will impose a moratorium or net zero demand on new connections.
(8) The Agency will not issue new construction meters, and service through construction meters will not be available.

3.6 Level No. 6 – Emergency Rationing

When the State Water Resources Control Board or other regulatory body has imposed restrictions on the use of water within the Agency that warrant the restrictions set forth herein, or in the event that a water shortage condition requires a significant reduction in water use, following a public hearing as set forth in Section 3.2, during which water users shall have the opportunity to present protests and their respective needs to the Board, the Board may declare that a Level 6 Emergency condition exists. Upon such declaration, the following water conservation measures shall apply in addition to those set forth in Sections 3.1, 3.2, 3.3, 3.4 and 3.5:

(1) The Agency will implement mandatory rationing.
(2) Outdoor water use is prohibited.
(3) Restaurants must use disposable cups, plates, and utensils.
(4) Commercial nurseries shall discontinue all watering and irrigation.
(5) Watering of livestock is permitted as necessary.

In addition, as set forth in Water Code Sections 350 et seq., the Board may consider adoption of a resolution or ordinance that allocates water deliveries among the Agency's water users, and that imposes penalties for consumption in excess of the allocated amounts. The resolution or ordinance may also, or instead, impose a limit on new water service connections. Violation of the provisions of such resolution or ordinance shall be deemed a violation of this Ordinance, and shall be subject to the enforcement provisions set forth herein.

Section 4: MODIFICATION OF WATER CONSERVATION MEASURES.

The specific requirements of each mandatory conservation Level identified in this Ordinance shall be effective upon adoption by the Board following a public hearing; provided that the Board may modify or amend such requirements at the time of adoption upon a showing of the need for such modification or amendment.

Section 5: IMPLEMENTATION AND TERMINATION OF MANDATORY COMPLIANCE LEVELS.

The General Manager of the Agency shall monitor the supply and demand for water on a regular basis to determine the level of conservation required by the implementation or termination of the Water Shortage Contingency Plan Levels set forth in this Ordinance, and shall notify the Board of the necessity for the implementation or termination

of each Level. Each declaration of the Board implementing a Water Shortage Contingency Plan Level shall be published at least once in a newspaper of general circulation, and shall remain in effect until the Board otherwise declares, as provided herein.

Section 6: EXCEPTIONS.

The General Manager of the Agency is hereby authorized to allow exceptions from the application of any provision of this Ordinance, due to exceptional circumstances, if the General Manager determines that the application of a provision would either: (a) cause an unnecessary and undue hardship to the water user or to the public; or (b) jeopardize the health, sanitation, fire protection or safety of the water user or of the public. Such exceptions may be granted only upon application therefor. Upon granting any such exception, the General Manager may impose any conditions the General Manager determines to be appropriate in the circumstance.

Section 7: CRIMINAL PROCEEDINGS FOR VIOLATION.

The Board hereby determines that, pursuant to Water Code Section 377, it shall be a misdemeanor for any water user to use or apply water contrary to or in violation of any mandatory restriction or requirement established by this Ordinance and, upon conviction thereof, that water user shall be punished by imprisonment in the County jail for not more than 30 days or by a fine of not more than $1,000, or by both such fine and imprisonment.

Section 8: CIVIL PENALTIES AND ENFORCEMENT.

In addition to criminal penalties, violators of the mandatory provisions of this Ordinance shall be subject to civil penalties and enforcement action by the Agency staff, as follows:

8.1 First Violation.

For a first violation, the Agency staff may serve a written complaint to impose civil penalties to the water user or account holder who is violating the provisions of this Ordinance or violating the water use restrictions imposed by the State Water Resources Control Board. Upon receipt of the complaint for civil penalty, the water user or account holder shall have seven days to request, in writing, a hearing. If no hearing is requested or at the hearing it is determined that the water user or account holder has committed a violation, a civil penalty of $50 for a first violation at a single family residence and $100 for a first violation at a multi-family residential, commercial or institutional establishment may be levied.

8.2 Second Violation.

For a second violation of this Ordinance or water use restrictions imposed by the State Water Resources Control Board within any 12-month period, the Agency staff may serve a written complaint to impose civil penalties on the water user or account holder with written notice thereof, and the water user or account holder shall have the same period of time set forth in Section 8.1 to request a hearing. For a second violation within any 12-month period the civil penalty shall be $100 at a single family residence and $200 at a multi-family residential, commercial or institutional establishment.

8.3 Third Violation.

For a third violation of this Ordinance and for each subsequent violation within any 12-month period, the water user or account holder shall be subject to civil penalties and shall have the same opportunity to request a hearing in the manner set forth in Section 8.1. For a third and each subsequent violation within any 12-month period, the civil penalty shall be $250 at a single family residence and $500 at a multi-family residential, commercial or institutional establishment.

8.4 Collection of Civil Penalties.

Civil penalties may be billed to the violating water user by separate invoice, or may be added to the water user's invoice for water service as a separately itemized charge as determined by Agency staff. Civil penalties that are not paid may become a lien on the affected property in a manner provided by law to secure payment for water service. In addition, the Agency staff shall be authorized to discontinue water service for any violation of this Ordinance and for failure to pay a civil penalty within the period of time provided by the Agency staff for payment of invoices for water service. In the

event that service is terminated, such service shall remain terminated for a period of at least 48 hours, unless such period is extended by action of the Board of Directors. A charge shall be imposed for reconnection and restoration of service in the amount normally charged by the Agency for restoration of service. Such restoration of service shall not be made until the General Manager has determined that the water user has provided adequate assurances that future violations of this Ordinance by such water user will not occur.

8.5 Service of Complaint.

The complaint for civil penalties may be served personally, by mail or by affixing a copy of the complaint to the front entry of the property. The complaint shall contain, in addition to the facts of the violation, a statement of the possible civil penalties for the violation and a statement informing the water user of his or her right to a hearing.

8.6 Hearing and Appeal.

Within seven days of receipt of a complaint for civil penalties, the water user may request a hearing to present evidence that a violation did not occur. Within seven days after receipt of a written request for a hearing, the Executive Committee of the Board will schedule a hearing for the water user to present evidence that a violation did not occur. The hearing shall take place no sooner than 30 days after the complaint has been issued to the violator, unless requested at an earlier date by the violator. The decision of the Executive Committee following the hearing shall be final.

Section 9: CUMULATIVE REMEDIES.

The remedies for violations set forth in this Ordinance shall be cumulative to any other remedies available to the Agency according to law.

Section 10: SEVERABILITY.

If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional or invalid, such determination shall not affect the validity of the remaining provisions of this Ordinance.

Section 11: PUBLICATION.

The Secretary of the Board of Directors of the Agency shall attest to the adoption of this Ordinance and shall cause the same to be published in a newspaper of general circulation which is printed, published and circulated in the Agency within ten days after its adoption.

Section 12: EFFECTIVE DATE.

This Ordinance shall take effect immediately upon adoption and shall supersede the provisions of Ordinance No. 65.

ADOPTED this 15th day of June, 2021.

Kristin Bloomer

Kristin Bloomer, President

ATTEST:

Joseph K. Stuart

Joseph K. Stuart, Secretary-Treasurer

City of Indio



City of Indio
Water Shortage Contingency Plan

Final Draft

prepared on behalf of

City of Indio
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May 11, 2026

RINCON CONSULTANTS

INDIO

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Attachment A. City of Indo Municipal Code

1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the City of Indio (hereafter referred to as *Indio*) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the City Council, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes the Indio's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and City Council are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant Indio the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

Indio is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook(DWR 2026).

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for recharge include:

- Colorado River water that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- State Water Project (SWP) water that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct to for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

Drought conditions are not expected to affect CVWD's Colorado River water supply due to the agency's high priority allocation. Colorado River water is not a direct source of urban water supply; it is used for groundwater replenishment and non-potable irrigation uses. If a reduction in Colorado River water supply occurred, CVWD would initially reduce deliveries to groundwater replenishment projects. Subsequent reductions in delivery would be applied by the CVWD Board of Directors as provided in CVWD's Canal Water Shortage Contingency Plan, Chapter 3.10, Article XII of CVWD's administrative code (CVWD 2026).

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for Indio is presented in Section 7.7 of Indio's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how Indio intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible.

3 Annual Water Supply and Demand Assessment Procedures

Indio is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and present an assessment of the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that Indio will use to prepare the Annual Assessment. The procedures defined in this section will allow Indio to follow a consistent annual procedure for making the determination of whether to activate the WSCP.

3.1 Decision Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	Indio staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, individual agencies may elect to activate their WSCP at different shortage levels than other participating agencies.
April	Indio staff will make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, Indio management will present the recommendation to the governing board for consideration. If the governing board decides to implement the WSCP, it will provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	Indio staff prepares the Annual Assessment and submits to DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

Indio will rely on locally applicable criteria for each annual assessment. These criteria will include the findings of the annual reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. Findings from the annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated.

3.2.2 Water Supply

Indio's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

Indio will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4 of each agency's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

Indio will describe the anticipated use of water supplies for the coming year, with the anticipation that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

Indio will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. Indio will verify that its system of wells, pipelines, pump stations, and storage tanks have adequate capacity to deliver the anticipated demands. Indio will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

Indio will describe any specific locally applicable factors that could influence or disrupt supplies. Indio will also describe unique local considerations that are considered as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

The RUWMP participating agencies have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are identified in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Narrative Summary of Shortage Response Actions
1	Up to 10%	Normal water supplies	Mandatory prohibitions defined by the state, ongoing rebate programs
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to Indio. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. Indio may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by Indio at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, Indio continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. CVWD and DWA collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, the RUWMP participating agencies continue to implement water conservation measures and increase use of recycled water usage to reduce groundwater demand. Indio's demand management programs are described in Indio's chapter of the RUWMP.

In their WSCP, agencies have the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Other Actions	Volume	Medium	In areas where recycled water or other non-potable supply is available, customers could be mandated to use these supplies and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency to tailor its response to the unique characteristics of its service area. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- The benefits of tiered rates in allowing customers to pay less for their basic efficient use and more for excessive use.
- A balanced program should include incentives (such as expanded rebates for turfgrass removal) as well as penalties (such as drought rates).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, Indio may implement some or all of the actions as needed, depending on actual conditions. As described in Section 7.9 of Indio's chapter of the RUWMP, Indio implements demand management measures (DMMs) to increase water use efficiency. The RUWMP includes descriptions of water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation.

Indio implements mandatory restrictions on water use through the City Municipal Code, Title 5 Public Works, Chapter 54 Water, Subchapter 4 Water Conservation, as reflected in Attachment A. This code includes all of the demand reduction actions listed in Table 4 and describe penalties addressed in Section 6.

Table 4. DWR 8-3R: Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	A	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	No
	B	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	No
	C	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	No
	D	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	No
	E	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	No
	F	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	No
	G	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	H	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	I	City shall discourage overseeding.	Volume	Low	No
	J	City shall provide rebates for landscape efficiency.	Volume	High	No
	K	City shall offer water use surveys/audits.	Volume	Medium	No
	L	City shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	A	Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	B	Restaurants can serve water only on request.	Volume	Low	Yes
	C	City shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	D	City shall actively discourage overseeding.	Volume	Medium	No
	E	Outdoor water budget shall be reduced by 10%.	Volume	Medium	Yes
	F	City shall expand public information campaign.	Volume	Medium	No
	G	City shall increase water waste patrols.	Volume	Medium	Yes
	H	City shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	A	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	B	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	C	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	D	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	E	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	F	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	G	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	H	City shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new State laws regarding limitations on such enforcement.	Volume	Low	No
	I	City shall strengthen customer billing messages with use comparisons.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
	J	City shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	K	City shall expand rebate programs.	Volume	Medium	No
4	A	Turfgrass landscapes shall not be watered, except where subterranean or non-potable water systems are used.	Volume	High	Yes
	B	City shall implement or modify drought rate surcharge.	Volume	High	Yes
	C	City shall reduce outdoor water budget by up to 25%.	Volume	High	Yes
	D	City shall expand public information campaign.	Volume	Medium	No
5	A	Watering turfgrass is prohibited.	Volume	High	Yes
	B	The use of misting systems is prohibited.	Volume	Medium	Yes
	C	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	D	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	E	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	F	Agency shall reduce outdoor water budget by up to 50%.	Volume	High	Yes
	G	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes
6	A	Commercial nurseries shall discontinue all use of potable water for watering and irrigation.	Volume	Low	Yes
	B	Watering of livestock is permitted as necessary.	Volume	N/A	Yes
	C	Outdoor water use is prohibited.	Volume	High	Yes
	D	Initial filling of swimming pools or landscaping ponds shall be prohibited.	Volume	Medium	Yes
	E	Restaurants must use disposable cups, plates, and utensils.	Volume	Low	Yes
	F	Mandatory rationing shall be implemented.	Volume	High	Yes

5.3 Operational Changes

Indio has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4. Indio may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

Indio has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in the agency's Emergency Response Plan (ERP). Indio's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available.

Indio's ERP outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

Five of the RUWMP participating agencies collaborate on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because the agencies use local groundwater to meet urban demands, the agencies could continue to meet short term urban demands with groundwater production. The agencies have installed backup generators at key water production facilities to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA. CVWD has plans to make emergency repairs to the Coachella Canal. CVWD staff receives regular Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and drills are conducted routinely. CVWD remotely monitors the status of most key facilities at CVWD headquarters, which enables it to detect areas affected by disasters.

RUWMP participating agencies also participate in ICS training and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. It could also lead to increased groundwater pumping by non-urban users who normally use imported canal water. Indio would implement levels of this WSCP as needed if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

Indio is a participant in the Riverside County Multi-Jurisdiction Local Hazard Mitigation Plan (MJLHMP) which was updated in 2025 (Riverside County 2023). The Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies and actions to reduce the impacts of a seismic event. The RUWMP

participating agencies continue to include seismic risk assessment in their planning process for system improvements.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be a normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assume all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. Indio will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of Indio's service area. Indio will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

At all times	Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update message platform to reflect conditions, District response, and needed actions from public	Update campaign and messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update campaign and messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update campaign and messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce emergency status to key stakeholders and general public (e.g., News release, social media, etc.)
Standard coordination with MWD and regional partners	Include increased conservation messages on website and in standard outreach efforts; provide regular condition updates to stakeholders/media	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to stakeholders/media	Supplement Level 2 outreach with additional tactics as needed; provide regular updates to stakeholders/media on conditions	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to stakeholders/media on conditions
Board reports on public communication and water-use efficiency outreach activities at least annually.	Enhance promotion of ongoing WUE programs/tools; deploy targeted advertising	Conduct issue briefings with elected officials, other key civic and business leaders	Conduct specialized outreach to HOAs and local organizations	Suspend promotion of long-term WUE programs/tools to focus on imminent needs
	Initiate regular Board reports on campaign efforts	Increase promotion of ongoing WUE programs/tools	Promote available water assistance resources for vulnerable populations; specialized outreach to impacted industries	Continue enhanced coordination with neighbor agencies and local/state/federal policy makers as needed (e.g. daily or weekly briefings or email updates, etc.)

7 Compliance and Enforcement

This section describes how Indio will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6 and are described in detail in the City Municipal Code § 54.061 Penalties as adopted through Ordinance 1662 and 1762.

Table 6. Enforcement Actions

Water Shortage Level	First Violation	Second Violation (within 12 months)	Third Violation (within 12 months)	Subsequent Violations	Additional Information
1-6	Written notice by regular mail	Written notice by regular mail and surcharge of 25% of the person's water bill	Written notice by regular mail and surcharge of 50% of the person's water bill	Written notice by regular mail and surcharge of 50% of the person's water bill	If water wasting continues, water service may be shut off and misdemeanor charges filed, at the discretion of the City Manager.

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that Indio relies upon to implement the shortage response actions and the associated enforcement actions.

Chapter 54 of the Indio Municipal Code provides the legal authority to enforce water service conditions, including the WSCP, as described in Attachment A.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, Indio shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

Indio shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558).

Table 7 contains a list of contacts for all cities or counties for which the RUWMP participating agencies provide service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Imperial County	Office of Emergency Services	X					
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of La Quinta	Emergency Management Division	X			X	X	
City of Indio	Emergency Services Coordinator	X	X		X		
City of Coachella	Emergency Services Coordinator	X	X		X		
City of Palm Desert	Emergency Services Coordinator	X					
City of Cathedral City	Emergency Manager	X		X			
City of Indian Wells	Emergency Services Coordinator	X					
City of Rancho Mirage	Emergency Services Coordinator	X					
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to Indio of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Financial Impacts and Mitigation Action

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions

- Economic impacts associated with water-dependent businesses in the service area Potential mitigation measures include:
- Triggering of drought rate structures or surcharges
- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced water production)
- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge
- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative source of funding, such as state or federal grants or loans
- Other financial management mechanisms

Indio will monitor financial conditions during a water shortage and take appropriate actions as needed. Indio maintains financial reserves that can be used to continue operations during a period of reduced water sales. Indio has the ability to increase water rates or implement surcharges or penalties to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. Indio may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

10 Monitoring and Reporting

This section describes how Indio will monitor and report on implementation of the WSCP. Indio will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving their intended water use reduction purposes. Indio will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. Indio will gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies as needed

Indio will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and water connection point is also metered, and production records will be used to observe trends in water production. Levels in reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks.

Indio staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

For agencies that have budget-based rates, the consumption by customers will be compared to the water budgets to determine effectiveness of response actions. For agencies without defined water budgets for each customer, the consumption records will be aggregated by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

Indio will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If Indio determines that the shortage response actions are not effective in producing the desired results, Indio will initiate a process to refine the WSCP. Indio will consider the addition of new shortage response actions or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from agency staff, customers, industry experts, and the general public. The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while most pools and spas (recreational water features) use potable water for health and safety considerations. However, this distinction does not apply to the hot mineral spring pools and spas throughout the Desert Hot Springs area; while they are recreational, they also do not rely on potable water.

Pursuant to the City Municipal Code under Chapter 54, Subchapter 4 Water Conservation, water features definitions are provided and as reflected in Table 4, different stages may implement various prohibitions and restrictions. For example, under Stage I – Normal water supplies, draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair. As discussed in Section 6, compliance and enforcement procedures are in place under the code that could result in penalties.

13 Plan Adoption, Submittal, and Availability

This 2025 WSCP was presented for adoption at the City Council public meeting on June 17, 2026. Notifications were sent to the cities and counties as described in the 2025 RUWMP. To comply with the notice to the public, Indio published notices in the local newspaper at least two weeks in advance with five days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on June 17, 2026, by City Council Resolution included in the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at Indio’s office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within Indio’s service area within 30 days of adoption.

Based on DWR’s review of the WSCP, Indio will make any amendments in its adopted WSCP, as required and directed by DWR. If Indio revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Attachment A. City of Indio Municipal Code

§ 54.050. Purpose and intent. [Ord. 1662, 10-15-2014]

The purpose of this article is to establish voluntary and imposed water conservation standards intended to alter behavior related to water use efficiency and further establishes four stages of action to be implemented during times of declared water shortage or declared water shortage emergency, with increasing restrictions on water use in response to worsening drought or emergency conditions and decreasing supplies. As used herein, the term "article" shall refer to and mean §§ 54.050 through 54.063.

§ 54.051. Authority of the City Manager. [Ord. 1662, 10-15-2014]

(A) The City Manager is hereby authorized and directed to implement the applicable provisions of this article in order to protect the public health, safety and welfare.

(B) The City Manager is hereby authorized and directed to implement the stages of action as set forth in the Urban Water Management Plan, Water Shortage Contingency Plan, developed and adopted pursuant to Cal. Water Code §§ 10620 et seq., (“Water Shortage Contingency Plan”) pursuant to the provisions of this article. The Water Shortage Contingency Plan includes any amendments that may be adopted from time to time.

§ 54.052. General prohibition; applicability. [Ord. 1662, 10-15-2014]

(A) No person shall use or permit the use of potable water provided by the City of Indio through the Indio Water Authority (“city”) for residential, commercial, industrial or any other purpose in violation of any provision of this article or in excess of the amount permitted by the stages of action of the Water Shortage Contingency Plan set forth in this article. The provisions of this article shall apply to all persons, customers and property served by the city wherever situated.

(B) The provisions of this article do not apply to uses of water necessary to protect the public health and safety or for essential government services, such as police, fire, and other similar emergency services.

(C) The provisions of this article do not apply to the use of reclaimed or recycled water.

§ 54.053. Determination of water shortage. [Ord. 1662, 10-15-2014]

A water supply shortage exists when the City Manager determines that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. When the City Manager finds that such conditions have been satisfied, he or she shall recommend to the City Council that a resolution to declare the appropriate stage of action be adopted. The City Manager has discretion to determine that certain mandatory restrictions may be appropriate for implementation at an earlier stage and may recommend such restriction for implementation.

§ 54.054. Procedures. [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

(A) In the event the City Manager determines that water supply conditions require the

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implementation of Stage II, Stage III, Stage IV, Stage V, or Stage VI of the Water Shortage Contingency Plan, or parts thereof, the following actions shall be taken:

(1) The City Manager shall declare, at a noticed public hearing of the City Council, implementation of the appropriate stage of action as set forth in §§ 54.056 through 54.060.

(2) The City Council shall adopt a resolution affirming the declaration made by the City Manager.

(3) Within ten days after adoption of the resolution, the city shall publish a copy of the resolution in a newspaper used for the publication of official notices.

(B) None of the restrictions contained in Stage II, Stage III, Stage IV, Stage V, or Stage VI of the Water Shortage Contingency Plan, shall be applicable and subject to enforcement until the City Council adopts a resolution imposing the restrictions at a duly noticed public hearing. Such restrictions shall continue until repealed by resolution of the City Council.

(C) The City Manager shall direct staff to provide public education material and notices to all water users advising them of the actions taken by the City Manager and the water use restrictions included in the water stage of action.

(D) In the event that the City Manager declares, and the City Council approves, implementation of Stage VI of the Water Shortage Contingency Plan ("Severe Shortage or Catastrophic Incident"), the City Manager may also request specific reductions in water allocations to conserve water for the greatest public benefit. The City Council shall declare a Water Emergency in the manner and on the grounds provided in Cal. Water Code § 350 before the City Manager's requested reductions may take effect.

§ 54.055. Stage I — Normal water supplies (up to 10% shortage range). [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

Stage I represents the normal operating condition where all persons are advised to use water wisely and practice water conservation measures to avoid wasting water. The City Manager or his or her designee has authority to declare a Stage I state of action without further action of the City Council. The following prohibitions and actions shall take effect in the event that the City Manager declares Stage I stage of action:

(A) Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures shall be prohibited.

(B) Using any water in a fountain or other decorative water feature shall be prohibited, except where the water is part of a recirculating system.

(C) Applying water to driveways, sidewalks, concrete or asphalt shall be prohibited, unless to address immediate health and safety needs. Reasonable pressure washer or water broom use shall be permitted.

(D) Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches

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shall be prohibited.

(E) Using a hose to wash a vehicle, windows, or solar panels, shall be prohibited, unless an automatic shut-off nozzle or pressure washer is used.

(F) Broken sprinklers shall be repaired within five business days of notification by city, and leaks shall be repaired as soon as practical.

(G) Draining and refilling of private swimming pools shall be discouraged, unless necessary for health and safety or leak repair.

(H) Hotels shall provide guests the option of choosing not to have towels and linens laundered daily.

(I) City shall discourage overseeding.

(J) City shall provide rebates for landscape efficiency.

(K) City shall offer water use surveys/audits.

(L) City shall provide rebates on plumbing fixtures and devices.

§ 54.056. Stage II — Slightly limited water supplies (up to 20% shortage range). [Ord. 1662, 10-15-2014; Ord. 1681, 10-21-2015; Ord. 1762, 7-21-2021]

The following prohibitions and actions shall take effect in the event that the City Manager declares a Stage II stage of action:

(A) Outdoor water use shall be prohibited during daylight hours for spray irrigation, except for leak checks or a city-approved conservation alternative plan.

(B) City shall encourage use of non-potable water for construction, if available.

(C) City shall actively discourage over-seeding.

(D) Restaurants shall serve water only upon request.

(E) Outdoor water budget shall be reduced by 10%.

(F) City shall expand its public information campaign.

(G) City shall increase water waste patrols.

(H) City shall reduce frequency of hydrant and dead end line flushing.

§ 54.057. Stage III — Moderately limited water supplies (up to 30% shortage range). [Ord. 1662, 10-15-2014; Ord. 1673, 5-20-2015; Ord. 1762, 7-21-2021]

The following prohibitions and actions shall take effect in the event that the City Manager declares a Stage III stage of action:

(A) Outdoor water use shall be allowed three days a week for spray irrigation (Monday, Wednesday, Friday).

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(B) Drip or subterranean irrigation shall be allowed seven days per week during non-daylight hours.

(C) Commercial nurseries shall use water only on alternate days during non-daylight hours for outside operations.

(D) Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features shall not to be filled or replenished.

(E) Swimming pools or landscaping ponds shall not be filled, unless necessary for health and safety or leak repair.

(F) City shall encourage counties, cities, Homeowner Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turf areas and to otherwise comply with new state laws regarding limitations on such enforcement.

(G) Commercial car washes shall use recycled water or recirculating water systems.

(H) Spray irrigation of medians and parkways shall be prohibited.

(I) City shall strengthen customer billing messages with use comparisons.

(J) City shall implement water use audits targeted to key customers to ensure compliance with directives.

(K) City shall expand rebate programs.

§ 54.058. Stage IV — Limited water supplies (up to 40% shortage range). [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

The following prohibitions and actions shall take effect in the event that the City Manager declares a Stage IV stage of action:

(A) Turfgrass landscapes shall not be watered, except where subterranean or non-potable watering systems are used.

(B) City shall implement a moratorium on new turfgrass landscaping.

(C) City shall implement or modify drought rate surcharge.

(D) Outdoor water budget shall be reduced by up to 25%.

(E) City shall expand public information campaign.

§ 54.059. Stage V — Significantly limited water supplies (up to 50% shortage range). [Ord. 1762, 7-21-2021]

The following prohibitions and actions shall take effect in the event that the City Manager declares a Stage V stage of action:

(A) Watering turfgrass shall be prohibited.

(B) Turfgrass at parks and school grounds shall be watered with recycled water, if available, or

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not at all.

(C) Golf course greens and school grounds shall be watered no more than two times per week during non-daylight hours with recycled water, or not at all.

(D) Trees, desert plants and shrubs shall be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.

(E) Outdoor water budget shall be reduced by up to 50%.

(F) City shall implement a moratorium or net zero demand on new connections.

(G) New construction meters for water service shall not be issued.

(H) Water service through construction meters shall not be made available.

(I) The use of misting systems shall be prohibited.

§ 54.060. Stage VI — Severe shortage or catastrophic incident (greater than 50% shortage range). [Ord. 1762, 7-21-2021]

The following prohibitions and actions shall take effect in the event that the City Manager declares a Stage VI stage of action:

(A) Commercial nurseries shall discontinue all use of potable water for watering and irrigation.

(B) Watering of livestock shall be permitted, as necessary.

(C) Outdoor watering shall be prohibited.

(D) Initial filling of swimming pools or landscaping ponds shall be prohibited.

(E) Restaurants shall use disposable cups, plates, and utensils.

(F) Mandatory rationing shall be implemented.

§ 54.061. Penalties. [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

(A) Violation of the water use restrictions of §§ 54.056 through 54.060 shall be penalized as follows:

(1) First violation. The Indio Water Authority General Manager or his designee ("General Manager") shall issue a written notice of the fact of a first violation to the person.

(2) Second violation. For a second violation during any one water shortage declaration, the General Manager may impose a surcharge in the amount equal to 25% of the person's water bill.

(3) Third violation. For a third violation during any one water shortage declaration, the General Manager may impose a surcharge in the amount equal to 50% of the person's water bill.

(4) Fourth and subsequent violation. For a fourth and each subsequent violation during any

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one water shortage declaration, the General Manager may install a flow restricting device of one (1) gallon per minute capacity for services up to one and one-half (1-1/2) inch size, and comparatively sized restrictors for larger services, on the service of the person at the premises at which the violation occurred for a period of not less than forty-eight (48) hours. The city shall charge the person the reasonable costs incurred for installing and for restoration of normal service. Normal service shall not be restored until all the account has been made current and all charges have been paid. In addition, the surcharge provided in division (A)(3) of this section shall continue to apply.

(B) In addition to any penalties imposed herein, a fourth or subsequent violation during any one water shortage declaration of the water use restrictions of §§ 54.056 through 54.060 shall also constitute a misdemeanor unless, at the discretion of the City Prosecutor, the violation is charged as an infraction.

(C) Notice of the violation shall be provided as follows:

(1) Notice of a first violation shall be given in writing by regular mail.

(2) Notice of second or subsequent violations shall be given in writing in the following manner:

(a) By giving the notice to the customer personally; or

(b) If the customer is absent from or unavailable at the premises at which the violation occurred, by leaving a copy with some person of suitable age and discretion at the premises and sending a copy through the regular mail to the address at which the customer is normally billed; or

(c) If a person of suitable age or discretion cannot be found, by affixing a copy in a conspicuous place at the premises at which the violation occurred and also sending a copy through the regular mail to the address at which the customer is normally billed.

(3) The notice shall contain a description of the facts of the violation, a statement of the possible penalties for each violation, and a statement informing the customer of the right to a hearing on the merits of violation pursuant to § 54.063.

§ 54.062. Relief from compliance. [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

(A) A person may file an application for relief from any provision of this article. The City Manager shall develop such procedures as necessary to resolve such application for relief, and shall take reasonable steps to resolve the application for relief. The decision of the City Manager shall be final. The City Manager may delegate these duties and responsibilities under this section as appropriate.

(B) The application for relief may include a request that the person be relieved, in whole or in part, from the water use restrictions of this article.

(C) In determining whether to grant relief and the nature of any relief, the City Manager shall take into consideration all relevant factors including, but not limited to, the following:

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(1) Whether the applicable reduction in water consumption will result in unemployment;

(2) Whether additional persons have been permanently added to the household;

(3) Changes in vacancy factors in multi-family housing;

(4) Increased number of permanent employees in commercial, industrial, and governmental offices;

(5) Increased production requiring increased water;

(6) Water uses during new construction;

(7) Adjustments to water use caused by emergency health or safety hazards;

(8) First filling of a permit-constructed swimming pool; and

(9) Water use necessary for reasons related to family illness or health.

(D) In order to be considered, an application for relief must be filed with the General Manager within 20 days from the date of the mailing of the water bill which is the subject matter of the application. No relief shall be granted unless the person shows that he or she has achieved the maximum practical reduction in water consumption other than in the specific areas in which relief is being sought.

§ 54.063. Hearing regarding violations. [Ord. 1662, 10-15-2014; Ord. 1762, 7-21-2021]

(A) Any person receiving notification of violation of this article may request a hearing by filing an appeal along with the appeal fee with the General Manager within 15 days of mailing or other delivery of the notice of violation. The appeal fee shall be in an amount set by City Council resolution.

(B) The person's timely written request for a hearing shall automatically stay installation of a flow-restricting device on any customer's premises until the Administrative Hearing Officer renders his or her decision.

(C) The person's timely written request for a hearing shall not stay the imposition of a surcharge. If it is determined that the surcharge was wrongly charged and paid, the Indio Water Authority shall credit any amount due to the unpaid water bill.

(D) The decision of the Administrative Hearing Officer shall be final.

§ 54.064.1. Landscape and water conservation. [Ord. 1528, 3-5-2008; Ord. 1563, 12-16-2009; Ord. 1762, 7-21-2021]

(A) Water waste prevention. Water waste from inefficient landscape irrigation allowing runoff, low head drainage, overspray or other conditions where water flows onto roadways, adjacent property or non-irrigated property is prohibited.

(B) Prohibition on certain covenants conditions and restrictions, all development. It shall be unlawful for covenants, conditions and restrictions of any development project or homeowners association to require the use of water-intensive landscaping or prohibit low

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water use landscaping.

(C) Landscaping equipment.

(1) Water meters. Separate landscape water meters shall be installed for all projects except for single family homes. All commercial, industrial and apartment buildings must have separate meters for landscaping installed by January 1, 2013.

(a) All meters are the property of the Indio Water Authority.

(b) Consumers, contractors, or any other person shall not tamper with or make inoperable any permanent meter that is installed to record water usage.

(c) All new construction shall have separate landscaping meters.

(d) Portable meters shall be installed on hydrants to record water use for construction use, air quality dust control or any other water use deemed acceptable by the Indio Water Authority. Meters shall be obtained from the Indio Water Authority.

(e) Only Indio Water Authority meters shall be used to record water usage in the Authority's service area.

(2) Controllers. Automatic evapotranspiration, ET, controller systems or moisture sensing devices shall be required for all irrigation systems and must be able to accommodate all aspects of the design.

(3) Valves. Plants which require different amounts of water shall be irrigated by separate valves. If one valve is used for a given area, only plants with similar water use shall be used in that area. Anti-drain (check) valves shall be installed in strategic points to minimize or prevent low-head drainage.

(4) Sprinkler heads. Heads and emitters shall have consistent application rates within each control valve circuit. Sprinkler heads shall be selected for proper area coverage, application rate, operating pressure, adjustment capability, and ease of maintenance.

(5) Rain sensing override devices. Rain sensing override devices shall be required on all irrigation systems.

(6) Soil moisture sensing devices. It is recommended that soil moisture sensing devices be considered where appropriate.

(7) Vertical stops. Sprinklers must be equipped with vertical stops installed just below the sprinkler head which automatically shut off water to a broken sprinkler head.

(8) Backflow devices and valves. No consumer, contractor or any other person shall tamper with backflow devices or distribution valves without consent of the Indio Water Authority. Repairs of backflow devices shall be done by companies approved and authorized by the Indio Water Authority.

(9) Master values. Master values must be installed on all systems with a flow sensor for automatic shut off of the station based on 10% over flow rate.

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(D) Remedies nonexclusive. Enforcement remedies provided in this chapter are not exclusive. The city may take all, or any combination of these actions against a person, as well as any other enforcement remedies which the city may have available.

(E) Administrative remedies.

(1) Notice of violation. Whenever an authorized enforcement official determines there has been a violation of this chapter, the official may serve a notice that enumerates the violations found and order compliance by a certain date.

(2) Administrative compliance order. Whenever an authorized enforcement official determines that a violation of this chapter has occurred, the official may require the submission of a detailed compliance schedule, including the actions that will be taken to correct said violation(s) or prevent future recurrences of said violation(s), to the authorized enforcement official for approval. A compliance order shall not relieve the violator of liability for any violation, including any continuing violation.

(3) Cease and desist order. Whenever an authorized enforcement official determines that a violation of this chapter is occurring, or that past violations are likely to recur, the authorized enforcement official may issue an order to cease and desist and take such appropriate remedial or preventive action as may be needed to properly address a continuing or potential violation, including halting operations and/or terminating the discharge.

(4) Termination of service. If the violation continues after the issuance of a cease and desist order, irrigation service to the facility may be turned off and remain off until corrective actions are taken to the satisfaction of the authorized enforcement official.

(5) Administrative civil penalties. The city may serve an administrative complaint on any person who has violated, or continues to violate, any provision of this chapter. Each day on which each instance of noncompliance shall occur or continue shall be deemed a separate and distinct violation. Procedures for application of administrative civil penalties shall be in accordance with standard procedures adopted by the city.

(F) Violations deemed a public nuisance.

(1) In addition to the penalties hereinbefore provided, any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to the public health, safety and welfare, and is declared and deemed a nuisance, and may be summarily abated and/or restored by any authorized enforcement official, and/or civil action to abate, enjoin or otherwise compel the cessation of such nuisance may be taken by the city.

(2) If any violation of this chapter constitutes a seasonal and recurrent nuisance, the city shall conduct a hearing to consider revocation of a permit by serving notice to the permittee a notice of intention to revoke. The city will set forth the grounds for the hearing and designate a time and a place for the hearing.

(G) Guidelines adopted, procedure for amendment and modification. The Indio Water Authority Board and City Council shall from time to time consider and adopt “Landscape and Water

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Conservation Guidelines" as Section 4 of the City's "Development Services Procedural Guidelines." City and Indio Water Authority staff shall apply these guidelines to all new development and may amend or modify same administratively as deemed necessary and appropriate by the City Manager/Executive Director or his or her designee. Within 90 days of approval of any administrative amendment or modification of these guidelines, the City Manager/Executive Director shall present a summary of same to the City Council and the Indio Water Authority Board for review and ratification at a public meeting.

§ 54.064.2. Water efficient landscape development standards. [Ord. 1684, 1-20-2016; Ord. 1762, 7-21-2021]

(A) This section shall apply to the following landscape projects:

(1) New development projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building, landscape permit, plan check or design review;

(2) Renovated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review; and

(3) Existing landscapes installed before January 1, 2010 and over one acre in size, except that such landscapes shall be limited to complying with only those programs that the city or Indio Water Authority may adopt from time to time, which may include, but not be limited to, irrigation water analyses, irrigation surveys and irrigation audits that verify landscape water use does not exceed the maximum applied water allowance (MAWA) for existing landscapes. The maximum applied water allowance (MAWA) for existing landscapes shall be calculated as: MAWA = (.70) (ETo) (LA) (.62/748) unless landscape plans were submitted and approved under a stricter water conserving ordinance.

(B) This section does not apply to:

(1) Registered local, state or federal historical sites;

(2) Ecological restoration projects that do not require a permanent irrigation system;

(3) Mined-land reclamation projects that do not require a permanent irrigation system; or

(4) Plant collections, as part of botanical gardens and arboretums open to the public.

(C) Prior to installation, a landscape documentation package shall be submitted to the city for review and approval for all landscape projects subject to the provisions of this section. Any landscape documentation package submitted to the city shall comply with the provisions of the City of Indio/Indio Water Authority's Landscape and Irrigation System Design Criteria or, where service is provided by another water purveyor, the relevant landscape and irrigation system design criteria adopted by that water purveyor.

(D) Verification of compliance of the landscape installation with the approved plans shall be obtained through a certification of completion issued by the Indio Water Authority or other water purveyor in conjunction with a certificate of use and occupancy or permit process. The

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certificate of completion shall be filed with the Development Services Department.

(E) The city may delegate to, or enter into a contract with, another public agency, including the Indio Water Authority, to implement, administer, and/or enforce any of the provisions of this chapter on behalf of the city.

(F) The "City of Indio/Indio Water Authority Landscape and Irrigation System Design Criteria," attached as Appendix A to Ordinance No. 1684 and any amendments thereto, is hereby adopted and incorporated herein by reference as if fully set forth below. The Director of Development Services or Indio Water Authority General Manager may amend this Design Criteria from time to time in a manner consistent with the purpose and intent of this section. One copy of the Design Criteria shall remain on file in the Office of the City Clerk.

(G) The City Council may establish by resolution fees for the cost of reviewing and monitoring landscape documentation packages and landscape irrigation audits. The landscape documentation review fee shall be due at the time that the landscape documentation package is initially submitted to the city.

(H) A violation of this section, including any provision of the City of Indio/Indio Water Authority Landscape and Irrigation System Design Criteria may be subject to an administrative citation pursuant to Chapter 12 of this code, except that the amount of fine shall be $250 per violation.

(I) An applicant, property owner or designee of any applicable project may appeal decisions rendered pursuant to this section, other than the imposition of penalties, to the City Manager or his or her designee, in writing, within 15 days of notification of the decision. The City Manager's decision shall become final on the fifteenth day following service of written notification of said decision unless a timely appeal to the City Council is submitted to the City Clerk within 15 days of notification of the City Manager's decision. The City Council's decision shall be final upon its adoption.

(J) The requirements of this section apply in addition to other applicable landscape development standards contained in Title XV of this code, including but not limited to § 162.120. In the event of any conflict between this section and the provisions of Title XV, the provision that contains the more stringent landscaping water efficiency requirement(s) shall control.

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Mission Springs Water District



Mission Springs Water District
Water Shortage Contingency Plan

Final Draft

prepared on behalf of

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May 11, 2026

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MSWD Mission Springs Water District

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Attachment A. Legal Authority

1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the Mission Springs Water District (MSWD) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the MSWD governing board, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes the MSWD's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and MSWD governing board are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant MSWD the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

MSWD is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook(DWR 2026).

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for recharge include:

- Colorado River water that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- State Water Project (SWP) water that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct to for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

Drought conditions are not expected to affect CVWD's Colorado River water supply due to the agency's high priority allocation. Colorado River water is not a direct source of urban water supply; it is used for groundwater replenishment and non-potable irrigation uses. If a reduction in Colorado River water supply occurred, CVWD would initially reduce deliveries to groundwater replenishment projects. Subsequent reductions in delivery would be applied by the CVWD Board of Directors as provided in CVWD's Canal Water Shortage Contingency Plan, Chapter 3.10, Article XII of CVWD's administrative code (CVWD 2026).

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for MSWD is presented in Section 8.7 of MSWD's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how MSWD intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible..

3 Annual Water Supply and Demand Assessment Procedures

MSWD is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and present an assessment of the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that MSWD will use to prepare the Annual Assessment. The procedures defined in this section will allow MSWD to follow a consistent annual procedure for making the determination of whether to activate the WSCP.

3.1 Decision Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	MSWD staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, MSWD may elect to activate their WSCP at different shortage levels than other participating agencies.
April	MSWD staff will make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, MSWD management will present the recommendation to its Board for consideration. If the Board decides to implement the WSCP, it will provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	MSWD staff prepares the Annual Assessment and submits DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

MSWD will rely on locally applicable criteria for each annual assessment. These criteria will include the findings of the annual reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. Findings from the annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated.

3.2.2 Water Supply

MSWD's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

MSWD will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4 of MSWD's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

MSWD will describe the anticipated use of water supplies for the coming year, with the anticipation that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

MSWD will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. MSWD will verify that its system of wells, pipelines, pump stations, and storage tanks have adequate capacity to deliver the anticipated demands. MSWD will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

MSWD will describe any specific locally applicable factors that could influence or disrupt supplies. MSWD will also describe unique local considerations that are considered as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

MSWD, and the other RUWMP participating agencies, have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50-percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are identified in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Shortage Response Actions
1	Up to 10%	Normal water supplies	Mandatory prohibitions defined by the state, ongoing rebate programs
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to MSWD. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. MSWD may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by MSWD at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, MSWD continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. The RUWMP participating agencies collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA, through support of the other participating agencies, are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, MSWD continues to implement water conservation measures to reduce groundwater demand. MSWD's demand management programs are described in MSWD's chapters of the RUWMP.

MSWD has the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Other Actions	Volume	Medium	In areas where recycled water or other non-potable supply is available, customers could be mandated to use these supplies and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The Coachella Valley RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency to tailor its response to the unique characteristics of its service area. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- The benefits of tiered rates in allowing customers to pay less for their basic efficient use and more for excessive use.
- A balanced program should include incentives (such as expanded rebates for turfgrass removal) as well as penalties (such as drought rates).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, MSWD may implement some or all of the actions as needed, depending on actual conditions. As described in Section 8.9 of MSWD's chapter of the RUWMP, MSWD implements demand management measures (DMMs) to increase water use efficiency. The RUWMP includes description of water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation. MSWD prepared and implements the 2024 Water Conservation Master Plan also described in Section 8.9.

Table 4. Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	1.1	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	No
	1.2	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	No
	1.3	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	No
	1.4	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	No
	1.5	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	No
	1.6	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	No
	1.7	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	1.8	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	1.9	Agency shall discourage overseeding.	Volume	Low	No
	1.10	Agency shall provide rebates for landscape efficiency.	Volume	High	No
	1.11	Agency shall offer water use surveys/audits.	Volume	Medium	No
	1.12	Agency shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	2.1	Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	2.2	Restaurants can serve water only on request.	Volume	Low	Yes
	2.3	Agency shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	2.4	Agency shall actively discourage overseeding.	Volume	Medium	No
	2.5	Agency shall reduce outdoor water budget by 10%	Volume	Medium	Yes
	2.6	Agency shall expand public information campaign.	Volume	Medium	No
	2.7	Agency shall increase water waste patrols.	Volume	Medium	Yes
	2.8	Agency shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	3.1	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	3.2	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	3.3	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	3.4	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	3.5	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	3.6	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	3.7	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	3.8	Agency shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new	Volume	Low	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
		State laws regarding limitations on such enforcement.			
	3.9	Agency shall strengthen customer billing messages with use comparisons.	Volume	Medium	No
	3.10	Agency shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	3.11	Agency shall expand rebate programs.	Volume	Medium	No
4	4.1	Turfgrass landscapes may not be watered except where subterranean or non-potable water systems are used.	Volume	High	Yes
	4.2	Agency shall implement or modify drought rate surcharge.	Volume	High	Yes
	4.3	Agency shall reduce outdoor water budget by up to 25%.	Volume	High	Yes
	4.4	Agency shall expand public information campaign.	Volume	Medium	No
5	5.1	Watering turfgrass is prohibited.	Volume	High	Yes
	5.2	The use of misting systems is prohibited.	Volume	Medium	Yes
	5.3	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	5.4	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	5.5	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	5.6	Agency shall reduce outdoor water budget by up to 50%.	Volume	High	Yes
	5.7	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes
6	6.1	Commercial nurseries shall discontinue all watering and irrigation. Watering of livestock is permitted, as necessary.	Volume	Low	Yes
	6.2	Lawns and landscaping are not to be watered.	Volume	High	Yes
	6.3	Restaurants must use disposable cups.	Volume	Low	Yes
	6.4	Mandatory Rationing.	Volume	High	Yes

5.3 Operational Changes

MSWD has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4**Error! Reference source not found.**. MSWD may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

MSWD has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in MSWD's Emergency Response Plan (ERP).

MSWD's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available. MSWD's plan outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

Five of the Coachella Valley RUWMP participating agencies collaborate on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because MSWD uses local groundwater to meet urban demands, it could continue to meet short term urban demands with groundwater production. MSWD has installed backup generators at key water production facilities to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA. MSWD staff receives regular Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and drills are conducted routinely. MSWD remotely monitors the status of most key facilities at its headquarters, which enables MSWD to detect areas affected by disasters. Other RUWMP participating agencies also participate in ICS training and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. It could also lead to increased groundwater pumping by non-urban users who normally use other sources. MSWD would implement levels of this WSCP as needed if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires the agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

MSWD is a participant in the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) which was updated in 2025 (Riverside County 2023). The Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies and actions to reduce the impacts of a seismic event. The RUWMP

participating agencies continue to include seismic risk assessment in their planning process for system improvements.

Additionally, MSWD has also prepared and implements its own LHMP which was updated in 2022 (MSWD 2022). The MSWD LHMP is used to identify short- and long-term policies, programs, and other activities to reduce risk of MSWD assets and protect residents following hazard events.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be a normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly. Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assume all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. MSWD will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of MSWD's service area. MSWD will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

At all times	Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update message platform to reflect conditions, District response, and needed actions from public	Update campaign and messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update campaign and messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update campaign and messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce emergency status to key stakeholders and general public (e.g., News release, social media, etc.)
Standard coordination with MWD and regional partners	Include increased conservation messages on website and in standard outreach efforts; provide regular condition updates to stakeholders/media	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to stakeholders/media	Supplement Level 2 outreach with additional tactics as needed; provide regular updates to stakeholders/media on conditions	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to stakeholders/media on conditions
Board reports on public communication and water-use efficiency outreach activities at least annually.	Enhance promotion of ongoing WUE programs/tools; deploy targeted advertising	Conduct issue briefings with elected officials, other key civic and business leaders	Conduct specialized outreach to HOAs and local organizations	Suspend promotion of long-term WUE programs/tools to focus on imminent needs
	Initiate regular Board reports on campaign efforts	Increase promotion of ongoing WUE programs/tools	Promote available water assistance resources for vulnerable populations; specialized outreach to impacted industries	Continue enhanced coordination with neighbor agencies and local/state/federal policy makers as needed (e.g. daily or weekly briefings or email updates, etc.)

7 Compliance and Enforcement

This section describes how MSWD will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area. MSWD will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6.

Table 6. Enforcement Actions

Water Shortage Level	First Violation	Second Violation (within 12 months)	Third Violation (within 12 months)	Subsequent Violations	Additional Information
1-6	Written notice	$100 surcharge	$200.00 surcharge applied to the customer's bill and/or a flow restricting device to be installed in the customer's water service line for continued failure to comply within 30 days after notice and imposition of second violation sanction. The charge to the customer for installing a flow restricting device shall be based upon the size of the meter and the actual cost of installation.	Within 24 calendar months after a first violation: Discontinuance of service Charge for reconnection and restoration of service as provided by the Rules and Regulations of the District $500 fine per day for each day the violation occurs.	Any violation of the District's Water Conservation Stages including waste of water and excessive use is a misdemeanor and upon conviction thereof, the violator shall be punished by imprisonment, fine or by both such fine and imprisonment as allowed by law. In addition to criminal penalties, violators of the mandatory provision of the Ordinance shall be subject to civil action.

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that MSWD relies upon to implement the shortage response actions and the associated enforcement actions.

The WSCP was adopted by Ordinance No. XXX <to be completed after adoption>, repealing and replacing the prior ordinance (No. 2021-01). A copy of the legal authority is included in Attachment A.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, MSWD shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

MSWD shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 7 contains a list of contacts for all cities or counties for which MSWD provides service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to MSWD of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Proclamation of Local Emergency

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions
- Economic impacts associated with water-dependent businesses in the service area Potential mitigation measures include:
- Triggering of drought rate structures or surcharges
- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced water production)

- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge
- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative source of funding, such as state or federal grants or loans
- Other financial management mechanisms

MSWD will monitor financial conditions during a water shortage and take appropriate actions as needed. MSWD maintains financial reserves that can be used to continue operations during a period of reduced water sales. MSWD has the ability to increase water rates or implement surcharges or penalties to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. MSWD may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

10 Monitoring and Reporting

This section describes how MSWD will monitor and report on implementation of the WSCP. MSWD will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving its intended water use reduction purposes. MSWD will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. MSWD will also gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies, as needed.

MSWD will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and water connection point is also metered, and production records will be used to observe trends in water production. Levels in storage reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks. MSWD staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

For each customer, MSWD will aggregate the consumption records by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

MSWD will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If MSWD determines that the shortage response actions are not effective in producing the desired results, MSWD will initiate a process to refine the WSCP. MSWD will consider the addition of new shortage response actions, or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from staff, customers, industry experts, and the general public. The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while most pools and spas (recreational water features) use potable water for health and safety considerations. However, this distinction does not apply to the hot mineral spring pools and spas throughout the Desert Hot Springs area; while they are recreational, they also do not rely on potable water.

13 Plan, Adoption, Submittal, and Availability

This 2025 WSCP was presented for adoption at the MSWD public meeting on June 3, 2026. Notifications were sent to the cities and counties identified in the 2025 RUWMP. To comply with the notice to the public, MSWD published notices in the local newspaper at least two weeks in advance with five days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on June 3, 2026 with adoption of the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at MSWD's office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within MSWD's service area within 30 days of adoption.

Based on DWR's review of the WSCP, MSWD will make any amendments in its adopted WSCP, as required and directed by DWR. If MSWD revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Mission Springs Water District (MSWD). 2022. *Mission Springs Water District Local Hazard Mitigation Plan*. Available: https://www.mswd.org/media/2546. Accessed: March 2026.

Attachment A. Legal Authority

Title 5 - WATER

Chapter 5.01 – GENERAL PROVISIONS

Section 5.01.010 – Authority

Pursuant to Water Code Section 31024, the District has the authority to establish rules and regulations for the sale, distribution, and use of water.

Chapter 5.02 – WATER SERVICE RULES AND REGULATIONS

Section 5.02.010 – General Provisions

A. Short Title – This Ordinance may be cited as the "Mission Springs Water District's Water Regulations and Service Ordinance."

B. Intent – This Ordinance is intended to provide rules and regulations applicable to the administration and operational activities of the District. It may be amended from time to time by action of the Board of Directors of Mission Springs Water District.

C. Enabling Statutes – This Ordinance is adopted pursuant to the applicable provisions of Division 12 of the Water Code and Division 5, Chapter 7, Title 5, Division 2 of the Government Code, and further pursuant to the Constitution of the State of California. The district is further authorized by Water Code Section 31027 to prescribe and define by ordinance those restrictions, prohibitions and exclusions it may determine to be necessary pursuant to the California Constitution Article X, Section 2 and Water Code Sections 31026, 375-277 and 1009 to restrict the use of district water during threatened or existing water shortages. It is also the intent of the Board of Directors to establish by this Ordinance those procedures and policies necessary for the orderly administration of a water conservation program to prohibit waste and to restrict water use during a water shortage emergency.

D. Application – This Ordinance shall apply to all water facilities constructed, maintained, and operated by the District.

E. Enterprise – The District will furnish and/or make available, a system, works, and undertakings used for and useful in, the delivery of water for the District's service area, including all annexations thereto, lands, easements, rights in land, contract rights, and franchises.

F. Separability – If any section, subsection, sentence, clause, phrase, or portion of this Ordinance or the application thereof to any person or circumstances are for any reason held to be unconstitutional or invalid by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the application of such provision to other persons or circumstances. The Board of Directors hereby declares that it would have passed this Ordinance or any section, subsection, sentence, clause or phrase hereof irrespective of the fact that any one or more section, subsection, sentences, clauses or phrases be

declared to be unconstitutional.

G. Words and Phrases – For the purpose of this Ordinance all words using the present tense shall include the future; all words in the plural number shall include the singular number; and all words in the singular number shall include the plural number.

H. Publication – Upon adoption, this Ordinance shall be entered in the minutes of the Board of Directors and published in a newspaper of general circulation in the District's service area within ten (10) days following its adoption.

I. Means of Enforcement – The District hereby declares that the procedures contained herein are established as a means of enforcement of the terms and conditions of their Ordinances, Rules, and Regulations and not as a penalty.

J. Notices – Whenever a notice is required to be given under this Ordinance, unless different provisions are specifically made herein, such notice may be made either by personal delivery thereof to the person to be notified or by deposit in the U.S. Mail in a sealed envelope, postage prepaid, addressed to such person at his last known business or residence address as the name appears on public records or other records pertaining to the matter to which the notice is directed. Service by mail shall be deemed to have been completed at the time of deposit in the post office.

Proof of giving any notice may be made by the certification of any officer or employee of the district or by affidavit of any person over the age of eighteen years, which shows service in conformity with this Ordinance or other provisions of law applicable to the subject matter concerned.

K. Effect of Heading – Title, division, or section headings contained in this Ordinance shall not be deemed to govern, limit, or modify in any manner, the scope, meaning or intent of any section or subsection of this Ordinance.

(Ord. No. 1993-03, § 2, 10-18-1993)

Section 5.02.020 – Definitions

A. Applicant – The person making this application hereunder shall be the owner of the premises involved, or his authorized agents, so authorized in writing to the District, or a licensed plumber or contractor.

B. Board – The Board of Directors of Mission Springs Water District.

C. Board of Directors – The Governing Body of Mission Springs Water District.

D. Connection – The pipeline and appurtenant facilities such as the curb stop, meter and meter box, all used to extend water service from the main to the premises, the laying thereof and the tapping of the main. Where services are divided at the curb or property line to serve several customers, each such branch service shall be deemed a separate service.

E. Contractor – Contractor shall mean an individual, firm, corporation, partnership, or association duly licensed by the State of California to perform the type of work to be done under a permit, contract, or agreement.

F. Controller – Equivalent to Auditor of the District under Water Code Section 30540.

G. Cost – The cost of labor, materials, transportation, supervision, engineering, and all other necessary overhead expenses.

H. County – The County of Riverside, California.

I. Cross-Connection – Any physical or potential connection or structural arrangement between the District's public water system, including a piping system connected to the District's public water system and located on the premises of a water user or available to the water user, and any source or distribution system containing liquid, gas, or other substances not from an approved water supply

J. Customer – Any person supplied or entitled to be supplied with water service by the District.

K. Customer's Service Valve – A valve independent of the District's facilities located in the customer's piping as close to the meter as practical, the operation of which will control the entire water supply from the meter.

L. Developer – Shall mean any person commencing proceedings under applicable city or county ordinances to effect a land development.

M. District – Mission Springs Water District, Riverside County, California

N. District Engineer – Shall mean the Engineer or Engineering Firm appointed by the Board and acting for the District.

O. Equivalent Fixtures Units (EFUs) – The number of Equivalent Fixture Units (EFUs) by the Uniform Plumbing Code or by provisions adopted by the Board.

P. General Manager – The General Manager of the District.

Q. Inspector – The person who shall perform the work of inspecting water facilities under the jurisdiction or control of the District.

R. Main – A water line in a street, highway, alley, or easement used for public and private fire protection and for the general distribution of water.

S. Owner – The person owning in fee title, or in whose name the legal title to the property appears, by deed duly recorded in the County Recorder's office, or the person in possession of the property or buildings under claim of, or exercising acts of ownership over same for himself, or as executor, administrator, guardian or trustee of the owner.

T. Permit – Any written authorization required pursuant to this or any other regulation of the District.

U. Person – Any human being, individual, firm, company, partnership, association and private, public, or municipal corporation, the United States of America, the State of California, a district and any political subdivision, government agency.

V. Premises – A lot or parcel of real property under one ownership, except where there are well-defined boundaries or partitions such as fences, hedges or other restrictions preventing the common use of the property by several tenants, in which case each portion shall be deemed a separate premise. Components of apartment houses and office buildings may be classified as single premises.

W. Private Fire Protection Service – Water service and facilities for building sprinkler systems, hydrants, hose reels, and other facilities installed on private property for fire protection and the water available therefore.

X. Public Fire Protection Service – The service and facilities of the entire water supply, storage and distribution system of the District, including the fire hydrants affixed thereto, and the water available for fire protection, excepting house service connections and appurtenances thereto.

Y. Regular Water Service – Water service and facilities rendered for normal domestic, commercial and industrial purposes on a permanent basis, and the water available therefore.

Z. Residential – Any single-family unit, any duplex or triplex family unit not requiring licensing for occupancy and operation.

AA. Secretary – The Secretary to the Board of Directors.

BB. Service Connection – Shall mean the pipeline extending from the main, whether located in a public thoroughfare or private right-of-way, to the curb line or property line of the water user's premises, together with the valves, meter and fittings and appurtenances necessary to connect to the water user's private pipeline.

CC. Temporary Water Service – Water service and facilities rendered for construction work and other uses of limited duration, and the water available therefore.

DD. Uniform Plumbing Code – Shall be the most recent edition of the Code published by the International Association of Plumbing and Mechanical Officials.

EE. Waste – Shall mean any unreasonable or non-beneficial use of water, or any unreasonable method of use of water, including, but not limited to, the specific uses prohibited and restricted by this Ordinance as hereinafter set forth.

FF. Water – Shall mean the water supplied by Mission Springs Water District.

GG. Water Department – The Board of Directors of the District performing functions related to the District's water service, together with the General Manager, District Engineer, Controller, and any other duly authorized representatives.

HH. Water Supply Shortage – Shall mean any water shortage caused by drought or any other threatened or existing water shortage, earthquake, disaster, or facility failure, loss of electrical power, pipe line breakage, or other condition which results in, or threatens to result in, the District's inability to meet the water demands of its customers. Water shortage shall also be a condition or conditions prompted by declaration of the Governor of California, and/or an authorized legislative body of an agency of the State of California.

II. Water User – Shall mean any person, firm, partnership, association, corporation or political entity using water obtained from the water system of the District.

(Ord. No. 1993-03, § 3, 10-18-1993; Ord. No. 2025-02, 08-18-2025)

Section 5.02.030 – Water Department

A. Creation – A Water Department is hereby created comprised of the Directors, the General Manager, the Controller and such other employees and assistants as may be hired.

B. General Manager – The General Manager, as provided for in Water Code Section 30580, shall have full charge and control of the maintenance, operation and construction of the water works and water distribution system of the District.

C. Violation and Repairs – The Director of Operations shall promptly report any violation or disrepair to the General Manager. If the work required is in the nature of an emergency, he shall take whatever steps are necessary to maintain service to customers pending action by the General Manager.

D. Supervision – The Director of Operations shall supervise all repair or construction work authorized by the General Manager, and perform any other duties prescribed by the General Manager.

E. The Controller – The Controller shall install and maintain a system of auditing and accounting that shall completely and at all times show the financial condition of the District. The Controller shall furthermore, compute, prepare, and mail bills as hereinafter prescribed, make and deposit collections, maintain proper books of account, collect, account for, and refund deposits, and do whatever else is necessary or directed by the General Manager to set up and maintain an efficient and economical bookkeeping system, and perform any other duties now and hereafter prescribed by the General Manager.

(Ord. No. 1993-03, § 4, 10-18-1993)

Section 5.02.040 – General Rules

A. Standards – The Board of Directors may, from time to time, adopt standard requirements for the design, construction, repair and maintenance, or connection to District water system.

B. Violation Unlawful – Following the effective date of this Ordinance, it shall be unlawful for any person to connect to, construct, install, provide, maintain, or use any other means of water facilities from any building in the area serviced with water by said District except by connection to water facilities in the manner as provided for in this Ordinance. Any violation of this Ordinance will be subject to the provisions of this section, at the discretion of the General Manager.

C. Notice of Violation – Wherever or whenever practical under the particular circumstances and pursuant to the discretion of the General Manager, any person found to be violating any provision of this or any other Ordinance, Resolution, Rule, or Regulation of the District shall be served, by the Inspector or other authorized person, with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. Said time limit shall be not less than two, nor more than seven, working days unless otherwise specified. The offender shall, within the period of time stated in such notice, permanently cease all violations. Upon being notified by an authorized representative of the District of any defect arising in any water facility or of any violation of this Ordinance, the person or persons having charge of said work shall immediately correct the same. All persons shall be held strictly responsible for any and all acts of agents or employees done under the provisions of this or any other Ordinance, Resolution, Rule, or Regulation of the District.

D. Protection from Damage – No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is part of the District's water works. Any person violating this provision shall be subject to the penalties provided by law.

E. Investigation Powers – The officers, inspectors, manager and any duly authorized employees of the District shall carry evidence establishing his position as an authorized representative of the District and upon exhibiting the proper credentials and identification shall be permitted to enter in and upon any and all building, industrial

facilities and properties to which the District is furnishing water or has been requested to furnish water for the purpose of inspecting, reinspecting, observing, measuring, sampling, testing, or otherwise performing such duties as may be necessary in the enforcement of the provisions of the Ordinances, Resolutions, Rules, and Regulations of the District pursuant to the authorization contained in the required application for water service.

F. Non-Compliance with Regulations – As an alternative method of enforcing the provisions of this or any other Ordinance, Resolution, Rule, or Regulation of the District, the District shall have the power to disconnect the user or subdivision water service from the water mains of the District. Upon disconnection, an authorized representative of the District shall estimate the cost of disconnection from and reconnection to the system, and such user shall deposit the cost, as estimated, of disconnection and reconnection before such user is reconnected to the system.

G. Liability for Violation – Any person violating any of the provisions of the Ordinances, Rules or Regulations of the District shall become liable to the District for any expense, loss, or damage, occasioned by the District by reason of such violation.

H. Relief on Appeal – When any person, by reason of special circumstances, is of the opinion that any provision of the Ordinances, Rules or Regulations of the District is unjust or inequitable as applied to the person or premises, they may file a written appeal to the Board of Directors stating the special circumstances, citing the provision complained of, and requesting suspension or modification of that provision as applied to a particular premises. If such appeal is approved, the Board of Directors may suspend or modify the provision complained of, as applied to such person or premises, to be effective as of the date of the appeal and continuing during the period of the special circumstances. All decisions of the Board of Directors regarding such appeal are final.

I. Relief on Own Motion – The Board of Directors may, on its own motion, find that by reason of special circumstances, any provisions of its Ordinances, Rules or Regulations should be suspended or modified as applied to a particular person or premises and may order such suspension or modification for such premises during the period of such special circumstances or any part thereof. All decisions of the Board of Directors regarding such relief are final.

J. Maintenance of Water Pressure and Pressure Conditions – The District shall not accept any responsibility for the maintenance of pressure. The District also reserves the right to discontinue service while making emergency repairs, or other work required on the water system as determined by the General Manager. Customers dependent upon a continuous supply should provide emergency storage. All applicants for service connections or water service shall be required to accept such conditions of pressure and service as are provided by the distribution system at the location of the proposed service connection, and to hold the district harmless for any damages arising out of low pressure or high pressure conditions or interruptions of service.

K. Water Pressure Conditions – Due to topography and other causes, the pressure is not uniform over the territory the system serves. The District reserves the right to change to different pressure in various areas served. However, it shall be the aim and attempted function of the District to maintain adequate pressure at all existing services. Water users dependent upon a continuous water supply should provide adequate storage for emergencies; however, the District assumes no obligation to serve water to elevations higher than its existing facilities serve.

Water users having water heaters, boilers, or other devices requiring a continuous water supply, should take all necessary action to prevent damage or injury to such devices as a result of the shutting off of the water supply.

L. Tampering with District Property – Except as otherwise specifically authorized by the General Manager, no one, except an employee or representative of the District, shall at any time in any manner operate the curb stops

or valves, main stops, gate valves of the District's system; or interfere with meters or their connections, street mains or other parts of the water system.

M. Charge for Violation – Failure of a customer to comply with all or any parts of this ordinance, or any other ordinance, resolution or order fixing rates and charges of this district's water service, shall result in said service being discontinued and water shall not be supplied such customer until the customer is in full compliance with the rules and regulations, rates or charges which have been violated.

N. Water System – The District will furnish a system, works and undertakings used for and useful in obtaining, conserving, and dispensing of water for public and private uses, including all parts of the District, all appurtenances to it, all lands, easements, rights in land, water rights, contract rights, franchises, and other water supply, storage and distribution facilities and equipment.

O. Number Services per Premise – The applicant may apply for as many services as may be reasonably required for his premises provided that the pipe line system for each service be independent of the others and that they not be interconnected.

P. Waste of Water – No customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, the District may discontinue the service if such conditions are not corrected after giving notice of violation as provided in Section 5.02.040(C) herein.

Q. Responsibility for Equipment on Customer's Premises – The District's responsibility ends at the beginning of the water user's side of the meter, or in the case of an unmetered or other special installation, at the point where the District's facilities end. All services, valves, and water meters installed by the District shall at all times remain the property of the District and shall be maintained, repaired, and removed by the District whenever rendered unserviceable through normal wear and tear. Where replacements, repairs or adjustments of any meter are rendered necessary by the act, negligence, or carelessness of the water user or any member of his family or person in his employ, the District shall be reimbursed by the customer for any such damage promptly on presentation of a bill.

R. Damage to Water System Facilities – The customer shall be liable for any damage to the service facilities when such damage is from causes originating on the premises by an act of the customer or his tenants, agents, employees, contractors, licensees, or permittees, including the breaking or destruction of locks by the customer or others on or near a meter, and any damage to a meter that may result from hot water or steam from a boiler or heater on the customer's premises. The District shall be reimbursed by the customer for any such damage promptly on presentation of a bill.

S. Ground-Wire Attachments – All individuals or business organizations are forbidden to attach any ground wire or wires to any plumbing which is or may be connected to a service connection or main belonging to the District. The District will hold the owner liable for any damage to its property occasioned by such ground wire attachments.

T. Control Valve on the Customer's Property – The customer shall provide a valve on his side of the service installation, as close to the meter location as practical, to control the flow of water to the piping on his/her premises. The customer shall not use the service curb stop to turn water on and off for his/her convenience.

U. Unsafe Apparatus – Water service may be refused or discontinued to any premises where apparatus or appliances are in use which might endanger or disturb the service to other customers.

V. Cross-Connections – Water service may be refused or discontinued to any premises where there exists a cross-connection as defined in Section 5.02.080 of this Ordinance.

W. Fraud or Abuse – Subject to Section 5.02.090(I) and 5.02.110(A), if necessary, service may be discontinued to protect the District against fraud or abuse.

X. Interruptions in Service – The District shall not be liable for damage which may result from an interruption in service from a cause beyond the control of the District.

Y. Ingress and Egress – District representatives shall have the right of ingress and egress to the customer's premises at reasonable hours for any purpose reasonably connected with the furnishing of water service.

Z. Installation of Services – Only duly authorized employees or agents of the District shall be authorized to install service connections. All service connections shall comply with the specifications of the District, including automatic meter reading devices. Meters will be installed in easements and right of ways, and shall be owned by the District. No rent or other charge will be paid by the District for a meter or other facilities, including connections. All meters will be sealed by the District at the time of installation, and no seal shall be altered or broken except by one of its authorized employees or agents.

AA. Change in Location of Meters – Meters moved for the convenience of the customer will be relocated at the customer's expense. Meters moved for the convenience of the District will be moved at the District's expense.

BB. Service Size and Location – Where practical, the District will install the service connection at a location selected by the applicant. However, the District reserves the right to determine the size of the service connection and its location in relation to boundaries of the premises to be served. Customarily, a service connection will terminate at a point behind and adjacent to the curb in streets or adjacent to the property line in alleys or other utility right-of-way.

In locations where the applicant's premises do not directly abut a public thoroughfare, the District, at its option, may provide a service connection of conventional length terminating at some practical location on public property, and applicant shall be responsible for providing a connection thereto. The applicant's pipe to connect to the District's service connection shall not be laid until the service connection is installed.

In the event the applicant's pipe is laid prior to the time the service connection is installed, and this location does not correspond with that of the service connection, then applicant shall bear the additional cost of connecting the service connection pipe with the applicant's pipe.

CC. Curb Stop – Each service connection installed by the District shall be equipped with a curb stop or gate valve on the inlet side of the meter. Such valve or curb stop is intended for the exclusive use of the District in controlling the water supply through the service connection pipe. If the curb stop or gate valve is damaged by the customer's use, the replacement shall be at the customer's expense.

DD. Access to Meters – The District reserves the right to enter upon the applicant's premises for the purpose of reading, repairing or replacing the water service meter. The applicant shall be solely responsible for the control of all animals which may pose a potential threat to District employees and shall be liable for any injury to District employee resulting from unrestrained animals. Should an applicant for new service fail to properly restrain animals present on his property, the District may, upon written notice, refuse to install or turn on service until such time as the District determines that a threat to its employees no longer exists. In the case of existing customers, where District employees may encounter some personal risk in attempting to read a meter (due to the presence of unrestrained animals, or otherwise), the employee is not required to read the meter, and the

customer's bill will be estimated based upon the last year's consumption plus the average increase in consumption in the District. The meter will be read quarterly in the presence of the customer or someone of his choosing, so that over estimates and under estimates of use may be rectified on the bill.

(Ord. No. 1993-03, § 5, 10-18-1993)

Section 5.02.050 – Application for Water Service

A. Application for Water Service – The property owner or his agent designated in writing, shall make application for regular water service by personally signing an "Application For Water Service" form provided by the District and paying the necessary fee for connection to District facilities, as prescribed in the latest Resolution on fees adopted by the Board of Directors.

B. Water Service to Customers other than Property Owners – Service to other than property owners shall be made in accordance with this Section. Service may be initiated in the name of a tenant of the owner provided a copy of the lease agreement is provided to the District and provided that both the tenant and the owner shall execute the Application for Water Service and be responsible for the water charges as provided below.

1. Owner’s Responsibility – Whether or not a property owner has signed the District's application for service form, the property owner is not relieved of his or her responsibility for unpaid water charges for the subject property as provided in this Ordinance and pursuant to California Water Code Section 31701 et. seq.

C. Security Deposits

1. Security Deposit Residential

   A security deposit for a single-family residential unit shall not be required except upon the determination by the District that the person requesting service is not creditworthy. The determination of creditworthiness shall be upon criteria determined by the Controller, and may be appealed as provided in Section 5.02.050.

2. Security Deposit Commercial – A security deposit for each commercial unit, retail unit, or multi-unit complex shall be deposited at the time application is made.

D. Security Deposit Refund – The District shall refund each security deposit to the residential customer when funds have been on deposit for one year in a customer's account and there has been no more than one delinquent payment on that account during the year; within thirty (30) days after the date of termination of the account provided the applicant gives the District written notice to terminate water services; or when a new property owner makes a deposit for the same property. The District shall refund the security deposit for commercial, retail, or industrial connections within thirty (30) days after the date of termination of the account provided the customer gives the District written notice to terminate water service; or when a new property owner makes a deposit for the same property.

E. Change in Customer’s Equipment – Customers who make any material change in the size, character, or extent of the equipment or operations utilizing water service, or whose change in operations results in a significant

increase in the use of water shall immediately give the District written notice of the nature of the change and, if necessary, amend their application. The District at its discretion may change the size of the service and charge the customer according to current fee resolution.

F. Domestic, Commercial, and Industrial Service Connections – It shall be unlawful to maintain a connection except in conformity with the following:

1. Multiple Units – Multiple units shall include separate houses, buildings, condominiums, living or business quarters on the same premises or on adjoining premises under single control or management. The District may determine the size of the service connections and their locations in relation to boundaries of the premises to be served and the point of connection to the water user's facilities. The District may limit the number of houses, units, buildings or area of land under one ownership to be supplied by one service connection.

2. Single Connection – Not more than one service connection for domestic or commercial supply shall be installed for a building, except under special conditions as provided in Section 5.02.070 (Fire Protection).

3. Service Connection – A service connection shall not be used to supply any adjoining property, or property across a street, alley, or easement.

4. Divided Property – When property provided with a service connection is divided, the service connection shall be considered as belonging to the lot or parcel of land which it directly enters.

G. Service Connection Maintenance – The service connection extending from the water main to the meter, meter box, and curb stop shall be maintained by the District. All pipes and fixtures extending or lying beyond the meter box shall be installed and maintained by the owner of the property, with the exception of the backflow prevention devices, if required. Installation and maintenance of such devices shall be in accordance with Section 5.02.080.

H. Damages Through Leaking Pipes and Fixtures – When turning on the water supply as requested to a vacant house or property, the District will make a reasonable attempt to determine if water is running inside of the building. If such is found to be the case, the water will be left shut off at the curb stop or the private shutoff. The District's jurisdiction and responsibility ends at the property line and the District will in no case be liable for damages occasioned by water running from open or faulty fixtures, or from broken or damaged pipes inside the property line.

I. Damage to Meters – The District reserves the right to set and maintain a meter on any service connection. The water customer shall be held liable for any damage to the meter due to his negligence or carelessness.

J. Main Extension Required – The District will provide for all main extensions upon application for service and payment of required charges.

1. Application – Any owner of one or more lots, parcels, or subdivider of a tract of land desiring the extension of one or more water mains to serve such property, shall make written application to the

District. Said application shall contain the legal description of the property to be served, tract number, and any additional information which may be required by the District, and may be accompanied by a map showing the location of the proposed connections.

2. Investigation – Upon receipt of the application, the District shall make an investigation and survey of the proposed extension and estimate the cost thereof.

3. Dead-End Lines – No dead-end lines shall be permitted, except at the discretion of the General Manager. In cases where circulation lines are necessary they shall be designed and installed by the District as a part of the main extension.

4. Specifications and Construction – The size, type, and quality of materials and location of the lines shall be specified by the District. Actual construction will be performed by the District or a contractor acceptable to the District.

5. Property of District – Upon completion of such installation, the facilities shall be dedicated to and become property of the District.

6. Connections – The applicant shall, at his cost, provide all connections to buildings and private water systems, as herein provided.

7. Reimbursement Agreement – Upon request of an applicant who has paid the cost of constructing a main line extension which contains capacity sufficient to benefit other properties when and if they should request connection for service therefrom, the District shall enter into a Reimbursement Agreement to reimburse the applicant the proportionate amount of cost advanced which represents the value of the additional capacity in the line. Reimbursement shall be collected by the District in the form of front footage charges imposed on future connections to the main line.

   The terms of the Reimbursement Agreement shall be conditioned upon actual receipt by the District of the main line extension front footage fees over period of ten (10) years from the date of the Reimbursement Agreement for private property owners, and for a period not to exceed fifteen (15) years for public agency applicants.

(Ord. No. 1993-03, § 6, 10-18-1993; Ord. No. 1997-01, §§ 1-3, 4-21-1997)

Section 5.02.060 – Temporary Service

A. General Provisions – Upon application to the District, water may be procured from fire hydrants if in the opinion of the General Manager or his authorized representative such excess water is available. The applicant must complete and sign an appropriate permit and deposit with the District an amount established pursuant to the current fee resolution.

Temporary services, whether from a fire hydrant or otherwise, are installed for the convenience and use of persons doing construction work. Temporary services are not limited to construction purposes but may be

installed for any use. Any temporary service may be discontinued during any emergency for the duration of the emergency. Temporary services are not transferable except to the successors in interest of the applicants by operation of law.

B. Duration of Service – Temporary service connections shall be disconnected and terminated within four (4) months after installation unless an extension of time is granted in writing by the General Manager.

C. Security Deposit – The applicant shall deposit, in advance, the estimated cost of the temporary service. Upon discontinuance of service, the actual cost shall be determined and an adjustment made as an additional charge, refund or credit.

D. Installation and Operation – All facilities for temporary service to the customer shall be installed and operated in accordance with District instructions.

E. Responsibility for Meters and Installations – The customer shall use all possible care to prevent damage to the meter or to any other loaned facilities of the District which are involved in furnishing the temporary service from the time they are installed until they are removed. If the meter or other facilities are damaged, the cost of making repairs shall be paid by the customer. The customer shall give notice to the district in writing at least forty-eight (48) hours prior to the time the customer or other person is finished with the meter or meters and the installation.

F. Unauthorized Use of Hydrants – Tampering with any fire hydrant for the unauthorized use of water therefrom, or for any other purpose, is subject to a penalty charge for each occurrence as may be set by the Board.

G. Meter Availability – The applicant shall make the hydrant meter available as prescribed by the District for reading on a monthly or bimonthly basis.

H. Pools and Tanks – When an abnormally large quantity of water is desired for filling a swimming pool or for other purposes, arrangements must be made with the District prior to taking such water. Permission to take water in unusual quantities will be given only if it can be safely delivered through the District's facilities and if other customers are not inconvenienced thereby.

I. Responsibility for Equipment – The customer shall, at his own risk and expense, furnish, install, and keep in good and safe condition all equipment that may be required for receiving, controlling, applying, and utilizing water. The District shall not be responsible for any loss or damage caused by the improper installation of such equipment, or the negligence or wrongful act of the customer or any of his tenants, agents, employees, contractors, licensees or permittees in installing, maintaining, operating or interfering with such equipment. The District shall not be responsible for damage to property caused by faucets, valves and other equipment, which are open when water is turned on at the meter, either originally or when turned on after a temporary shutdown.

(Ord. No. 1993-03, § 7, 10-18-1993)

Section 5.02.070 – Fire Protection

A. Public Fire Protection – The following pertains to the use of District facilities for public fire protection:

1. Use of Fire Hydrants – Fire hydrants are for use by the District or by organized fire protection agencies pursuant to contract with the District. Other parties desiring to use fire hydrants for any purpose must first

obtain written permission from the District prior to use and shall operate the hydrant in accordance with instructions issued by the Water Department. Unauthorized use of hydrants will be prosecuted according to law.

2. Moving of Fire Hydrants – When a fire hydrant has been installed in a location specified by the proper authority, the District has fulfilled its obligation. If a property owner or other party desire a change in the size, type, or location of the hydrant, they shall bear all costs of such charges, without refund. Any change in a location of fire hydrant must be approved by the proper authority.

B. Private Fire Protection Service – The following pertains to the use of District facilities for private fire protection systems with the exception of single-family residences:

1. Payment of Cost – The applicant for private fire protection service shall pay the total actual cost of installation of the service from the distribution main to the service location including the cost of a detector check meter or other suitable and equivalent device, valve, and meter box, said installation to become the property of the District.

2. No Connection to Other System – There shall be no connection between this fire protection system and any other water distribution system on the premises.

3. Use – There shall be no water used through the fire protection service except to extinguish fires and for testing the fire-fighting equipment.

4. Charges for Water Used – Any consumption recorded on the meter will be charged as provided in District Resolution except that no charge will be made for water used to extinguish fires where such fires have been reported to the fire department.

5. Monthly Rates – The monthly rates for private fire protection shall be established from time to time by Resolution of the Board of Directors.

6. Water for Fire Storage Tanks – Occasionally water may be obtained from a private fire service for filling a tank connected with the fire service, but only if written permission is secured from the District in advance and an approved means of measurement is available.

7. Violation of Agreement – If water is used from a private fire service in violation of the agreement or this Ordinance, the District may, at its option, discontinue and remove the service.

8. Valve – When a fire service connection is installed, the valve governing same will be closed and sealed and remain so until a written order is received from the owner of the premises to have the water turned on.

9. Meter – If the District does not require a meter, and if water is used through a fire service connection for any other purpose than extinguishing of fires, the District shall have the right to place a meter on the fire service connection at the owner's expense, or shut off the entire water supply from such premises.

10. Additional Service – The District shall have the right to take a domestic, commercial or industrial meter service connection from the fire service connection at the curb to supply the same premises as those to which the fire service connection belongs. The District shall also have the right to determine the proportion of the installation costs properly chargeable to each service connection, if such segregation of costs shall become necessary.

11. Backflow Protection Check Valve – The District reserves the right to require all fire service connections and fire protection systems to be protected by, at a minimum, a Double Check Detector Assembly (DCDA). Fire protection systems classified as high hazard, such as those that incorporate chemical additives (e.g., wetting agents, foam, antifreeze, corrosion inhibitors) or utilize an auxiliary water supply must be protected by, at a minimum, a Reduced Pressure Detector Assembly (RPDA).

    All backflow prevention assemblies must be of a type approved by the latest edition of the Manual of Cross-Connection Control published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California. Each assembly shall also be equipped with a bypass meter, to be installed at the property owner’s expense.

(Ord. No. 1993-03, § 8, 10-18-1993; Ord. No. 2025-02, 08-18-2025)

Section 5.02.080 – Cross-Connection Control

A. Cross-Connections – The purpose of this Section is to protect the public potable water supply system of Mission Springs Water District by establishing a Cross-Connection Control Program to effect the control of cross-connections, actual or potential, thereby isolating within the customer's private water system or internal piping, contaminants or pollutants which could backflow or back siphon into the District's water supply system.

The Regulations relating to cross-connections as established Cross-Connection Control Policy Handbook (CCCPH) adopted by the State Water Resources Control Board Division of Drinking Water (DDW), as amended from time to time and the most recent edition of the Manual of Cross-Connection Control published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, insofar as these regulations are applicable to the protection of water supply of this District are hereby adopted, incorporated herein by reference and made a part hereof.

B. Determination of Cross-Connection – Upon the determination by the District that a backflow prevention assembly is required in the customer's private piping system for the safety of the public water supply system, the District shall immediately install such an assembly in the manner and location prescribed in Section 5.02.080(F)(3). All costs for such installation will be paid by the customer.

C. Discontinuance of Service – Failure to install said assembly as prescribed shall constitute grounds for discontinuance of water service to the premise. No water service shall be installed or maintained by the District to any premises on which there exists or there is suspected to exist cross-connection between the public water supply and other piping, fixtures, appliances, equipment, drains, or any system which might cause contamination

or pollution through backflow or back siphonage, unless such service is protected by the installation of a backflow prevention assembly.

D. Degree of Hazard – The type or kind of assembly installed shall depend on the degree of hazard involved. The degree of hazard shall be determined by the most recent edition of the Manual of Cross-Connection Control published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California.

E. Approved Backflow Assemblies – The District shall maintain and make available a list of approved backflow prevention assemblies which may be installed for the protection of the public water supply system.

F. Inspection, Testing, and Maintenance – All backflow prevention assemblies shall be inspected and tested at least annually for proper operation. Inspection and testing shall be performed by the District's certified inspector or a District approved private inspector. The results of each test, including repairs, shall be recorded on a form maintained by the District.

1. Repair of Defective Backflow Prevention Assemblies – In the event a backflow protection assembly is found to be defective, the customer shall be responsible for making all necessary repairs and/or replacements at their own expense. All annual inspections, testing, and acceptance tests following installation, repair and/or replacement shall be performed at the owner’s expense.

2. No Service Unless Property Protected – A water service connection to any premise shall not be installed or maintained unless the public water supply system is protected in accordance with the laws of the State of California and this Ordinance. If a backflow prevention assembly has not been installed, tested and maintained in accordance with the provisions of this Ordinance, or if a backflow prevention assembly has been removed or bypassed, or if an unprotected cross-connection exists on the premise, water service shall be discontinued immediately and not restored until such condition or defect have been corrected.

3. Installation Required – Upon the determination by the District that a backflow prevention assembly is required on a customer's water service line, it shall be installed immediately behind the meter and before the first branch line leading off the service line.

G. Cross-Connection Control Criteria – Criteria examined to determine whether a backflow prevention assembly is required shall include, but not be limited to, the following:

1. Auxiliary Water Supply – A premise being or to be served with water by the District having an auxiliary water supply of a quality which is not acceptable to the District as an additional source.

2. Industrial Hazards – A premise on which industrial fluids or other objectionable substances are being handled in a manner as to create an actual or potential hazard to the public water supply.

3. Inspection Not Possible – A premise whose internal piping system has cross-connections that cannot be corrected or controlled, or the system is not accessible for inspection to make a determination of the

existence of a cross-connection.

H. Enforcement – Service of water to any premise shall be discontinued by the District if a backflow prevention assembly required by the Rules and Regulations of the District is not installed, tested and maintained or if defects are found in the installed backflow prevention assembly or if it is found that a backflow prevention assembly has been removed or bypassed or if unprotected cross-connections exist on the premises. Service will not be restored until such conditions or defects are corrected. The District representative assigned to inspect premises relative to possible cross-connection hazards, shall carry proper credential of his office, upon exhibition of which, he shall have the right of entry during usual business hours to inspect any and all buildings and premises in the performance of his duty. This right of entry shall be a condition of water service in order to provide assurance that the continuation of service to the premises will not constitute a menace to health, safety and welfare to the people throughout the District's water system.

(Ord. No. 1993-03, § 9, 10-18-1993; Ord. No. 2025-02, 08-18-2025)

Section 5.02.090 – Customer Billing Procedures

A. Establishment of Rates and Charges – The Board of Directors shall from time to time by Resolution, establish rates and charges for water and other service provided by the Mission Springs Water District.

B. Charges – Water charges shall begin when a water service connection is installed and the meter is set or an existing service is requested to be turned on, unless the water is ordered to be left shut off when the service connection is ordered or installed.

C. Liability for Water Used – The property owner shall be held liable for water used until the District is notified in writing to discontinue service or to transfer the account to another property owner.

D. Liens for Unpaid Bills – All unpaid bills will be made a lien against the property pursuant to California Water Code Section 31701 et. seq. and to these Rules and Regulations.

E. Owner Liability – The property owner remains responsible for all charges owed to the District whether or not the property owner actually lives on the premises, or signs the application for water service form.

F. Billing Period – The regular billing period will be monthly or bimonthly at the option of the District.

G. Opening and Closing Bills – Opening and closing bills for less than the normal billing period shall not be pro-rated. Closing bills may be estimated by the District for the final period as an expediency to permit the customer to pay the closing bill at the time service is discontinued.

H. Payment of Bills – Bills for metered water service shall be rendered at the end of each billing period and are due and payable upon presentation. If full payment is not received at the business office of the District on or before the final payment date, the bill shall become past due and delinquent.

I. Delinquency Notice – A delinquency notice shall be mailed to customers whose accounts are delinquent, warning that service will be disconnected unless payment is made within sixty (60) calendar days from the date of delinquency. The delinquency notice shall be provided to the customer no less than seven (7) business days before discontinuance of residential service. For purposes of this Section the delinquency shall be deemed to occur as provided in Section 5.02.090(H). If the customer’s address is not the address of the property to which residential service is provided, the notice shall also be sent to the address of the property to which the residential

service is provided addressed “occupant”.

1. Contents of the Delinquency Notice – The delinquency notice shall include customer’s name and address; amount of the delinquency; date by which payment or arrangement for payment is required in order to avoid discontinuation of residential service; description of the procedure to petition for bill review and appeal; and description of the procedure by which the customer may request a deferred, reduced, or alternative payment schedule, including an amortization of the delinquent residential service charges. The foregoing policies and procedures shall be prepared by and may be amended from time to time by the General Manager or his or her designee. Notice of any delinquency in a tenant’s account shall also be sent to the owner of the property with indication of the owner’s liability. The delinquency notice may be combined with the regular monthly bill.

J. Suit – All unpaid rates, charges and penalties herein provided may be collected by suit.

K. Costs – Defendant shall pay all costs of suit in any judgment rendered in favor of District, including reasonable attorney's fees.

L. Upon Vacating Premises – Customers desiring to discontinue service should so notify the District in writing at least two (2) days prior to vacating the premises. Unless discontinuance of service is ordered in this manner, the customer shall be liable for ongoing charges whether or not any water is used, up until time of requested discontinuance of service.

(Ord. No. 1993-03, § 10, 10-18-1993; Ord. No. 2020-01, 1-21-2020)

Section 5.02.100 – Complaints and Disputed Bills

A. Right to Meet – Should a customer have a complaint with regard to water service, the District Rules, Regulations, Resolutions, Ordinances, or dispute the accuracy of a bill for water service or other charges, for any reason whatsoever, the customer has the right to meet first with the Controller and then the General Manager to discuss the dispute and present any evidence the customer has to support their position.

B. Arrangement of Meeting – To arrange such a meeting the customer shall contact the District office, either in writing or by telephone, during normal business hours as may be set by the Board.

C. Presentation of Evidence – The customer may be accompanied by a friend, attorney, or other representative to meet with the Controller or General Manager and may present any evidence they may have to support their position.

D. Unresolved Disputes – If the customer is unable to resolve his dispute with the Controller or General Manager he may submit the complaint in writing, along with a full and detailed explanation to the Public Affairs Committee of the Board of Directors for resolution or referral to the Board of Directors pursuant to Section 5.02.040(H) (Relief on Appeal).

E. Discontinuance of Service – No water or other service shall be discontinued pending the final resolution of a dispute.

F. Meter Test Deposit – Should a customer desire to have the water meter service serving their premises tested, he shall first deposit an amount as specified in District Resolutions, for testing of meters up to one-inch (1") in

size, and shall be present when the meter is tested in the meter shop of the Water Department. Should the meter register more than two percent (2%) fast, the deposit will be refunded, but should the meter register less than two (2%) fast, the deposit will be retained by the District.

G. Adjustment for Fast Meter Errors – If a meter tested at the request of a customer is found to be more than two percent (2%) fast, the excess charges for the time service was rendered the customer requesting the test, or for a period of six months, whichever shall be the lesser, shall be refunded to the customer.

H. Adjustment for Slow Meter Errors – If a meter tested at the request of a customer is found to be more than ten percent (10%) slow, the District may bill the customer for the amount of the undercharge based upon corrected meter readings for the period, not exceeding six months, that the meter was in use.

I. Non-Registering Meters – If a meter is found to be not registering, the charges for service shall be based on estimated consumption using previous consumption for a comparable period or by such other method as is determined appropriate. Such estimates shall be made by the General Manager, subject to the right of appeal under Section 5.02.040(H).

(Ord. No. 1993-03, § 11, 10-18-1993)

Section 5.02.110 – Disconnection for Non-Payment

A. Notice of Disconnection for Non-Payment – Water service shall be discontinued if payment for water service is not made within sixty (60) calendar days of the date the applicable bill becomes delinquent as provided in Section 5.02.090(I) and provided further that no less than seven (7) business days before discontinuation of residential service for nonpayment either telephonic notice or, a written notice of discontinuation shall be provided to the customer named on the account and the disconnection policies referred to in Section 5.02.090(I) shall be mailed to the residence where the service is provided at the same time. In addition to the forgoing seven day notice, at least forty-eight (48) hours prior to termination, the District will make a reasonable attempt to notify the resident of the affected property by telephone, personal contact, and/or door hanger.

1. Contact with Customer – If the District is unable to make contact with the customer or an adult occupying the residence by telephone, and the written delinquency notice required by Section 5.02.110(A) is returned through the mail as undeliverable, the District shall make a good faith effort to visit the residence and leave, or make other arrangements for placement in a conspicuous place of, a notice of imminent discontinuation of residential service for non-payment referred to in Section 5.02.090(I).

B. Complaint Procedures for Disconnection – Service disconnection for non-payment of bills or violation of any of the District's Rules, Regulations, Ordinances or Resolutions is subject to the complaint procedures specified in Section 6.02.100 herein.

C. Refusal or Neglect to Pay Debt – Any amount due is a debt to the District and any person, firm or corporation failing, neglecting, or refusing to pay this debt may be subject to a civil action for the amount due in a court of competent jurisdiction.

D. Lien Against Property for Non-Payment – Any unpaid debt will be deemed a lien against the real property to which service is rendered as specified herein and California Water Code Section 31701 et seq.

E. Service Charges for Violations – If water service is disconnected for violation of any of the District's Rules, Regulations, Resolutions or Ordinances, service shall not be reinstated until the violations have been corrected and all applicable service charges and fees as provided for herein are paid.

F. Partial Payments – A partial payment of a delinquent account may be accepted and credited to a customer's account, but such partial payment shall not be cause for removing the account from a delinquent status and shall not preclude the meter from being turned off for delinquency, except as otherwise stated in Section 5.02.110(F)(1).

1. Partial Payment Options – Options for partial payments as developed by the District General Manager or his or her designee shall include the following: amortization of the unpaid balance, participation in an alternative payment schedule, a partial or full reduction of the unpaid balance financed without additional charges to other ratepayers, and temporary deferral of payment. The repayment option offered should result in repayment of any remaining outstanding balance within 12 months. A longer repayment period may be granted at the discretion of the General Manager, if it is determined that a longer period is necessary to avoid undue hardship to the customer based on the circumstances of the individual case.

G. Authorization for Continuance of Service for Delinquent Accounts – The General Manager, or his designee, may authorize continuation of service to a delinquent account if financial arrangements satisfactory to the district are established and the General Manager shall authorize continuance of services if the following conditions are met:

1. Customer submits certification of a primary care provider that discontinuation of residential service will be life threatening to, or pose a serious threat to the health and safety of, a resident of the premises where service is provided; and.

2. Customer is willing to enter into an amortization agreement, alternative payment schedule, or a plan for a deferred or reduced payment with respect to all delinquent charges consistent with these Rules and Regulations. The repayment option provided should result in repayment of any remaining outstanding balance within twelve (12) months.

H. Discontinuance under Section 5.02.110(G) – Residential service may be discontinued with respect to a customer having executed an amortized agreement, alternative payment schedule, or plan for deferred or reduced payment under Section 5.02.110(G)(2) if:

1. Final notice of intent to disconnect service is prominently displayed and conspicuously posted at the property at least five (5) business days prior to the termination date; and.

2. Customer fails to comply and is at least sixty (60) days delinquent on the amortization agreement, alternative payment schedule or deferred or reduced payment plan as provided in Section 5.02.110(G); or.

3. Customer fails to pay current residential service charges for sixty (60) days or more while participating in an amortization agreement, alternative payment schedule, or a deferral or a reduction in payment plan for delinquent charges under Section 5.02.110(G).

I. Report of Discontinuance – The District shall report the number of annual discontinuations of residential service for inability to pay on the District's Internet Website, and to the Regional Water Quality Control Board.

(Ord. No. 1993-03, § 12, 10-18-1993; Ord. No. 2020-01, 1-21-2020)

Section 5.02.120 – Adding Delinquent Charges to Tax Roll

A. Report of Delinquent and Unpaid Charges – A report of delinquent and unpaid charges for water and other services which remain unpaid and delinquent for ninety (90) days or more on July 1 of each year shall be prepared and submitted to the Board for consideration as tax liens. The unpaid and delinquent charges listed in said report for each parcel of property shall be fixed at the amount listed in said report.

B. Adoption and Filing of Report – The secretary shall file with the Riverside County Assessor and Board of Supervisors, in the time and manner specified by the County Assessor and Board of Supervisors, a copy of such written report with a statement endorsed thereon over the signature of the secretary, that such a report has been adopted and approved by the Board of Directors and that the County Assessor shall enter the amount of such charges against the respective lots or parcels of land as they appear on the current assessment roll.

C. Collection of Delinquent and Unpaid Charges – The County Assessor shall include the amount of charges on bills for taxes levied against their respective lots and parcels of land and thereafter, the amount of such unpaid and delinquent charges shall be collected at the same time and in the same manner by the same person as, together with and not separately from, the general taxes, if any, for the district or the County and shall be delinquent at the same time and thereafter be subject to the same delinquency penalties.

(Ord. No. 1993-03, § 13, 10-18-1993; Ord. No. 2020-01, 1-21-2020)

Section 5.02.130 – Charges

A. Charges – All charges described herein shall be adopted by Board Resolution.

B. Adjustment of Connection Charges – To reflect the changing cost of construction, the charges contained herein may be adjusted annually by the District in accordance with its actual costs for connections from the previous year.

C. Consumption Charge – The charge per hundred cubic feet for all water registered by the customer's water service meter.

D. Delinquency Charge – A charge added to each delinquent account at the time any amount becomes delinquent with the exception of an account that has had no delinquencies in the prior 12-month period. When a delinquency charge is made, such charge shall be added to the delinquent account as of the date the account becomes delinquent. This charge shall become an inseparable part of the amount due as of that time.

E. Disconnect/Reconnect Charge – The charge which covers reasonable District costs for disconnection and reconnection of service connections which are in violation of the provisions contained herein.

1. Reconnect Charge – The charge which covers a reconnection of service fee for reconnection during normal operating hours shall be fifty dollars ($50), but not to exceed the actual cost of reconnection if it is less. Reconnection fees shall be subject to an annual adjustment for changes in the Consumer Price Index beginning January 1, 2021. For the reconnection of residential service during non-operational hours, the charge which covers a reconnection of service fee shall be one hundred fifty dollars ($150), but not to exceed the actual costs of reconnection if it is less. Reconnection fees shall be subject to an annual adjustment for changes in the Consumer Price Index beginning January 1, 2021.

F. Fire Hydrant Installation Charge – The charge for installation of fire hydrants as may be required.

G. Fire Service Standby Charge – The standby charge per diameter inch of the District fire service meter. Water use through this service is limited to emergency fire requirements only.

H. Inspection Charge – The charge to a customer when a service connection or facility requires inspection by District personnel.

I. Meter Test Charge – The charge which covers District costs for pulling, testing, and reinstalling the water meter to be tested.

J. Security Deposit Charge – The charge which insures payment of minimum District charges. Upon discontinuance of service, the Security Deposit shall be applied to reduce any unpaid charges outstanding on the customer's account. The amount of deposit required shall be established by the Board of Directors in the Resolution on Fees. The Security Deposit shall be refunded to the customer as provided in Section 5.02.050(D) herein.

K. Special Facilities Charge – A charge required for development of limited-service areas whenever special facilities, including, but not limited to, booster stations, hydro-pneumatic stations, and pressure regulators, are required. The charge to be made to a developer or owner of land that is considered by the District to be within a limited-service area shall be based upon the developer's or landowner's proportionate share of the cost for the installation of such special facility. Such proportionate share to be borne by the developer or landowner shall be based on the percentage of such development to the entire limited service area to be served by the special facilities; and the difference between the cost of facilities to serve the same number of acres or area under normal conditions and the cost of facilities to serve the acreage or area under special conditions at a higher cost.

L. Service Charge – The monthly service charge applicable to all metered services.

M. Unauthorized Use of Water Charge – The charge to any person, organization or agency for each unauthorized use of District water, or for tampering in any manner with any meter belonging to the District, in which tampering shall affect the accuracy of such meter.

N. Water Main Extension Charge – The charge for the replacement or construction of the water main fronting on the property to be served.

O. Water Service Connection Charge – The charge for the type and size of water service connection desired. Such regular charge shall be paid in advance by the applicant. Where there is no regular charge, the District reserves the right to require the applicant to deposit an amount equal to the estimated cost of such service connection.

P. Water System Design Charge – A non-refundable charge which shall be required for all main extensions, service connections and/or special facilities requiring the preparation of engineering plans and drawings.

Q. Construction Water Charge – A charge for temporary water service. It is a monthly billing and includes a service charge and a consumption charge billed at the highest rate for consumption.

R. Lien Release Fee – A charge to recover costs related to the preparation of lien and subsequent lien releases.

S. Returned Check Charge – A charge to be applied to an account if a check for payment for any service is returned to the District unpaid by the issuing bank for any reason. If service is disconnected, this charge and the amount of the returned check must be paid before service is restored.

T. Interest Charge – At the request of a residential customer showing by clear and convincing evidence that he or she meet the requirements of Health & Safety Code Section 116914, the District will waive any then outstanding unpaid interest charges no more often than once every twelve months. A separate request shall be filed with the District along with any additional information requested by the District for each 12 month period.

(Ord. No. 1993-03, § 14, 10-18-1993; Ord. No. 1997-01, 4-21-1997; Ord. No. 2020-01, 1-21-2020)

Section 5.02.140 –Policy to Avoid Disconnection for Non-Payment

A. Reduced or Deferred Payments: The District has partnered with United Way of the Desert to provide assistance to customers who need help paying their water bill. To apply: call United Way of the Desert at (760) 323-2731, ext. 23 to make an appointment. For general information on the program visit https://www.mswd.org/bill_assistance.aspx.

B. Alternative Payment Schedule: A customer who is in delinquency per Water Regulations and Service Ordinance and who meets the criteria in Section 12.07 of Ordinance 93-3, as amended, may request an Alternative Payment Schedule or request an extension of time to make payment to avoid termination of service for nonpayment. The District will consider all circumstances surrounding the request when approving or denying a request.

C. Approved amortization plans will be in writing and signed by Customers. Unpaid balances may be amortized over a period not to exceed 12 months from the original date of the bill. The amortized payments will be combined with, and subject to the due date of, the customer's regular bill. The customer must comply with the terms of the amortization plan and remain current as charges accrue in each subsequent billing period. Failure to comply with the terms of an amortization plan will result in the issuance of a written discontinuation notice.

D. Disputed Bills: If the Customer appeals their bill and submits a request for account review, Domestic Water Service shall not be discontinued while the appeal is pending. The District will thereafter determine if Domestic Water Service shall be continued or terminated in accordance with applicable law.

E. Medical Provision: Service will not be terminated for non-payment if the Customer enters into an amortization agreement, alternative payment schedule, or a plan for deferred or reduced payment with respect to all delinquent charges and submits a certification from a primary care provider that the discontinuance of water service would be life threatening or pose a serious threat to the health and safety of a resident on the premises.

F. Service may be terminated regardless of an alternative payment schedule or amortization schedule if notice of disconnection is posted at the property at least five business days prior to the termination date and Customer fails to comply and is at least 60 days delinquent on the amortization agreement, alternative payment schedule or

deferred or reduced payment plan.

G. Service May also be terminated if the Customer fails to pay current residential service charges for 60 days or more while participating in an amortization agreement, alternative payment schedule, or a deferral or a reduction in payment plan for delinquent charges.

(Ord. No. 2020-01, Attachment A, 1-21-2020)

Chapter 5.03 – WATER SHORTAGE CONTINGENCY PLAN

The District hereby adopts the "2021 MSWD Water Shortage Contingency Plan," a copy of which is on file at the office of the District and the District's website, and is available for inspection by the public.

(Ord. No. 2021-01, 7-19-2021)

Myoma Dunes Mutual Water Company



Myoma Dunes Mutual Water Company Water Shortage Contingency Plan

Final Draft

prepared on behalf of

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May 11, 2026

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Myoma Dunes Water Co.

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Attachments

Attachment A. Resolution of the Board of Directors of Myoma Dunes Mutual Water Company to Adopt Mandatory Conservation Measures

1 Introduction

This Water Shortage Contingency Plan (WSCP) describes how the Myoma Dunes Mutual Water Company (MDMWC) intends to predict and respond to foreseeable and unforeseeable water shortages, which occur when available water supplies are reduced to a level that cannot support typical demand at any given time. The WSCP serves as a planning document to guide the MDMWC governing board, staff, and the public by identifying response actions that allow for efficient and accountable management of water shortages with predictability and transparency. While the WSCP does not provide absolute direction, it offers a range of response options to address varying water shortage conditions.

Water shortages may be triggered by hydrologic limitations in supply—such as prolonged periods of below-normal precipitation and runoff—failures or limitations in supply or treatment infrastructure, or a combination of both. Hydrologic or drought-related shortages typically develop and subside gradually, whereas infrastructure-related shortages tend to occur more suddenly and unpredictably. Water supplies may be interrupted or substantially reduced due to events such as drought, earthquakes that damage delivery or storage facilities, regional power outages, or toxic spills that affect water quality.

This WSCP describes the following:

1. **Water Supply Reliability Analysis.** Summarizes the MDMWC's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures.** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Six Standard Shortage Stages.** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions.** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.
5. **Communication Protocols.** Describes communication protocols under each stage to ensure customers, the public, and MDMWC governing board are informed of shortage conditions and requirements.
6. **Compliance and Enforcement.** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority.** Lists the legal documents that grant MDMWC the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation.** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting.** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.
10. **WSCP Refinement Procedures.** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions.** Identifies exemptions for ponds, lakes, fountains, pools, and spas, etc.
12. **Plan Adoption, Submittal, and Availability.** Describes the process for the WSCP adoption, submittal, and availability after each revision.

MDMWC is one of six agencies in the Coachella Valley participating in the development of a 2025 Regional Urban Water Management Plan (RUWMP). Each agency is adopting the RUWMP to meet its reporting requirements under the Urban Water Management Planning Act (UWMP Act). Each agency is also adopting its own WSCP. The agencies have sought to align their shortage levels and shortage response actions to the extent possible, with the intent of reducing confusion for neighboring customers during a shortage. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the California Department of Water Resources (DWR) 2025 UWMP Guidebook (DWR 2026)

2 Water Supply Reliability Analysis

This section provides a summary of the supply reliability analysis presented in Chapter 4 of the RUWMP and highlights key issues that could create a shortage condition.

The water supplies of the agencies in the Coachella Valley generally have a high degree of reliability. The RUWMP participating agencies meet most of their urban demands with groundwater produced from the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. The groundwater basin is large enough to provide storage that allows continued production during dry periods. Because production exceeds the recharge provided by precipitation and return flows, the agencies use imported water to recharge the groundwater basin. These sources of imported water for recharge include:

- Colorado River water that CVWD receives primarily through the Coachella Canal for replenishment at Thomas E. Levy Groundwater Replenishment Facility (GRF) and Palm Desert GRF, and a small portion through Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct for replenishment at Whitewater River GRF.
- State Water Project (SWP) water that CVWD and Desert Water Agency (DWA) have rights to receive. Because the SWP infrastructure does not extend into the Coachella Valley, CVWD and DWA have an exchange agreement with MWD to receive Colorado River water from its Colorado River Aqueduct to for replenishment at Whitewater River GRF. In return, MWD receives SWP water through the SWP infrastructure based on the annual SWP allocations to CVWD and DWA.

Drought conditions are not expected to affect CVWD's Colorado River water supply due to the agency's high priority allocation. Colorado River water is not a direct source of urban water supply; it is used for groundwater replenishment and non-potable irrigation uses. If a reduction in Colorado River water supply occurred, CVWD would initially reduce deliveries to groundwater replenishment projects. Subsequent reductions in delivery would be applied by the CVWD Board of Directors as provided in CVWD's Canal Water Shortage Contingency Plan, Chapter 3.10, Article XII of CVWD's administrative code (CVWD 2026).

Drought conditions in the Sierra Nevada would influence the SWP water allocation; thus reducing the SWP Exchange water received by CVWD and DWA. Reductions in SWP allocations have occurred during prior droughts and SWP reliability is forecasted by DWR to continue declining with future climate changes (DWR 2025). SWP exchange water is used for replenishment of the Indio and Mission Creek Subbasins and is not a direct source of urban water supply. Consequently, water use restrictions due to drought involving the SWP water supply would likely be implemented only during a prolonged drought.

During dry periods when less imported water is available, groundwater production will exceed the amount of recharge, and the volume of groundwater in storage will be reduced. However, these reductions can be reversed in wet years when additional imported water is available. The Coachella Valley Groundwater Basin is a large basin which provides a buffer during dry periods, thus allowing the agencies to develop long-term plans and programs to manage regional water supplies. The Indio Subbasin Alternative Plan Update (Indio Subbasin GSAs 2021) and Mission Creek Subbasin Alternative Plan Update (Mission Creek Subbasin Management Committee 2021) both address groundwater sustainability considering hydrologic variability of replenishment supplies and other local water sources.

The reliability analysis for MDMWC is presented in Section 9.7 of MDMWC's chapter of the RUWMP. Although that analysis demonstrates that the region's urban water supply is reliable, there are potential issues that could create a shortage condition. These include:

- An extended drought more severe than historic events, possibly exacerbated by climate change.
- A natural disaster or a malevolent act that leads to prolonged disruption of imported water delivery from the Colorado River or the SWP.
- Reductions in imported water supply due to environmental restrictions related to endangered species or habitat protection.
- Identification of a currently unregulated contaminant that has widespread effects on the region's groundwater supply.
- Regulatory mandates to reduce water use.

Water shortage contingency planning provides a way to plan for these risks and anticipate actions that can be implemented to manage the impacts. This plan describes how MDMWC intends to respond to such shortage events. The responses have been aligned with those of other RUWMP participating agencies to the extent possible.

3 Annual Water Supply and Demand Assessment Procedures

MDMWC is required to prepare an Annual Water Supply and Demand Assessment (Annual Assessment) and submit it to DWR each year. The Annual Assessment is intended to meet requirements of Water Code Section 10632.1 and present an assessment of the likelihood of a water shortage occurring during the next 12 months. This section of the WSCP outlines the procedures that MDMWC will use to prepare the Annual Assessment. The procedures defined in this section will allow MDMWC to follow a consistent annual procedure for making the determination of whether to activate the WSCP.

3.1 Decision Making Process

DWR requires a defined decision-making process for performing the Annual Assessment. The process and anticipated timeline are presented in Table 1.

Table 1. Annual Assessment Decision-Making Process

Anticipated Timeline of Each Year	Activities
February	MDMWC staff review available data related to anticipated supplies and demands.
March	The six agencies participating in the Coachella Valley RUWMP review the data and determine whether a consistent region-wide determination on water supply reliability can be made. If needed, individual agencies may elect to activate their WSCP at different shortage levels than other participating agencies.
April	MDMWC staff will make a determination whether to recommend implementation of shortage response actions.
May	If shortage response actions are to be implemented, MDMWC management will present the recommendation to the governing board for consideration. If the governing board decides to implement the WSCP, it will provide public notice of a hearing to consider changes in the implementation of the shortage response actions.
June	MDMWC staff prepares the Annual Assessment and submits to DWR by July 1.

3.2 Data and Methodologies

This section describes the data and methodologies that will be used to evaluate water system reliability for the Annual Assessment.

3.2.1 Evaluation Criteria

MDMWC will rely on locally applicable criteria for each annual assessment. These criteria will include the findings of the annual reports prepared for the Indio Subbasin and the Mission Creek Subbasin for compliance with the Sustainable Groundwater Management Act. Findings from the annual Engineer's Report on Water Supply and Replenishment Assessment will also be incorporated.

3.2.2 Water Supply

MDMWC's anticipated supplies will be quantified for the near-term future, and descriptive text will be used to note any anticipated reductions in supply.

3.2.3 Current Year Unconstrained Customer Demand

MDMWC will prepare an estimate of unconstrained demand (as the term is used in Water Code Section 10632(a)(2)(B)(i)). The estimated demand will be calculated using the demand projection approach described in Section 4 of each agency's chapter of the RUWMP, in combination with updated data for connections, climate, changes in land use, and recent water usage history.

3.2.4 Current Year Supply

MDMWC will describe the anticipated use of water supplies for the coming year, with the anticipation that the following year will be dry. The supplies will be characterized in a manner consistent with the RUWMP, in combination with updated data for climate and recent observations.

3.2.5 Infrastructure Considerations

MDWMC will describe any potential infrastructure constraints on the ability to deliver adequate supplies to meet expected customer demands in the coming year. MDMWC will verify that its system of wells, pipelines, pump stations, and storage tanks have adequate capacity to deliver the anticipated demands. MDMWC will describe any anticipated capital projects that are intended to address constraints in production, treatment, or distribution.

3.2.6 Other Factors

MDMWC will describe any specific locally applicable factors that could influence or disrupt supplies. MDMWC will also describe unique local considerations that are considered as part of the Annual Assessment.

4 Six Standard Water Shortage Levels

The RUWMP participating agencies have elected to use the six standard shortage levels included in guidance documents prepared by DWR. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50-percent shortage compared to the normal reliability condition). These levels are identified in Table 2.

Table 2. Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Description	Narrative Summary of Shortage Response Actions
1	Up to 10%	Normal water supplies	Mandatory prohibitions defined by the state, ongoing rebate programs
2	Up to 20%	Slightly limited water supplies	Outdoor water use restrictions on time of day, increased water waste patrols
3	Up to 30%	Moderately limited water supplies	Outdoor water use restrictions on days per week, restrictions on filling swimming pools
4	Up to 40%	Limited water supplies	Limits on new landscaping, expanded public information campaign
5	Up to 50%	Significantly limited water supplies	Limits on watering of parks or school grounds
6	Greater than 50%	Severe shortage or catastrophic incident	No potable water use for outdoor purposes

Each level in Table 2 represents an anticipated reduction in the supplies that would normally be available to MDMWC. These supply reductions could be the result of a variety of potential causes including natural forces, system component failure or interruption, regulatory actions, contamination, or any combination of factors. MDMWC may need to activate shortage levels across its entire service area or within certain areas that are impacted by an event.

The levels involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. The locally appropriate shortage response actions that would be taken at each level to address the resulting gap between supplies and demands are described in the following section.

5 Shortage Response Actions

This section describes the shortage response actions that would be taken by MDMWC at each shortage level. These actions have been grouped into categories including:

- Supply Augmentation Actions
- Demand Reduction Actions and Mandatory Use Restrictions
- Operational Changes

5.1 Supply Augmentation

For long-range planning, MDMWC continues to evaluate opportunities for transfers, exchanges, and other purchases of imported water to increase supply reliability. CVWD and DWA collaborate to replenish the Indio and Mission Creek Subbasins with imported water, creating a stored supply that can be used for emergencies or longer-term shortages. CVWD and DWA are also making investments in increasing supply reliability from the SWP through the Delta Conveyance Facility and in securing new supplies like Sites Reservoir.

Additionally, the RUWMP participating agencies continue to implement water conservation measures and increase use of recycled water usage to reduce groundwater demand. MDMWC's demand management programs are described in MDMWC's chapter of the RUWMP.

In their WSCP, agencies have the option of identifying short-term supply augmentation actions that would be taken during a shortage. These actions are intended to be separate from the long-range planning efforts to sustainably manage the groundwater basin. The short-term supply augmentation measures that could be implemented are presented in Table 3.

Table 3. Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value	
1 - 6	Exchanges	Volume	Medium	Emergency connections with neighboring agencies could be activated or constructed to help exchange water with adjoining systems.
5	Other Actions	Volume	Medium	In areas where recycled water or other non-potable supply is available, customers could be mandated to use these supplies and cease use of potable water.
6	Other Actions	Volume	Medium	Additional non-potable water sources such as new shallow groundwater wells.

5.2 Demand Reduction Actions and Mandatory Use Restrictions

The RUWMP participating agencies have aligned their demand reduction actions to the greatest extent possible, while allowing each agency to tailor its response to the unique characteristics of its service area. The agencies conducted public workshops to gather input on actions that could be taken during a water shortage. The input from stakeholders was used to select and prioritize actions that reflected the values of the community. Key elements of the input included:

- The importance of recognizing the conservation efforts that many customers have already made and not imposing requirements for all customers to meet the same percentage reduction in water use.
- The importance of involving Homeowner Associations (HOAs) to help implement and communicate response actions to individuals.
- The benefits of tiered rates in allowing customers to pay less for their basic efficient use and more for excessive use.
- A balanced program should include incentives (such as expanded rebates for turfgrass removal) as well as penalties (such as drought rates).
- A range of approaches is needed to communicate with customers and end users, including social media, web sites, bill inserts, presentations, and virtual tours, ideally in multiple languages.

The demand reduction actions that could be implemented at each shortage level are shown in Table 4. During a shortage, MDMWC may implement some or all of the actions as needed, depending on actual conditions. .As described in Section 9.9 of MDMWC's chapter of the RUWMP, MDMWC implements demand management measures (DMMs) to increase water use efficiency. The RUWMP includes description of water waste prevention ordinances, metering, conservation pricing, and public education and outreach programs for conservation.

Table 4. Demand Reduction Actions

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
1	1.1	Applying any water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.	Volume	Low	No
	1.2	Using any water in a fountain or other decorative water feature is prohibited, unless the water recirculates.	Volume	Low	No
	1.3	Applying water to driveways, sidewalks, concrete or asphalt is prohibited unless to address immediate health and safety needs. Reasonable pressure washer or water broom use is permitted.	Volume	Low	No
	1.4	Spray irrigation of outdoor landscapes during and within 48 hours after rainfall of 0.10 inches is prohibited.	Volume	Low	No
	1.5	Using a hose to wash a vehicle, windows, or solar panels is prohibited unless an automatic shut-off nozzle or pressure washer is used.	Volume	Low	No
	1.6	Broken sprinklers shall be repaired within five business days of notification by agency, and leaks shall be repaired as soon as practical.	Volume	Low	No
	1.7	Draining and refilling of private swimming pools is discouraged, unless necessary for health and safety or leak repair.	Volume	Low	No
	1.8	Hotels will provide guests the option of choosing not to have towels and linens laundered daily.	Volume	Low	No
	1.9	Agency shall discourage overseeding.	Volume	Low	No
	1.10	Agency shall provide rebates for landscape efficiency.	Volume	High	No
	1.11	Agency shall offer water use surveys/audits.	Volume	Medium	No
	1.12	Agency shall provide rebates on plumbing fixtures and devices.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
2	2.1	Outdoor water use is prohibited during daylight hours for spray irrigation except for leak checks or with an agency approved conservation alternative plan.	Volume	Medium	Yes
	2.2	Restaurants can serve water only on request.	Volume	Low	Yes
	2.3	Agency shall encourage use of non-potable water for construction, if available.	Volume	Low	No
	2.4	Agency shall actively discourage overseeding.	Volume	Medium	No
	2.5	Agency shall reduce outdoor water budget by 10%	Volume	Medium	Yes
	2.6	Agency shall expand public information campaign.	Volume	Medium	No
	2.7	Agency shall increase water waste patrols.	Volume	Medium	Yes
	2.8	Agency shall reduce hydrant and dead-end line flushing.	Volume	Low	No
3	3.1	Outdoor water use is allowed only three days a week for spray irrigation (Monday, Wednesday, and Friday).	Volume	High	Yes
	3.2	Drip or subterranean irrigation is allowed seven days per week, during non-daylight hours.	Volume	Medium	Yes
	3.3	Commercial nurseries are to use water only on alternate days during non-daylight hours for outside operations.	Volume	Low	Yes
	3.4	Decorative ponds, non-irrigation system golf course water hazards, fountains, and other waterscape features are not to be filled or replenished.	Volume	Low	Yes
	3.5	No filling of swimming pools or landscaping ponds unless necessary for health and safety or leak repair.	Volume	Low	Yes
	3.6	Commercial car washes must use recycled water or recirculating water systems.	Volume	Medium	Yes
	3.7	Spray irrigation of medians and parkways is prohibited.	Volume	Medium	Yes
	3.8	Agency shall encourage counties, cities, Homeowners Associations (HOAs) and other enforcement agencies to suspend code enforcement and fines for brown turfgrass areas and to otherwise comply with new State laws regarding limitations on such enforcement.	Volume	Low	No
	3.9	Agency shall strengthen customer billing messages with use comparisons.	Volume	Medium	No

Shortage Level	ID	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Penalty or Enforcement
			Volume or Percentage	Shortage Gap Reduction Value	
	3.10	Agency shall implement water use audits targeted to key customers to ensure compliance with directives.	Volume	Medium	No
	3.11	Agency shall expand rebate programs.	Volume	Medium	No
4	4.1	Turfgrass landscapes may not be watered except where subterranean or non-potable water systems are used.	Volume	High	Yes
	4.2	Agency shall implement or modify drought rate surcharge.	Volume	High	Yes
	4.3	Agency shall reduce outdoor water budget by up to 25%.	Volume	High	Yes
	4.4	Agency shall expand public information campaign.	Volume	Medium	No
5	5.1	Watering turfgrass is prohibited.	Volume	High	Yes
	5.2	The use of misting systems is prohibited.	Volume	Medium	Yes
	5.3	Turfgrass at parks and school grounds are to be watered with recycled water, if available, or not at all.	Volume	Medium	Yes
	5.4	Golf course greens and tees may be watered no more than two times per week during non-daylight hours with recycled water, or not at all.	Volume	Medium	Yes
	5.5	Trees, desert plants and shrubs may be watered only with drip, subterranean or non-adjustable bubbler irrigation systems during non-daylight hours.	Volume	High	Yes
	5.6	Agency shall reduce outdoor water budget by up to 50%.	Volume	High	Yes
	5.7	Agency shall impose moratorium or net zero demand on new connections.	Volume	N/A	Yes

5.3 Operational Changes

MDMWC has identified potential operational changes that could be made to help address a short-term gap between demands and available supplies. These include improved monitoring and analysis of customer water usage, reductions in flushing of hydrants and dead-end lines, and use of emergency connections with neighboring water agencies. Some of the potential actions are included in Table 4. MDMWC may also expedite planned system improvement projects that include reduction in water loss (e.g., replacement of water mains that are experiencing higher rates of leaks and breaks).

5.4 Additional Mandatory Restrictions

MDMWC has identified a series of restrictions that could be implemented at different shortage levels. These restrictions are included in the demand reduction actions in Table 4.

5.5 Emergency Response Plan

The Water Code requires that an agency's WSCP address catastrophic water shortages and plans to address them. This information can be addressed in the agency's Emergency Response Plan (ERP). MDMWC's ERP contains sensitive information related to potential vulnerabilities or impacts of natural disasters or malevolent acts. Therefore, these documents are not typically made publicly available.

MDMWC's ERP outlines specific disaster-related procedures to guide staff in responding efficiently to catastrophic interruptions of water supply.

Five of the RUWMP participating agencies collaborate on planning efforts, including emergency response, through the Coachella Valley Regional Water Management Group (CVRWMG). In addition, CVWD, DWA, Indio, and MSWD are members of the California Water/Wastewater Agency Response Network (CalWARN), which supports and promotes emergency preparedness. More information about CalWARN is available at their web site at www.calwarn.org.

The region's imported water supplies from the Colorado River and the SWP could be disrupted by an earthquake. Because the agencies use local groundwater to meet urban demands, the agencies could continue to meet short term urban demands with groundwater production. The agencies have installed backup generators at key water production facilities to allow continued operation during a power outage.

DWR has plans in place to make emergency repairs to the SWP, and MWD has plans in place to make emergency repairs to the CRA. CVWD has plans to make emergency repairs to the Coachella Canal. CVWD staff receives regular Incident Command System (ICS) training through the Federal Emergency Management Agency (FEMA), and drills are conducted routinely. CVWD remotely monitors the status of most key facilities at CVWD headquarters, which enables it to detect areas affected by disasters.

RUWMP participating agencies also participate in ICS training and regularly monitor key water facilities remotely.

If imported water supplies were disrupted for an extended period, it would reduce the water supply available for replenishment of the groundwater basin. It could also lead to increased groundwater pumping by non-urban users who normally use imported canal water. MDMWC would implement levels of this WSCP as needed if pumping needed to be decreased while imported water supplies were interrupted.

5.6 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5 requires agencies to assess seismic risk to water supplies as part of their WSCP. The code also requires a mitigation plan for managing seismic risks. In lieu of conducting their own seismic risk assessment, which can be a lengthy process, suppliers can comply with the Water Code requirement by submitting the relevant local hazard mitigation plan or multi-hazard mitigation plan.

The Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) was updated in 2025 (Riverside County 2023). The Riverside County MJLHMP includes an assessment of the region's vulnerability to a broad range of hazards, including earthquakes. It also describes mitigation strategies

and actions to reduce the impacts of a seismic event. The RUWMP participating agencies continue to include seismic risk assessment in their planning process for system improvements.

5.7 Shortage Response Action Effectiveness

As a standard operating procedure, water is tracked through the production, distribution, and billing systems. During water shortage conditions, water use can be measured in comparison to what is considered to be a normal year demand (i.e., current customer base with approximately average rainfall), or in reference to a specific base year as may be dictated by Statewide requirements.

The effectiveness of actions initiated at each shortage response is challenging to measure and can vary significantly. Effectiveness is also impacted by successful communication and outreach efforts. It is also difficult to assess the effectiveness of each activity separately as each stage implements several activities at once. For the purpose of WSCP implementation, it is assumed that the upper end of the water savings would come from the use of multiple demand reduction actions in a stage. Reduction in the shortage gap for Stages 2-6 assume all measures in the previous stage(s) are implemented and those savings are counted toward the total reduction in the shortage gap.

6 Communication Protocols

Timely and effective communication is a key element of WSCP implementation. MDMWC will need to inform customers, the general public, and other government entities of WSCP actions taken during a water shortage (either one determined by the Annual Assessment, an emergency, catastrophic, or other event). An overview of planned communication approaches is provided in Table 5. These protocols have been aligned between the RUWMP participating agencies where possible, but some are tailored to the needs of MDMWC's service area. MDMWC will adjust its communication strategy as needed to address issues that are impacting the entire service area or limited areas.

Table 5. Communication Plan Outline

At all times	Level 1 Up to 10% Voluntary Conservation	Level 2 Up to 20% Mandatory Conservation	Levels 3 and 4 Up to 30% or 40% Mandatory Conservation	Levels 5 and 6 Up to 50% or Over 50% Mandatory Conservation
Standard outreach efforts in effect (media relations, social media, website)	Update message platform to reflect conditions, District response, and needed actions from public	Update campaign and messages to generate immediate actions/behaviors by public, include information on enforcement actions	Update campaign and messages to raise awareness for more severe water-saving actions/behaviors by public, highlight need for reduced outdoor water use	Update campaign and messages to reflect extreme or emergency condition and likely need to focus water use on health/safety needs
Promote ongoing Water Use Efficiency (WUE) programs and tools and partnerships designed to achieve long-term water management goals	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce status change to key stakeholders and general public (e.g., News release, social media, etc.)	Announce emergency status to key stakeholders and general public (e.g., News release, social media, etc.)
Standard coordination with MWD and regional partners	Include increased conservation messages on website and in standard outreach efforts; provide regular condition updates to stakeholders/media	Supplement Level 1 activities with additional tactics as needed; provide regular condition updates to stakeholders/media	Supplement Level 2 outreach with additional tactics as needed; provide regular updates to stakeholders/media on conditions	Supplement Level 3-4 outreach with additional tactics as needed; provide regular condition updates to stakeholders/media on conditions
Board reports on public communication and water-use efficiency outreach activities at least annually.	Enhance promotion of ongoing WUE programs/tools; deploy targeted advertising	Conduct issue briefings with elected officials, other key civic and business leaders	Conduct specialized outreach to HOAs and local organizations	Suspend promotion of long-term WUE programs/tools to focus on imminent needs
	Initiate regular Board reports on campaign efforts	Increase promotion of ongoing WUE programs/tools	Promote available water assistance resources for vulnerable populations; specialized outreach to impacted industries	Continue enhanced coordination with neighbor agencies and local/state/federal policy makers as needed (e.g., daily or weekly briefings or email updates, etc.)

7 Compliance and Enforcement

This section describes how MDMWC will ensure compliance with and enforce provisions of the WSCP. The RUWMP participating agencies have worked together to align their policies where possible, but each agency implements its compliance and enforcement actions within its service area.

7.1 Penalties

The penalties that could be imposed for non-compliance are summarized in Table 6.

Table 6. Enforcement Actions

Water Shortage Level	First Violation	Second Violation (within 12 months)	Third Violation (within 12 months)	Subsequent Violations	Additional Information
1-6	Written warning	$100 surcharge	$200 surcharge	$400 surcharge	Fifth violation: $500 surcharge and discontinuance of service

7.2 Appeals and Exemption Process

This section describes the appeals and exemption processes.

Any water user violating the regulations and restrictions on water use may receive a written notice for the violation. The water user shall have seven days from receipt of the notice to submit a written request for a hearing. If no hearing is requested, or at the hearing it is determined that the water user has committed a violation, a civil penalty may be levied.

The government codes and ordinances that are used to implement these policies and processes are discussed in Section 7.

8 Legal Authorities

This section describes the legal authorities that MDMWC relies upon to implement the shortage response actions and the associated enforcement actions.

MDMWC is a mutual water company that can enforce the WSCP through a resolution of its Board of Directors. MDMWC's Resolution No. 2015-1 implemented mandatory conservation measures. A copy of the resolution is included in Attachment A.

8.1 Declaration of Water Shortage

In accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1 general provisions regarding water shortage emergencies, MDMWC shall declare a water shortage emergency in the event of a catastrophic interruption in supply.

8.2 Proclamation of Local Emergency

MDMWC shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Table 7.contains a list of contacts for all cities or counties for which the RUWMP participating agencies provide service in the WSCP. Along with developed coordination protocols, this can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

Table 7. City and County Coordination on Proclamation of Emergencies

City or County	Contact	CVWD	CWA	DWA	Indio	MDMWC	MSWD
Imperial County	Office of Emergency Services	X					
Riverside County	Emergency Management Department	X	X	X	X	X	X
City of La Quinta	Emergency Management Division	X			X	X	
City of Indio	Emergency Services Coordinator	X	X		X		
City of Coachella	Emergency Services Coordinator	X	X		X		
City of Palm Desert	Emergency Services Coordinator	X					
City of Cathedral City	Emergency Manager	X		X			
City of Indian Wells	Emergency Services Coordinator	X					
City of Rancho Mirage	Emergency Services Coordinator	X					
City of Palm Springs	Emergency Management Coordinator			X			X
City of Desert Hot Springs	Emergency Services Coordinator			X			X

9 Financial Consequences of WSCP Implementation

This section describes the anticipated financial consequences to MDMWC of implementing the WSCP. The description includes potential reductions in revenue due to lower water sales and increased expenses associated with implementing the shortage response actions.

9.1 Financial Impacts and Mitigation Action

Potential financial impacts of implementing the WSCP could include:

- Reduced revenue from reduced water use
- Increased staff costs for tracking, reporting, patrolling, and enforcing restrictions
- Economic impacts associated with water-dependent businesses in the service area Potential mitigation measures include:
- Triggering of drought rate structures or surcharges
- Using financial reserves
- Reducing operation and maintenance expenses (expenses related to source of supply and pumping will fall due to reduced water production)
- Deferring capital improvement projects
- Reducing future projected operation and maintenance expenses
- Increasing fixed readiness-to-serve charge

- Increasing commodity charge and water adjustment rates to cover revenue shortfalls
- Seeking alternative source of funding, such as state or federal grants or loans
- Other financial management mechanisms

MDMWC will monitor financial conditions during a water shortage and take appropriate actions as needed. MDMWC maintains financial reserves that can be used to continue operations during a period of reduced water sales. MDMWC has the ability to increase water rates or implement surcharges or penalties to increase revenues from water sales.

9.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

To ensure customers comply with the restrictions implemented in a water shortage emergency, additional costs may be incurred to monitor and enforce response actions. The incurred cost may vary depending on the shortage stage and duration of the water shortage emergency. The cost of compliance may be tracked when a shortage is declared. MDMWC may track staff time and resources used to implement the WSCP, including reduced revenue, implementing and enforcing shortage response actions, and communication and outreach efforts.

10 Monitoring and Reporting

This section describes how MDMWC will monitor and report on implementation of the WSCP. MDMWC will gather data on key water use metrics and use the data to evaluate the effectiveness of response actions in achieving their intended water use reduction purposes. MDMWC will also gather data on customer compliance to evaluate the effectiveness of enforcement actions. MDMWC will gather and report data at frequencies adequate to meet reporting requirements established by the State Water Resources Control Board and other government agencies, as needed.

MDMWC will monitor water use by customers using billing systems and operational control systems to monitor production and consumption. Each customer is metered, and billing records will be compiled and used to observe trends in water consumption. Each groundwater well and water connection point is also metered, and production records will be used to observe trends in water production. Levels in reservoirs can be monitored using the operational control systems to help identify potential high usage or leaks.

MDMWC staff may also perform field visits and record observations to monitor water use and identify potential issues for follow-up.

For agencies that have budget-based rates, the consumption by customers will be compared to the water budgets to determine effectiveness of response actions. For agencies without defined water budgets for each customer, the consumption records will be aggregated by customer class to evaluate response actions and identify potential additional measures.

11 WSCP Refinement Procedures

MDMWC will monitor the implementation of this plan to evaluate its effectiveness as an adaptive management tool. The monitoring and reporting program described in Section 9 will provide information on the effectiveness of the shortage response actions during any shortage levels that may be invoked. If MDMWC determines that the shortage response actions are not effective in producing the desired results, MDMWC will initiate a process to refine the WSCP. MDMWC will consider the addition of new shortage response actions, or changing the levels when shortage response actions are implemented. Suggestions for refinements will be collected from agency staff, customers, industry experts, and the general public.

The RUWMP participating agencies will share data and suggestions for refinement to identify opportunities to increase the effectiveness of the WSCP while maintaining alignment with other agencies in the region when possible.

12 Special Water Feature Distinction

The RUWMP participating agencies have distinguished swimming pools and spas as recreational water features, while non-pool and non-spa water features are considered decorative water features. This distinction is used in the shortage response actions because decorative water features have the potential to use recycled water, while most pools and spas (recreational water features) use potable water for health and safety considerations.

13 Plan Adoption, Submittal, and Availability

This 2025 WSCP was presented for adoption at the MDMWC public meeting on June 11, 2026. Notifications were sent to the cities and counties as described in the 2025 RUWMP. To comply with the notice to the public, MDMWC published notices in the local newspaper at least two weeks in advance with five days between publications. The WSCP was also made available prior to the public hearing.

The WSCP was formally adopted on June 11, 2026, by MDMWC Resolution 2026-03, included in the 2025 UWMP. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at MDMWC's office and online within 30 days of the adoption date.

The WSCP was submitted to DWR via the Water Use Efficiency Data Portal at the same time as the 2025 UWMP, but no later than July 1, 2026. A hard copy of the 2025 UWMP and WSCP were submitted to the California State Library within 30 days of adoption. Electronic and/or hard copies were provided to all cities and counties within MDMWC's service area within 30 days of adoption.

Based on DWR's review of the WSCP, MDMWC will make any amendments in its adopted WSCP, as required and directed by DWR. If MDMWC revises its WSCP, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

14 References

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Attachment A. Myoma Dunes Mutual Water Company Water Efficient Landscape Requirement Ordinance

RESOLUTION NO. 2015-1

RESOLUTION OF THE BOARD OF DIRECTORS OF MYOMA DUNES MUTUAL WATER COMPANY TO ADOPT MANDATORY CONSERVATION MEASURES

WHEREAS, the State of California is facing a historic drought; and

WHEREAS, on January 17, 2014, the Governor of California proclaimed a State of Emergency and on April 25, 2014, the Governor proclaimed a continued State of Emergency due to the historic drought affecting the state; and

WHEREAS, on April 1, 2015, the Governor issued an Executive Order directing the State Water Resources Control Board ("SWRCB") to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 2016; and

WHEREAS, on May 5, 2015, the SWRCB amended its drought-related emergency regulation to achieve a statewide 25% reduction in potable urban water usage through February 2016 as directed in the Executive Order; and

WHEREAS, the drought-related emergency regulation requires each urban water supplier whose average July-September 2014 residential gallons per capita per day ("R-GPCD") was 215 or more to reduce its total potable water production by 36% for each month as compared to the amount used in the same month in 2013; and

WHEREAS, Myoma Dunes Mutual Water Company ("MDWC") is an urban water supplier whose average July-September 2014 R-GPCD was 613.7 and is therefore required to reduce its total potable water production by 36%;

NOW, THEREFORE, pursuant to the MDWC Water Shortage Contingency Plan and Section 12.2 of the MDWC "Regulations Governing Water Service," the Board of Directors of MDWC does hereby adopt mandatory conservation measures to achieve a 36% reduction in MDWC's total potable water production in compliance with SWRCB emergency regulations as follows:

BE IT RESOLVED that commencing on June 1, 2015, watering of turf landscapes is limited to Monday, Wednesday and Friday before 7 a.m. and after 8 p.m. Watering of non-turf and outdoor ornamental landscapes is permitted before 7 a.m. and after 8 p.m. on all days of the week.

BE IT FURTHER RESOLVED that violations of this resolution shall be subject to penalties as follows:

(1) First Violation	-	written warning
(2) Second Violation	-	$100.00 surcharge
(3) Third Violation	-	$200.00 surcharge plus 15% consumptive rate increase
(4) Fourth Violation	-	$400.00 surcharge plus 25% consumptive rate increase
(5) Fifth Violation	-	$500.00 and discontinuance of service.

BE IT FURTHER RESOLVED that this resolution shall become effective immediately upon adoption.

BE IT FURTHER RESOLVED that this resolution shall remain in effect until further notice.

ADOPTED this 15th day of May, 2015.

By: _____
Joy Dunlevie, Director

By: _____
Geoff Dunlevie, Director

By: ABSENT
Michael Dunlevie, Director

By: _____
Michele Donze, Director

Appendix D

Agreements Related to Water Management

AMENDED AND RESTATED AGREEMENT BETWEEN THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, COACHELLA VALLEY WATER DISTRICT, AND DESERT WATER AGENCY FOR THE EXCHANGE AND ADVANCE DELIVERY OF WATER

This 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water (Agreement) is made this 11th day of December, 2019 by THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA (Metropolitan), COACHELLA VALLEY WATER DISTRICT (Coachella), and DESERT WATER AGENCY (Desert). Metropolitan, Coachella, and Desert are individually referred to as a "Party" and collectively as "Parties."

RECITALS

A. Metropolitan is a metropolitan water district organized under the Metropolitan Water District Act, codified at section 109-1, et seq. of West's Appendix to the California Water Code, and engaged in developing, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Metropolitan is a State Water Project (SWP) contractor and receives water through the SWP. Metropolitan also owns and operates the Colorado River Aqueduct through which Metropolitan receives Colorado River water.

B. Coachella is a county water district organized under the California County Water District Law, codified at section 30000, et seq. of the California Water Code, and utilizes Colorado River water in Riverside County for groundwater recharge as well as potable and irrigation purposes.

C. Desert is an independent special district organized under the Desert Water Agency Law, codified at section 100-1, et seq. of West's Appendix to the California Water Code, and also utilizes Colorado River water in Riverside County for groundwater recharge purposes.

D. Coachella and Desert are SWP contractors without physical connections to the SWP. Rather than construct physical connections to the SWP, Coachella and Desert entered into separate agreements in 1967 with Metropolitan (1967 Exchange Agreements) under which Coachella and Desert deliver their State Project Water to Metropolitan, and in exchange, Metropolitan delivers a like amount of Colorado River water to Coachella and Desert.

E. In 1983, Metropolitan entered into new separate exchange agreements with Coachella ("Agreement Between the Metropolitan Water District of Southern California and the Coachella Valley Water District for Exchange of Water") and Desert ("Agreement Between the Metropolitan Water District of Southern California and Desert Water Agency for Exchange of Water") (collectively, the "1983 Exchange Agreements") which continued the prior exchange arrangements with certain modifications and expressly superseded the 1967 Exchange Agreements.

F. In 1984, the Parties entered into the "Advance Delivery Agreement" which allowed Metropolitan to deliver Colorado River water to be credited against Metropolitan's future water exchange obligations under the 1983 Exchange Agreements.

G. In 2003, the Parties entered into "The 2003 Exchange Agreement" which amended the 1983 Exchange Agreements and the Advance Delivery Agreement. The 2003 Exchange Agreement also provided for: the transfer from Metropolitan to Coachella and Desert of 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP along

with the associated annual fixed and variable charges and the corresponding exchange of a like quantity of Metropolitan's Colorado River water or credits pursuant to the Advance Delivery Agreement; an annual option for Metropolitan to call-back the 100,000 acre-foot transfer under certain conditions and to reimburse Coachella and Desert for those SWP charges in that year; and a process by which the Parties would agree to operating criteria in order to better coordinate delivery and financial transactions.

H. Also in 2003, the Parties entered into separate amendments to their respective SWP Agreements with the Department of Water Resources (DWR) which approved the Parties' Table A transfers pursuant to The 2003 Exchange Agreement. (Amendment No. 18 to the Water Supply Contract between DWR and Coachella dated October 10, 2003; Amendment No. 18 to the Water Supply Contract between DWR and Desert dated November 3, 2003; Amendment Nos. 27 and 28 to the Water Supply Contracts between DWR and Metropolitan dated October 24, 2003.)

I. In 2004 and 2007, the Parties entered into letter agreements that established operating criteria pursuant to the 2003 Exchange Agreement. (November 9, 2004 Letter Agreement Regarding Implementation of 2003 Exchange Agreement and November 19, 2007 Letter Agreement Regarding Implementation of 2003 Exchange Agreement – Establishment of Long-Term Operating Criteria, collectively the "2004 and 2007 Letter Agreements".) The 2004 and 2007 Letter Agreements included provisions for the Parties to consider adding water to the amounts of Table A SWP water agreed upon for exchange.

J. In 2012, Metropolitan and Coachella entered into a letter agreement pursuant to the 2004 and 2007 Letter Agreements which provided the terms and conditions for the annual

delivery and exchange of up to 16,500 acre-feet of non-Table A SWP water that Rosedale Rio Bravo Water Storage District provides to Coachella (2012 Rosedale Letter Agreement).

K. In administering the various agreements, the Parties have gained operational experience and thus desire through this Amendment to better manage their water supplies.

L. The purposes of this Agreement are to: amend and restate, and to consolidate into this agreement the provisions of the various agreements setting forth the manner in which the exchanges, advance deliveries, and credits in those agreements will be implemented; end Metropolitan's right to call back 100,000 acre-feet of Table A water; allow Metropolitan to defer certain Colorado River water deliveries to Coachella and Desert; more equitably share among the Parties the operational benefits and risks of available SWP supplies; provide for Coachella and Desert to participate with Metropolitan in sharing water management costs in wetter years; and simplify the payment structure.

M. Thus, in consideration of the mutual covenants of the Parties and for good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed as follows:

AGREEMENT

1. Definitions

Article 21 Supplies – State Project Water made available to the Parties in any year pursuant to Article 21 of the State Water Contracts.

Carryover Supplies – State Project Water stored by a Party in State Water Project surface conservation facilities pursuant to the State Water Contracts.

Colorado River Aqueduct – The Aqueduct system owned and operated by Metropolitan, and used for the transport of water from Lake Havasu on the Colorado River to Lake Mathews in Riverside County.

Exchange Water – Colorado River water delivered to Coachella and Desert by Metropolitan from the Colorado River Aqueduct in exchange for Coachella's and Desert's State Project Water.

Multi-Year Supplies – Water resulting from the contracts and projects listed in Exhibit A of this Agreement, which may be modified by the Parties in writing.

Single-Year Supplies – Water resulting from the contracts and projects listed in Exhibit B of this Agreement, which may be modified by the Parties in writing.

State Project Water – All water which Coachella and Desert have rights to receive under their State Water Contracts including, but not limited to, water Coachella and Desert may acquire from other sources that is conveyed through the State Water Project.

State Water Contracts – The Contract between Coachella and the State of California, dated March 29, 1963, the Contract between Desert and the State of California, dated October 17, 1962, and the Contract between Metropolitan and the State of California, dated November 4, 1960, including all past and future amendments to each such contract, for an imported water supply from the State Water Project.

State Water Project (SWP) – Part of the State Water Resources Development System, authorized and constructed under Section 12930, et seq. of the Water Code, to deliver water to various public agencies throughout the State, including the Parties.

Table A Amount – Each Party's Table A Amount pursuant to its contract with DWR at the time of execution of this Agreement, which for Metropolitan is 1,911,500 acre-feet, for Coachella is 138,350 acre-feet, and for Desert is 55,750 acre-feet.

2. Prior Agreements Amended and Restated

This Agreement amends and restates the following prior agreements among the Parties:

A. Agreement Between The Metropolitan Water District of Southern California and the Coachella Valley Water District for Exchange of Water, dated July 7, 1983.

B. Agreement Between The Metropolitan Water District of Southern California and Desert Water Agency for Exchange of Water, dated July 7, 1983.

C. Advance Delivery Agreement, dated June 28, 1984.

D. The 2003 Exchange Agreement, dated October 24, 2003.

E. Letter Agreement Regarding Implementation of 2003 Exchange Agreement, dated November 9, 2004.

F. Letter Agreement Regarding Implementation of 2003 Exchange Agreement – Establishment of Long-Term Operating Criteria, dated November 19, 2007.

G. Letter Agreement Between The Metropolitan Water District of Southern California and the Coachella Valley Water District regarding Agreement to Deliver non-State Water Project Water in Exchange for Colorado River Water, dated November 13, 2012.

3. Coordination Committee

Each Party will designate one person to form a Coordination Committee. The purpose of the Coordination Committee is to provide an opportunity to share information among the Parties regarding water management, and to ensure that any current and potential actions taken are consistent with the goals of this Agreement. The person designated by Metropolitan to be on the

Coordination Committee will be the Chairperson until another Chairperson is selected by majority vote of the Coordination Committee. The Coordination Committee may elect a new Chairperson at any time. The Chairperson will schedule meetings (at least quarterly, and as conditions dictate) and record meeting minutes. Metropolitan will inform the Coordination Committee of potential capacity and other operational constraints as conditions change during the year.

4. Exchange of Water

A. Exchange of Table A Amounts and Multi-Year Supplies

1. Metropolitan will accept delivery of Coachella's and Desert's Table A Amounts and exchange them for equal quantities of Metropolitan's Exchange Water as provided by this Agreement.

2. Metropolitan will accept delivery of Coachella's and Desert's Multi-Year Supplies and exchange them for equal quantities of Metropolitan's Exchange Water as listed in Exhibit A to this Agreement. The Parties may agree in writing to include additional Multi-Year Supplies in Exhibit A, which will be exchanged in the same manner.

3. There may be limitations on Metropolitan's ability to take delivery of all available Table A Amounts and Multi-Year Supplies in any year. Such limitations include, but are not limited to, insufficient demands within Metropolitan's service area, capacity constraints on the East Branch of the SWP, and the Parties' storage program capacities. These limitations may result in unused Table A Amounts that cannot be scheduled with DWR for delivery within the calendar year. If Metropolitan determines that any such limitations exist, Metropolitan will consult with the Coordination

Committee and will attempt to leave Table A amounts unscheduled at the end of the calendar year for each Party in amounts proportional to the sum of the Parties' Table A Amounts and Multi-Year Supplies.

4. There may be limitations on Metropolitan's ability in a calendar year to take delivery of the Table A Amounts, Multi-Year Supplies, and any Table A Amounts and Multi-Year Supplies that were previously carried over of each Party proportionally by Table A Amounts and Multi-Year Supplies. Such limitations include, but are not limited to, the differential spill of each Party's Carryover Supplies under DWR's spill accounting methodology. In any calendar year that such limitations apply, Metropolitan may take delivery of a higher proportion of one Party's supplies than another Party's supplies, so as to minimize losses due to spills or other causes. Metropolitan will keep an annual record of the deliveries taken from each Party's supplies and will adjust future water orders as necessary in an attempt to make up any delivery imbalance when operational opportunities arise. To the extent that Metropolitan receives a higher percentage of Table A Amounts and Multi-Year Supplies than Coachella or Desert during a year, that amount of water will count against Metropolitan's right to 200,000 acre-feet of advance credit under Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations]. In the event that at the end of any year, the cumulative delivery balance to any Party exceeds 5,000 acre-feet, and if Metropolitan is unable within five years thereafter to make the necessary adjustments to restore the proportional delivery of Table A Amounts and Multi-Year Supplies, the Parties will reconcile the water delivery imbalance by adjusting deliveries of Exchange Water, and

will make any necessary financial adjustments to keep the Parties financially whole, as follows:

a. If at the end of five years, Metropolitan has received a disproportionately higher amount of Table A Amounts and Multi-Year Supplies than Coachella and Desert, then Metropolitan will increase the Exchange Water deliveries to Coachella and Desert by an amount equal to the disproportionate amount of water Metropolitan received, and Coachella and Desert will reimburse Metropolitan for the variable transportation charges that Metropolitan paid DWR to move the water through SWP facilities to Devil Canyon in the year Metropolitan increased Exchange Water deliveries.

b. If at the end of five years, Coachella and/or Desert has received a disproportionately higher amount of Table A Amounts and Multi-Year Supplies than Metropolitan, then Metropolitan will take delivery of Coachella and/or Desert's Table A Amounts and Multi-Year Supplies in an amount equal to the disproportionate amount of water they received, Metropolitan will reimburse them for the variable transportation charges that Coachella and/or Desert paid DWR to move the water through SWP facilities to Devil Canyon in the year Metropolitan takes delivery of the increased Table A Amounts and Multi-Year Supplies, and Metropolitan will not make the equivalent Exchange Water deliveries to Coachella and/or Desert.

c. Should a State Water Contract amendment be ratified that allows for single-year Table A Amount transfers, the Parties may agree to use single-year transfers to accomplish the goal of restoring proportionality in the delivery of Table A Amounts and Multi-Year Supplies.

d. Billing and payment for financial adjustments made under this section 4.A.4. will occur in the calendar year following the fifth year. If any Party asserts to the other Parties, in writing, prior to payment of a reimbursement required by subsections 4.A.4.a. or b. above, that such reimbursement would produce a substantially inequitable financial result due to differences in variable transportation charges by DWR between the year that the Exchange Water or Table A Amounts and Multi-Year Supplies would have been delivered, absent the disproportionate deliveries, and the year that the increased Exchange Water or increased Table A Amounts and Multi-Year Supplies were later delivered to correct the resulting disproportionality, and taking into consideration the inflation that occurred over that period, the General Managers of the Parties will meet in an attempt to mutually agree to the amount of reimbursement necessary to achieve an equitable financial adjustment.

B. Exchange of Single-Year Supplies

1. If sufficient capacity exists after accounting for Table A Amounts and Multi-Year Supplies, Metropolitan will exchange Coachella's and Desert's Single Year Supplies up to the amounts requested by Coachella and Desert for equal quantities of Metropolitan's Exchange Water as listed in Exhibit B to this Agreement. The Parties may agree in writing to include additional Single-Year Supplies in Exhibit B which will be exchanged in the same manner.

2. There may be limitations on Metropolitan's ability to take delivery of all Single-Year Supplies in any year. Such limitations include insufficient demands within Metropolitan's service area, capacity constraints on the East Branch of the SWP, and the Parties' storage program capacities. If Metropolitan determines that any such limitations

exist, Metropolitan will consult with the Coordination Committee and will reduce the amount of water exchanged accordingly.

C. Exchange of Article 21 Supplies

When Article 21 Supplies are available and when Metropolitan determines that it has capacity to take delivery of Article 21 Supplies, Metropolitan will request delivery of Article 21 Supplies for the Parties in proportion to their Table A Amounts to the extent that no Party is harmed by delivery of Article 21 Supplies. Metropolitan will exchange such water of Coachella and Desert for equal quantities of Metropolitan's Exchange Water.

D. Exchange of Carryover Supplies

Metropolitan will exchange Coachella's and Desert's available carryover each year in amounts requested by Coachella and Desert for equal quantities of Metropolitan's Exchange Water. Metropolitan will not exchange Coachella's and Desert's spilled carryover, but will account for it as provided in Section 4.A.4.

E. Coordination Regarding Potential Additional Supplies

Before a Party declines to exercise a right to obtain water under an existing agreement which could be conveyed through the SWP, that Party will consult with the Coordination Committee regarding the potential opportunity for the other Parties to instead obtain such water for themselves. Any terms for addressing such an opportunity will be addressed in a separate agreement among the participants.

F. Delivery Points

Metropolitan will deliver its Exchange Water to Coachella and Desert at the Whitewater service connections, Mission Creek service connections, or at other locations mutually agreed upon by Metropolitan and the Party whose connection is involved. DWR will deliver Coachella's

and Desert's State Project Water for exchange to Metropolitan at: Devil Canyon Afterbay, a connection downstream of Devil Canyon Afterbay, or other locations mutually agreed upon by Metropolitan and the Party whose connection is involved. Each Party must construct and operate its own facilities for the transportation of water subject to this Agreement from the delivery points to and within its own service area.

G. Scheduling of Deliveries

1. After consultation with the Coordinating Committee, Metropolitan will act as Coachella's and Desert's agent in scheduling delivery by DWR of Coachella's and Desert's State Project Water to Metropolitan.

2. Metropolitan will coordinate with Coachella and Desert to best accommodate the Parties' requests regarding delivery times, rates, and points of delivery.

3. To ensure that carryover rights are available to Metropolitan, Coachella and Desert will utilize, by exchange, their entire Table A Amounts within their respective service areas or in adjacent areas in a manner that will benefit use within their respective service areas.

H. Additional Table A Amounts, Multi-year Supplies, and Single-year Supplies

Notwithstanding anything to the contrary in this Agreement, each Party may include in this Agreement up to a combined total of an additional 10,000 acre-feet of Table A Amounts, Multi-year Supplies, and Single-year Supplies without prior written agreement of the other Parties.

5. Advance Delivery of Colorado River Water

A. Right to Deliver Colorado River Water in Advance

Metropolitan may make advance deliveries of Colorado River water to be credited to an advance delivery account provided that the total balance of advance deliveries at any time in the account does not exceed 800,000 acre-feet or such greater amount as may be mutually agreed upon by the Parties, after debiting the account for stored water utilized by Coachella and Desert pursuant to Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations]. Deliveries will be for spreading at the spreading grounds overlying the Whitewater River Sub-basin of the Upper Coachella Valley Groundwater Basin, spreading grounds overlying the Mission Creek Sub-basin, or such other location or purpose (such as in lieu recharge) as may be mutually agreed upon by the Parties. Such advance deliveries will not interfere with normal deliveries of Exchange Water, and any Colorado River water delivered by Metropolitan to Coachella and Desert in any year will first be credited to Metropolitan's obligation to deliver Exchange Water during that year, and the balance of such deliveries will be applied to offset Metropolitan's future Exchange Water delivery obligations as provided in Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations] or Metropolitan's obligations pursuant to the *Delivery and Exchange Agreement Between Metropolitan and Coachella for 35,000 Acre-feet.*

B. Ownership of Advance Deliveries

Advance deliveries of Colorado River water stored in the Whitewater River Sub-basin will be owned by Coachella and Desert in proportion to the amounts of water which they are required to deliver to Metropolitan pursuant to this Agreement. Title passes at the delivery structure.

C. Credit of Advance Deliveries Against Metropolitan's Exchange Obligations

1. At such times as Metropolitan may determine that its available Colorado River water supply is fully required to meet the needs of its member agencies, it will notify Coachella and Desert. Thereafter, and until Metropolitan determines that Exchange Water is again available, Colorado River water delivered in advance to the Whitewater River Sub-basin pursuant to this Agreement will be used by Coachella and Desert, and Metropolitan will be given credit for and will take deliveries of State Project Water made available to Coachella and Desert. So long as such water delivered in advance is available for such credits, Metropolitan will be entitled to continue to receive Coachella's and Desert's State Project Water.

2. Metropolitan will not have an annual call-back option for the 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP transferred to Coachella and Desert pursuant to the 2003 Exchange Agreement.

3. In the event that Metropolitan has been credited with all of the Colorado River water it has delivered to its advance delivery account under Section 5.A. [Right to Deliver Colorado River Water in Advance], Metropolitan will be entitled to 200,000 acre-feet of advance credit which Metropolitan may use in the same manner as if it had delivered the Colorado River water in advance of an exchange. However, so long as a Metropolitan has advance credit available, Metropolitan will deliver to the Mission Creek service connection each year a quantity of Exchange Water equal to the proportionate share of deliveries which Coachella and Desert have committed to allocate to the Mission Creek Sub-basin (as indicated by Coachella and Desert to Metropolitan each July), subject to Metropolitan's delivery capability, so that Metropolitan's advance credit

balance does not affect the timing of replenishment of the Mission Creek Sub-basin. At the end of a calendar year, in the event that the advance credit that Metropolitan receives under this Section 5.C.3. exceeds 20,000 acre-feet, Metropolitan will deliver sufficient Colorado River water to Coachella and Desert so that the advance credit is eliminated by the end of the fifth calendar year thereafter. As an example, if Metropolitan receives more than 20,000 acre-feet of advance credit in 2020, then Metropolitan will deliver sufficient Colorado River water to Coachella and Desert to ensure that all advance credit is eliminated by December 31, 2025.

D. Scheduling of Advance Deliveries

Advance deliveries will be made according to a schedule established by the Parties. Such schedule may be amended from time to time as required for operation, maintenance, and repair, or by local groundwater conditions.

E. Responsibility for Spreading Grounds

Coachella is responsible for operating, maintaining, and repairing the spreading grounds overlying the Whitewater River Sub-basin of the Upper Coachella Valley Groundwater Basin. Desert is responsible for operating, maintaining, and repairing the spreading grounds overlying the Mission Creek Sub-basin.

F. Remaining Advance Delivery Credits

In the event that either Coachella or Desert cancels this Agreement, if any advance delivery credits remain in Metropolitan's advance delivery account, which have not been charged to Coachella's and Desert's delivery obligations to Metropolitan prior to the date the cancellation is effective, Coachella and Desert, consistent with their obligations under this Agreement, will cause DWR to make deliveries of State Project Water to Metropolitan until

Metropolitan has received all remaining advance delivery credit in the same manner as if this Agreement were still in effect.

6. Water Management Cost Sharing

Coachella and Desert will pay a portion of Metropolitan's average long-term costs to store water in Metropolitan's SWP groundwater storage programs in accordance with Exhibit C of this Agreement. Upon request by a Party and no later than 2026, the Parties will discuss whether to amend Exhibit C. Any amendment to Exhibit C must be in writing.

7. Responsibility for Service Connections

Metropolitan is responsible for operating, maintaining, and repairing the existing Whitewater and Mission Creek service connections, including any measuring devices. The existing connections include DWCV-1, DWCV-2, DWCV-2T, DWCV-3, DWCV-4, and DWCV-5. Coachella is responsible for the costs of any improvements it desires to make to the existing Whitewater service connections, including any measuring devices. Desert is responsible for the costs of any improvements it desires to make to the existing Mission Creek service connection, including any measuring devices.

8. Responsibility for Coachella's and Desert's Hydroelectric Plant

Coachella and Desert are responsible for any risk from loss of anticipated revenue from Coachella's and Desert's hydroelectric plant in any year caused by the scheduling and making of deliveries by Metropolitan; provided that Metropolitan will exercise reasonable efforts to schedule deliveries whenever possible so as to permit hydroelectric power generation.

9. Rights of Way

Metropolitan will grant to Coachella and/or Desert such easements in lands owned by Metropolitan as may be necessary for the operation, maintenance, removal, and repair of any

water conveyance facilities downstream from the Whitewater and Mission Creek service connections and through which Metropolitan's Exchange Water is delivered to Coachella and Desert. Coachella and Desert will grant to Metropolitan such easements in lands owned by Coachella and Desert as may be necessary for the operation, maintenance, removal, and repair of the Whitewater and Mission Creek service connections.

10. Proposed Deliveries Requiring a New Turnout from the Colorado River Aqueduct

Proposed deliveries of Colorado River water to a new turnout would require separate terms to be negotiated among the Parties at such time as when a new turnout is requested.

11. Noninterference with Other Water Deliveries

Either Metropolitan or Coachella may acquire Colorado River water from any other person or entity without objection by the other so long as such acquisition does not materially reduce the water available to the other. A breach of this section would cause irreparable injury and will be grounds for the immediate termination of this Agreement pursuant to Section 20 [Cancellation]. This Section will remain in effect for the term of this Agreement, notwithstanding any earlier termination of the Quantification Settlement Agreement dated October 10, 2003.

12. Measurement of Deliveries

All Exchange Water delivered by Metropolitan to Coachella and Desert will be measured by measuring devices and equipment installed at the delivery structures at which Exchange Water is delivered by Metropolitan to Coachella and Desert. The measuring devices may include meters or orifice plates. The costs for the original procurement and installation of measuring devices and equipment have been paid for by Coachella and Desert, and will be operated by Metropolitan. Metropolitan will be responsible for future, in-kind repair and replacement of the

measuring devices pursuant to Section 7 [Responsibility for Service Connections]. Metropolitan will give Coachella and Desert notice and, upon request, the opportunity to be present for any testing Metropolitan performs on the measuring devices and equipment. Metropolitan will share the results of any testing with Coachella and Desert. Coachella and Desert will have the right at any time to require that any such device or equipment be tested by Metropolitan, and Coachella and Desert will have the further right to be represented by a qualified observer during any such test. Should such test disclose a problem, Metropolitan will work with Coachella and Desert to resolve any resulting discrepancy and make adjustments in future deliveries of Exchange Water, if necessary. Such adjustments will cover the known or estimated period of duration of such discrepancy, but in no event will the period extend further back from the greater of either six months before the date of the test or January 1 of the year in which the test was conducted.

13. Payment of State Water Contract Charges

Coachella and Desert will pay all costs and charges due under their State Water Contracts incurred in connection with delivery of State Project Water to Metropolitan. When Metropolitan transferred the 100,000 acre-feet of Metropolitan's Annual Table A Amount to Coachella and Desert in 2003, Metropolitan also assigned the transportation rights to Coachella and Desert in Reaches 1 through 28J of the California Aqueduct. For the purposes of calculating the cost of these additional transportation rights in Reaches 19 through 28J it is assumed that the 100,000 acre-feet is conveyed through Basic East Branch capacity rather than East Branch Enlargement capacity, as described in Bulletin 132. The amounts transferred were 88,100 acre-feet to Coachella and 11,900 acre-feet to Desert, and capacity available to Coachella and Desert will be correspondingly adjusted pursuant to requirements of their State Water Contracts. Coachella and Desert are also responsible for paying DWR the Delta Water Charge, Water System Revenue

Bond Surcharge, and other charges attributable to the transferred amount. Any separate settlement agreed to by DWR and the Parties regarding East Branch Enlargement capacity and East Branch Allocation will apply to this Agreement.

14. Payment of Colorado River Aqueduct Costs

Metropolitan will pay all costs incurred in connection with the delivery of Exchange Water to Coachella and Desert.

15. Payment Directions

Payments required to be made to the Parties under this Agreement will be made to the order of Coachella, Desert, or Metropolitan, as the case may be, and paid by wire transfer as follows:

Coachella Valley Water District
Union Bank of California
445 S. Figueroa Street
Los Angeles, CA 90071
ABA No. 122000496
Contact Person: Donna Tredway
Credit to: Coachella Valley Water District
Account No. 2740013028

Desert Water Agency
Union Bank of California
ABA Routing #122000496
Account #322-0539198

The Metropolitan Water District of Southern California
Wire to: Bank of America
Credit to: Metropolitan Water District of Southern California
Account No. 1459350937
ABA No. 026009593

A Party may change these wire transfer instructions by giving a notice in accordance with Section 28.F. [General Provisions].

16. Delinquent Payments

Payment of any amount required under this Agreement will be delinquent if not received before the close of crediting activity on the date due. In the event that any Party is delinquent in the payment of any amount, that Party will pay interest on the amount due at an annual rate equal to that earned by the pooled money investment fund as provided in Government Code section 16480 et seq., calculated monthly on the amount of such delinquent payment from and after the date due until it is paid.

17. Water Rights

This Agreement will not be construed as: (a) a conveyance, abandonment, or waiver of any water right to the use of Table A Water which is held or owned by Coachella or Desert; (b) a conveyance, abandonment, or a waiver of any water right to the use of Colorado River water which is held or owned by Metropolitan; or (c) for purposes of Article 4 (Option for Continued Service) of Metropolitan's State Water Contract a reduction in the Maximum Annual Table A Amount of Metropolitan. Nor will it be construed as conferring any right whatsoever upon any person, firm, or other public or private entity not a party to this Agreement.

18. Records

Each Party will maintain and make available for inspection by the other Parties, during regular office hours, accurate records pertaining to the times and amounts of exchange deliveries and to the costs, disbursements, and receipts with respect to the construction, operation, and maintenance of structures for the delivery of State Project Water, Colorado River water, and Exchange Water.

19. Term of Agreement

A. This Agreement will terminate on December 31, 2035; unless extended pursuant to this Section 19 or terminated pursuant to Section 20 [Cancellation]; provided, however, if a claim arising under this Agreement has not been resolved, such provisions of this Agreement will continue in full force and effect as are necessary for the purpose of resolving such claims to satisfy the rights and obligations of the Parties. No later than December 31, 2034, the Parties will meet in good faith to begin negotiations to extend this Agreement for a period of an additional 50 years on the same terms and conditions.

B. Upon the termination of this Agreement, at the expiration of the term, or any earlier cancellation:

1. All structures and facilities which have been used solely to enable Coachella and Desert to take Exchange Water will be removed at the election of Metropolitan, and all property of every kind belonging to Metropolitan which has been involved in such delivery of water will be returned to its original condition, as near may be. Such work will be done, at the option of Metropolitan, either by and at the expense of Coachella and Desert but subject to approval by Metropolitan, or by Metropolitan at the expense of Coachella and Desert.

2. The 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP and transportation rights transferred to Coachella and Desert under the 2003 Exchange Agreement will be transferred back to Metropolitan.

3. Metropolitan will reassume responsibility for the resulting increase in SWP charges pursuant to the State Water Contracts for the return of the 100,000 acre-feet per year of Metropolitan's Annual Table A Amount. The Parties recognize that the State

Water Contract provides for the annual redetermination and correction of past charges to Coachella and Desert associated with the 100,000 acre-feet. In the year prior the transfer back to Metropolitan of the 100,000 acre-feet, Metropolitan, Coachella, and Desert will assemble a SWP charges technical workgroup to develop the processes and procedures necessary to identify annual redetermination, correction, and adjustment of prior year charges associated with the 100,000 acre-feet. Each year thereafter, the technical workgroup will meet after the annual charges are issued to review redetermination and adjustments to past charges for the Delta Capital and Minimum, Transportation Capital and Minimum, Water System Revenue Bond Surcharge, Off Aqueduct and Variable OMP&R charge, Conservation and Transportation Replacement charges, Tehachapi 2nd Afterbay, Devil Canyon and Castaic Contract charges, and any other SWP charges not mentioned. The workgroup will prepare an annual accounting of all the redeterminations and adjustments to SWP charges and the amount owing to or receivable from Metropolitan, Coachella, and Desert. No later than ninety days (90) after the completion of the annual accounting for redetermination of past charges and adjustments, but before June 30 each year, all amounts owing will be settled by check. The SWP charges technical workgroup will cease to meet when DWR is no longer making adjustments to past charges associated with the 100,000 acre-feet.

20. Cancellation

A. Conditions of Termination

This Agreement will terminate upon any of the following conditions:

1. At the expiration of ten years after service by a Party upon the other Parties of a written notice of election to terminate the Agreement, provided that if

Coachella breaches Section 11 [Noninterference with Other Water Deliveries] of the Agreement, Metropolitan may, in its sole discretion, give notice to Coachella and Desert to immediately terminate this Agreement.

2. Upon completion of delivery facilities capable of transporting Coachella's and Desert's State Project Water from the East Branch to Coachella's and Desert's service areas.

3. Upon written notice by Metropolitan and upon the fact that it no longer has sufficient rights to Colorado River water to provide Coachella and Desert with Exchange Water required under this Agreement.

4. Upon written notice by Metropolitan that any new limitations exist on the right or ability of Coachella or Desert to accept Colorado River water from Metropolitan for spreading or storage.

21. Liability

A. Metropolitan

Metropolitan will not be liable to either Coachella or Desert for any damages or liability arising from a failure of Metropolitan to deliver Exchange Water, which failure results from a cessation or reduction of flow of water in the Colorado River Aqueduct below the quantities required from time to time for delivery to Coachella and Desert under this Agreement. Coachella and Desert will defend and indemnify Metropolitan, its directors, officers, employees, agents, and representatives from and against any and all claims and liabilities which may result in any manner or to any extent from such failure, or from any action or inaction by Coachella or Desert or its directors, officers, employees, agents, or representatives done or made with respect to the receipt and distribution by Coachella or Desert of Metropolitan's Exchange Water or Colorado

River water, including but not limited to construction, reconstruction, operation, maintenance, removal, and repair of facilities necessary or used pursuant to this Agreement.

B. Coachella and Desert

Coachella and Desert will not be liable to Metropolitan for any damages or liability arising from a failure of DWR to deliver Coachella's or Desert's State Project Water to Metropolitan, which failure results from a cessation or reduction of flow of water in the State Water Project below the quantities required from time to time for delivery to Metropolitan under this Agreement. Metropolitan will defend and indemnify Coachella and Desert, their directors, officers, employees, agents, and representatives from and against any and all claims and liabilities which may result in any manner or to any extent from any such failure, or from any action or inaction by Metropolitan or its directors, officers, employees, agents, or representatives done or made with respect to the receipt and distribution by Metropolitan of Coachella's and Desert's State Project Water, including but not limited to construction, reconstruction, operation, maintenance, removal, and repair of facilities necessary or used pursuant to this Agreement.

22. Default

Each of the following constitutes an event of default by a Party under this Agreement:

A. A Party fails to pay a required amount by the date due. If a Party fails to pay a required amount by the date due, that delinquent payment will also bear interest as provided by Section 16 [Delinquent Payments].

B. A Party fails to perform or observe any term, covenant, or undertaking in this Agreement that it is required to perform or observe and such default continues for forty-five (45) days from a notice of default being sent in the manner provided in Section 26.F. [General Provisions].

23. Remedies

A. Each Party recognizes that the rights and obligations of the Parties under this Agreement are unique and of such a nature as to be inherently difficult or impossible to value monetarily. If a Party does not perform in accordance with this Agreement, another Party will likely suffer harm curable only by the imposition of an injunction requiring specific performance. Thus, the Parties agree that any breach of this Agreement by any Party will entitle the non-breaching party to injunctive relief, including but not limited to, a decree of specific performance, in addition to any other remedies at law or in equity that may be available in the circumstances. If Coachella or Desert fails to comply with its obligations to DWR under its State Water Contract, and DWR makes demand that Metropolitan assume payment of costs and charges provided for by Section 13 [Payment of State Water Contract Charges], Metropolitan may, for purposes of Section 19 [Term of Agreement], specify the later of the (i) effective date of the demand by DWR or (ii) expiration of forty-five (45) day period referenced by Section 22.B. [Default] as the effective date of termination.

B. The Parties do not intend that any right or remedy given to a Party on the breach of any provisions of this Agreement be exclusive; each such right or remedy is cumulative and in addition to any other remedy provided in this Agreement or otherwise available at law or in equity. If a non-breaching Party fails to exercise or delays in exercising any right or remedy, the non-breaching Party does not thereby waive the right or remedy. In addition, no single or partial exercise of any right, power, or privilege precludes any other or further exercise of a right, power, or privilege granted by this Agreement, or otherwise.

24. Resolution of Disputes

Within thirty calendar days of the Parties identifying the existence of a dispute, the General Managers of Metropolitan, Coachella, and Desert, as the case may be, will meet and attempt to resolve the dispute to their mutual satisfaction. Any such resolution will be in writing and be binding on the Parties.

25. Force Majeure

If the performance, in whole or in part, of the obligations of a Party under this Agreement is hindered, interrupted or prevented by wars, strikes, lockouts, fire, acts of God or by other acts of military authority, or by any cause beyond the control of the Party, whether similar to the causes herein specified or not, such obligations of the Party under this Agreement will be suspended to the extent and for the time the performance thereof is affected by any such act. Upon the cessation of any such hindrance, interruption or prevention, the Parties will become obligated to resume and continue performance of their respective obligations under this Agreement. Notwithstanding any act described in this section, the Parties will diligently undertake all reasonable effort to perform this Agreement.

26. General Provisions

A. In the event that any term or condition of this Agreement is determined to be invalid, illegal, or otherwise unenforceable, such determination will have no effect on the other terms and conditions, which will continue to be binding upon the Parties. Lack of enforcement of any term or condition of this Agreement will not be construed as a waiver of any rights conferred by such term or condition. Unless otherwise agreed to in writing, the failure of any Party to require the performance by another Party of any provision of this Agreement will in no way

affect the full right to require such performance at any time thereafter, nor will the waiver of any provision on one occasion be taken or held to be a waiver of the provision itself.

B. This Agreement will be binding on the Parties and their respective successors and assigns.

C. Any person signing this Agreement represents that he/she has full power and authority to do so and that his/her signature is legally sufficient to bind the Party on whose behalf he/she is signing.

D. This Agreement contains the entire understanding of the Parties with respect to its subject matter and supersedes any prior understanding between the Parties, except as set forth in this Agreement, whether written or oral. This Agreement can only be amended in writing signed by the Parties.

E. Time is of the essence in this Agreement.

F. Any communication, notice, or demand of any kind which any Party may be required or may desire to give to another Party will be in writing and delivered by personal service (including express or courier service) or by mail, addressed as follows:

Metropolitan

The Metropolitan Water District of Southern California
Attention: General Manager
P.O. Box 54153
Los Angeles, CA 90054-0153

For personal or overnight delivery:

The Metropolitan Water District of Southern California
Attention: General Manager
700 North Alameda Street
Los Angeles, CA 90012
Phone: 213-217-6211

Copies to:

The Metropolitan Water District of Southern California
Attention: General Counsel
P.O. Box 54153
Los Angeles, CA 90054-0153

The Metropolitan Water District of Southern California
Attention: Water Resource Management Group
P.O. Box 54153
Los Angeles, CA 90054-0153

Coachella

Coachella Valley Water District
Attention: General Manager/Chief Engineer
P.O. Box 1058
Coachella, CA 92236

For personal or overnight delivery:

Coachella Valley Water District
Attention: General Manager/Chief Engineer
Avenue 52 and Highway 111
Coachella, CA 92236
Phone: 760-398-2651

Copy to:

Steven B. Abbott, Esq.
Redwine and Sherrill, LLP
3890 11th Street, Ste. 207
Riverside, CA 92501-3577
Phone: 951-684-2520

Desert

Desert Water Agency
Attention: General Manager
1200 Gene Autry Trail
P.O. Box 1710
Palm Springs, CA 92263-1710
Phone: 760-323-4961

Copy to:

Michael T. Riddell, Esq.
Best, Best & Krieger LLP
3750 University Ave., Suite 400
P.O. Box 1028
Riverside, CA 92502
Phone: 909-686-1450

A Party may change its address for notice by written notice given to the other Parties in the manner provide in this Section. Any communication pursuant this Section will be deemed to have been duly given or served on the date personally served, if by personal service, or three days after being placed in the U.S. mail, if mailed.

G. This Agreement is entered into in the Counties of Riverside and Los Angeles, California, and will be governed by and construed in accordance with the laws of the State of California.

H. The Parties will perform any further acts and to execute and deliver any documents which may be reasonably necessary to carry out the provisions of this Agreement.

I. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which, when taken together, will constitute one and the same instrument.

J. This Agreement is made solely for the benefit of the Parties and their respective successor and assigns. No other person or entity may have or acquire any right by virtue of this Agreement.

In WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives on December 11, 2019.

Approved as to form:

By: _____
Marcia Scully
General Counsel

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: _____
Jeffrey Kightlinger
General Manager

Approved as to form:

By: _____
Steven B. Abbott
Special Counsel
Redwine and Sherrill, LLP

COACHELLA VALLEY WATER DISTRICT

By: _____
J. M. Barrett
General Manager

Approved as to form:

By: _____
Michael T. Riddell
Best Best & Krieger LLP

DESERT WATER AGENCY

By: _____
Mark S. Krause
General Manager

Exhibit A

Multi-Year Supplies

1. 9,500 acre-feet/year of Coachella's Rosedale Rio Bravo Water Storage District water.

Exhibit B

Single-Year Supplies

1. Yuba Accord water.

2. State Water Contractors' Dry Year Transfer Program water.

3. 6,500 acre-feet/year of Coachella's Rosedale Rio Bravo Water Storage District water.

Exhibit C

Water Management Cost Sharing

1. Annual Payment to Manage State Project Water

In years when the SWP Allocation (as defined below) is greater than 50%, Coachella and Desert will pay a portion of Metropolitan's average long-term costs to store water in Metropolitan's SWP groundwater storage programs. The amount Coachella and Desert will pay Metropolitan in such years, beginning in 2019, is $155/acre-foot (escalated annually by the prior year's Annual Percent Change series title "Consumer Price Index for All items in West Urban, all urban consumers, not seasonally adjusted") for 6.99% (for Coachella) and 2.64% (for Desert), of the volumes specified for Coachella and Desert in the following table:

SWP Allocation	Estimated Long-Term Average Deliveries to Storage (AF)	Desert Multi-Year Supply Share – 2.64% (AF)	Coachella Multi-Year Supply Share – 6.99% (AF)
0% - 50%	0	0	0
55%	30,000	792	2,097
60%	60,000	1,584	4,194
65%	90,000	2,376	6,291
70%	120,000	3,168	8,338
75%	150,000	3,960	10,485
80%	180,000	4,752	12,582
85%	210,000	5,544	14,679
90% - 100%	240,000	6,336	16,776

2. Table Explanation

A. SWP Allocation is the final South-of-Delta allocation.

B. Coachella's and Desert's Multi-Year Supply Shares are based on 1,911,500 acre-feet Table A for Metropolitan, 138,350 acre-feet Table A and 9,500 acre-feet of Rosedale Rio-Bravo Water Storage District water for Coachella, and 55,750 acre-feet of Table A

for Desert. If a Party's Table A or other Multi-Year Supply amounts in Exhibit A change in the future, the Parties will adjust the table accordingly.

3. Example Calculation

As an example, if the SWP Allocation in 2019 were 60%, Coachella would pay Metropolitan $650,070 (155 x 4,194) and Desert would pay Metropolitan $245,520 (155 x 1,584).

4. Payments under Exhibit C are due June 30 for operation in the prior calendar year.

SECOND AMENDMENT TO DELIVERY AND EXCHANGE AGREEMENT BETWEEN METROPOLITAN AND COACHELLA FOR 35,000 ACRE-FEET

THIS SECOND AMENDMENT TO DELIVERY AND EXCHANGE AGREEMENT BETWEEN METROPOLITAN AND COACHELLA FOR 35,000 ACRE-FEET is made this 11th day of December 2019, for identification purposes only, by and between the Metropolitan Water District of Southern California, a public agency of the State of California ("Metropolitan") and Coachella Valley Water District, a public agency of the State of California ("Coachella" or "CVWD"). Metropolitan and CVWD are sometimes referred to individually as a "Party" and collectively as "Parties."

RECITALS

A. On October 10, 2003, the Parties entered into the "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet."

B. On October 19, 2015, the Parties amended the "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet Agreement" by entering into the "First Amendment to Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet" ("First Amendment"). The "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet Agreement" as modified by the First Amendment is hereafter referred to as the "Agreement."

C. Each initially capitalized term herein shall have the meaning given it in the Agreement, unless specifically defined herein.

D. The Parties desire to streamline the delivery, billing, and payment provisions of the Agreement, as well as provide for an exchange of additional water, as set forth herein.

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING RECITALS AND THE MUTUAL COVENANTS AND AGREEMENTS CONTAINED HEREIN, THE PARTIES AGREE TO SUPPLEMENT, AMEND AND MODIFY THE TERMS AND CONDITIONS SET FORTH IN THE AGREEMENT, AS FOLLOWS:

1. Section 1.13 of the Agreement shall be deleted in its entirety.

2. Section 2.1 of the Agreement shall be deleted in its entirety and replaced by the following:

> "**Delivery of Entitlement Water.** Pursuant to and subject to Metropolitan's State Water Contract and this Agreement, Metropolitan shall deliver to CVWD during 2019 through 2026 a total of 280,000 acre-feet of water available from Metropolitan's State Water Project Annual Table A Amount ("Entitlement Water")."

3. Section 2.4 of the Agreement shall be deleted in its entirety and replaced by the following:

"**Transfer Water Order.** Metropolitan shall include in its order to DWR 35,000 acre-feet of Entitlement Water each year during 2019 through 2026."

4. Section 2.5 of the Agreement shall be deleted in its entirety and replaced by the following:

"**Exchange Water.** All deliveries of Entitlement Water during 2019 through 2026, of whatever amount is made available by DWR as a result of the order made pursuant to Section 2.4 (Transfer Water Order), shall be exchanged with Metropolitan for a like amount of Metropolitan's Colorado River water ("Exchange Water").

5. Section 2.6 of the Agreement shall be deleted in its entirety and replaced by the following:

"**Points of Delivery.** Metropolitan will, except as allowed pursuant to Section 2.14 of this Agreement, deliver the Exchange Water to the Whitewater Service Connections and has discretion to determine how much of the 280,000 acre-feet of Exchange Water to deliver to CVWD each year, with the exceptions that: (a) Metropolitan will deliver up to 35,000 acre-feet in a year at Imperial Dam to the extent needed to avoid a CVWD overrun; and (b) Metropolitan may only deliver more than 35,000 acre-feet in a year to the extent needed to offset reduced deliveries in prior years."

6. Section 2.7 of the Agreement shall be deleted in its entirety and replaced with the following:

"**Costs of Supply.** CVWD shall purchase the Entitlement Water from Metropolitan at a payment ("Costs of Supply Payment") of $289/acre-foot in 2019 for Exchange Water delivered at the Whitewater Service Connections and $180/acre-foot in 2019 for Exchange Water delivered at Imperial Dam, both of which will be inflated by 3% for deliveries each successive year through 2026. A table showing this adjustment (rounded to the nearest dollar) is attached and incorporated into this Agreement as Exhibit A ("Adjustment to Costs of Supply")."

7. The final sentence of Section 2.9 of the Agreement shall be deleted.

8. Section 2.10 of the Agreement shall be deleted in its entirety and replaced with the following:

"**Reimbursement.** On a yearly basis Metropolitan will reimburse CVWD for water that the U.S. Bureau of Reclamation has approved CVWD to divert but CVWD does not use

during 2019-2026, that is made available to Metropolitan at a rate of $50/acre-foot in 1999 Dollars (as defined by "N" Dollars in section 1.1(46) of the Quantification Settlement Agreement)." MWD shall make the reimbursement by June 1 following the year the water is made available to Metropolitan.

9. Section 2.11.1 of the Agreement shall be deleted in its entirety and replaced with the following:

"**Payment Schedule.** Metropolitan shall pay DWR the costs associated with the Entitlement Water including delivery. Through 2027, Metropolitan shall invoice CVWD by June 1 each year as if Metropolitan had delivered 35,000 acre-feet during the prior year, and CVWD will pay Metropolitan within 60 days of receiving the invoice, the Cost of Supply Payment referred to in Section 2.7 for 35,000 acre-feet."

10. Section 2.13 of the Agreement shall be deleted in its entirety.

11. Section 2.14 of the Agreement shall be deleted in its entirety and replaced with the following:

"**Advance Delivery of Exchange Water.** In lieu of delivering the Exchange Water to the Whitewater Service Connections, Metropolitan may opt to deliver to CVWD its full allocation of Exchange Water from advance delivery water as provided for in the 1984 Advance Delivery Agreement (including any future amendments). In such case, such advance delivery water shall be deemed delivered to CVWD. It shall be CVWD's obligation to access such water. Metropolitan may not satisfy a delivery obligation to Imperial Dam by advance delivery water."

12. The final sentence of Section 2.15 of the Agreement shall be deleted.

13. New Section 2.18 is added to the Agreement as follows:

"Exchange of Additional Water. During 2020-2026, CVWD shall limit its annual call under the 1989 Approval Agreement, as amended in 2003, to 15,000 acre-feet. In return, Metropolitan shall deliver a total of 105,000 acre-feet to CVWD at the Whitewater Service Connections before the end of 2026. Metropolitan shall have discretion to determine how much of the 105,000 acre-feet Metropolitan delivers to CVWD each year. Unless the Parties agree otherwise, Metropolitan may not deliver the water during the months of January through June. CVWD shall pay Metropolitan for the water Metropolitan delivers to CVWD at the same price per acre-foot that CVWD pays Metropolitan for Entitlement Water under Section 2.7 of this Agreement. Metropolitan shall invoice CVWD, and CVWD shall pay Metropolitan, during the same fiscal year in which Metropolitan delivers the water to CVWD. In the event that any new limitations

become effective on the right or ability of Coachella to accept Colorado River from Metropolitan for spreading or storage, Metropolitan may upon written notice cancel this section of the Agreement."

14. New Section 3.1.1 is added to the Agreement as follows:

"**Post 2026 Period.** By the end of 2026, the Parties will meet to renegotiate delivery and payment terms for a period beginning in 2027. If the Parties are unable to agree on new terms, then the terms of the Agreement that existed before this Second Amendment was made shall apply."

15. Exhibit A of the Agreement ("Adjustment to Cost of Supply") shall be deleted in its entirety and replaced with the Exhibit A attached to this Second Amendment ("Adjustment to Costs of Supply").

16. Except as expressly provided above in Sections 1 through 15 above, all provisions of the Agreement shall remain in full force and effect. Notwithstanding the immediately preceding sentence, the Agreement shall be interpreted in a manner consistent with the intent of this Amendment.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed by their duly authorized representatives on the date first above written.

METROPOLITAN:

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a public agency of the State of California

By: _____

Jeffrey Kightlinger
General Manager

APPROVED AS TO FORM

By: _____

Marcia Scully
General Counsel

CVWD:

COACHELLA VALLEY WATER DISTRICT, a public agency of the State of California

By: _____

J. M. Barrett
General Manager

ATTEST:

By: _____

Sylvia M. Bermudez
Clerk of the Board

EXHIBIT A

Adjustment to Costs of Supply

	Delivery at Imperial Dam (Cost of Supply, i.e., SWP)	Delivery at Whitewater Service Connection (Cost of SWP, CRA Power & O&M)
2019	$ 180.00	$ 289.00
2020	$ 186.00	$ 298.00
2021	$ 191.00	$ 307.00
2022	$ 197.00	$ 316.00
2023	$ 203.00	$ 326.00
2024	$ 209.00	$ 336.00
2025	$ 215.00	$ 346.00
2026	$ 222.00	$ 356.00

Appendix E

AWWA Water Loss Audits

Coachella Valley Water District

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.
Copyright © 2014, All Rights Reserved.

? Click to access definition
\+ Click to add a comment

Water Audit Report for: Coachella Valley Water District Cove (CA3310001 & CA1310011)
Reporting Year: 2021 7/2020 - 6/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailableplease estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	9	32,816.420	MG/Yr	3	8.890	MG/Yr
Water imported:	n/a	0.000	MG/Yr			MG/Yr
Water exported:	n/a	0.000	MG/Yr			MG/Yr
WATER SUPPLIED:		**32,807.530**	MG/Yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	29,178.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	263.550	MG/Yr			
Unbilled unmetered:	5	82.040	MG/Yr		82.040	MG/Yr
AUTHORIZED CONSUMPTION:		**29,523.590**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

3,283.940 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		82.019	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	1,641.167	MG/Yr	5.28%		MG/Yr
Systematic data handling errors:	5	72.945	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **1,796.131** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **1,487.809** MG/Yr

WATER LOSSES: **3,283.940** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **3,629.530** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	2,008.9	miles
Number of active AND inactive service connections:	9	109,691	
Service connection density:		55	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	84.0	psi

COST DATA

Total annual cost of operating water system:	10	$101,791,149	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$1.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$774.66	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 86 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Coachella Valley Water District Cove (CA3310001)
Reporting Year: 2022 7/2021 - 6/2022

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	9	32,391.380	MG/Yr	3	3.350	MG/Yr
Water imported:	n/a	0.000	MG/Yr			MG/Yr
Water exported:	n/a	0.000	MG/Yr			MG/Yr
WATER SUPPLIED:		**32,388.030**	MG/Yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	29,323.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	250.010	MG/Yr			
Unbilled unmetered:	5	80.970	MG/Yr		80.970	MG/Yr
AUTHORIZED CONSUMPTION:		**29,653.980**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

2,734.050 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		80.970	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	1,075.772	MG/Yr	3.51%		MG/Yr
Systematic data handling errors:	5	73.308	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **1,230.050** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **1,504.000** MG/Yr

WATER LOSSES: **2,734.050** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **3,065.030** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	2,012.8	miles
Number of active AND inactive service connections:	9	110,966	
Service connection density:		55	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	84.0	psi

COST DATA

Total annual cost of operating water system:	10	$101,303,247	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$1.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$889.24	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 86 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.
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Water Audit Report for: Coachella Valley Water District (Cove)
Audit Year: 2023 | Jul 01 2022 - Jun 30 2023 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

		n	g				n	g					
VOS	Volume from Own Sources:	n	g	7	29,574.630	MG/Yr	n	g	8	volume	5.570	MG/Yr	over-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	MG/Yr								WIEA
WE	Water Exported:	n	g	n/a	0.000	MG/Yr								WEEA

WATER SUPPLIED: 29,569.060 MG/Yr

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	n	g	8	26,797.910	MG/Yr		
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr		
UMAC	Unbilled Metered:	n	g	10	56.880	MG/Yr	choose entry option:	
UUAC	Unbilled Unmetered:	n	g	10	66.995	MG/Yr	custom 66.995	MG/Yr

AUTHORIZED CONSUMPTION: 26,921.785 MG/Yr

WATER LOSSES

2,647.275 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	66.995	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	7	531.290	MG/Yr	1.94%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	66.995	MG/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 665.280 MG/Yr

Real Losses

Real Losses: 1,981.995 MG/Yr

WATER LOSSES: 2,647.275 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,771.150 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	2,012.8	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	112,084		(active *and* inactive)
	Service connection density:				56	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp — n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP — Average Operating Pressure: n g 10 84.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.66	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$932.59	$/Million gallons	$136,215,888	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	44.2	gal/conn/day
Unit Real Losses[A]:	44.0	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.
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Water Audit Report for: Coachella Valley Water District (Cove)
Audit Year: 2024 | Jul 01 2023 - Jun 30 2024 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g				
VOS	Volume from Own Sources:	n	g	8	30,024.560	MG/Yr	n	g	8	volume 2.100	MG/Yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a		MG/Yr						WIEA
WE	Water Exported:	n	g	n/a		MG/Yr						WEEA
	WATER SUPPLIED:				30,026.660	MG/Yr						

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	9	26,271.070	MG/Yr	
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr	
UMAC	Unbilled Metered:	n	g	10	264.200	MG/Yr	
UUAC	Unbilled Unmetered:	n	g	3	65.678	MG/Yr	0.25% default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 26,600.948 MG/Yr

WATER LOSSES

3,425.712 MG/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	65.678	MG/Yr	0.25% default	
CMI	Customer Metering Inaccuracies:	n	g	9	566.425	MG/Yr	2.09% percent	under-registration
UC	Unauthorized Consumption:	n	g	3	65.678	MG/Yr	0.25% default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 697.781 MG/Yr

Real Losses

Real Losses: 2,727.932 MG/Yr

WATER LOSSES: 3,425.712 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,755.590 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	2,012.8	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	112,724		(active *and* inactive)
	Service connection density:				56	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 10 84.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.72	$/100 cubic feet (ccf)	Total Annual Operating Cost
VPC	Variable Production Cost:	n	g	9	$945.36	$/Million gallons	$122,730,434 $/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Unauthorized Consumption (UC)
3: Systematic Data Handling Errors (SDHE)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	44.2	gal/conn/day
Unit Real Losses[A]:	44.0	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: Coachella Valley Water District (Cove)

Audit Year: 2025 | Jul 01 2024 - Jun 30 2025 | Fiscal

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g				
VOS	Volume from Own Sources:	n	g	8	32,611.140	MG/Yr	n	g	8	volume 0.540	MG/Yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a		MG/Yr						WIEA
WE	Water Exported:	n	g	n/a		MG/Yr						WEEA

WATER SUPPLIED: 32,611.680 MG/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g				
BMAC	Billed Metered:	n	g	8	29,609.870	MG/Yr	
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr	
UMAC	Unbilled Metered:	n	g	10	216.030	MG/Yr	
UUAC	Unbilled Unmetered:	n	g	3	74.025	MG/Yr	0.25% default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 29,899.925 MG/Yr

WATER LOSSES

2,711.755 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

		n	g					
SDHE	Systematic Data Handling Errors:	n	g	3	74.025	MG/Yr	0.25% default	
CMI	Customer Metering Inaccuracies:	n	g	9	1,596.245	MG/Yr	5.08% percent	under-registration
UC	Unauthorized Consumption:	n	g	3	74.025	MG/Yr	0.25% default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 1,744.294 MG/Yr

Real Losses

Real Losses: 967.461 MG/Yr

WATER LOSSES: 2,711.755 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,001.810 MG/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	2,007.6	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	113,163		(active *and* inactive)
	Service connection density:				56	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

		n	g			
AOP	Average Operating Pressure:	n	g	10	80.4	psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	7	$1.90	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$880.69	$/Million gallons	$138,955,683	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)

2: Billed Metered (BMAC)

3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	44.2	gal/conn/day
Unit Real Losses[^]:	44.0	gal/conn/day
Unit Real Losses[^]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
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? Click to access definition
+ Click to add a comment

Water Audit Report for: Coachella Valley Water District ID08 (CA3310048)
Reporting Year: 2021 | 7/2020 - 6/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

						Pcnt:	Value:	
Volume from own sources:	9	1,094.000	MG/Yr	3			0.090	MG/Yr
Water imported:	n/a	0.000	MG/Yr					MG/Yr
Water exported:	n/a	0.000	MG/Yr					MG/Yr
WATER SUPPLIED:		**1,093.910**	MG/Yr					

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	894.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	11.710	MG/Yr			
Unbilled unmetered:	5	13.670	MG/Yr		13.670	MG/Yr
AUTHORIZED CONSUMPTION:		**919.380**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

174.530 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		2.735	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	24.750	MG/Yr	2.66%		MG/Yr
Systematic data handling errors:	5	2.235	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **29.720** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **144.810** MG/Yr

WATER LOSSES: **174.530** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **199.910** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	116.4	miles
Number of active AND inactive service connections:	9	1,722	
Service connection density:		15	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	88.0	psi

COST DATA

Total annual cost of operating water system:	10	$2,959,116	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$1.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$675.47	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 86 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Coachella Valley Water District ID08 (CA3310048)
Reporting Year: 2022 7/2021 - 6/2022

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	9	975.570	MG/Yr	3		0.030	MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr
WATER SUPPLIED:		**975.540**	MG/Yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	889.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	12.490	MG/Yr			
Unbilled unmetered:	5	2.430	MG/Yr		2.430	MG/Yr
AUTHORIZED CONSUMPTION:		**903.920**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) **71.620** MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		2.439	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	13.171	MG/Yr	1.44%		MG/Yr
Systematic data handling errors:	5	2.223	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **17.832** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **53.788** MG/Yr

WATER LOSSES: **71.620** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **86.540** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	123.9	miles
Number of active AND inactive service connections:	9	1,736	
Service connection density:		14	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 87.0 psi

COST DATA

Total annual cost of operating water system:	10	$3,105,818	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$1.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$905.41	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 86 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software: Worksheet

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Water Audit Report for: Coachella Valley Water District (ID08)
Audit Year: 2023 | Jul 01 2022 - Jun 30 2023 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments
choose entry option:

VOS	Volume from Own Sources:	n	g	7	905.380	MG/Yr	n g 8	volume	0.190	MG/Yr	over-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	MG/Yr						WIEA
WE	Water Exported:	n	g	n/a	0.000	MG/Yr						WEEA
	WATER SUPPLIED:				905.190	MG/Yr						

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	821.210	MG/Yr				
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr				
UMAC	Unbilled Metered:	n	g	10	1.610	MG/Yr				
UUAC	Unbilled Unmetered:	n	g	10	2.053	MG/Yr	custom	2.053	MG/Yr	
	AUTHORIZED CONSUMPTION:				824.873	MG/Yr				

WATER LOSSES

80.317 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	2.053	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	-0.576	MG/Yr	0.07%	percent	over-registration
UC	Unauthorized Consumption:	n	g	3	2.053	MG/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Aggregate over-registration of customer metering is unlikely

Apparent Losses: 3.530 MG/Yr

Real Losses

Real Losses: 76.787 MG/Yr

WATER LOSSES: 80.317 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 83.980 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	123.9	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	1,746		(active *and* inactive)
	Service connection density:				14	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 10 87.4 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.66	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$933.96	$/Million gallons	$4,174,288	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. ***** go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	135.4	gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:	699	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.
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Water Audit Report for: Coachella Valley Water District (ID08)
Audit Year: 2024 | Jul 01 2023 - Jun 30 2024 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g				
VOS	Volume from Own Sources:	n	g	8	904.820	MG/Yr	n	g	8	volume 0.170	MG/Yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a		MG/Yr						WIEA
WE	Water Exported:	n	g	n/a		MG/Yr						WEEA
	WATER SUPPLIED:				904.990	MG/Yr						

AUTHORIZED CONSUMPTION

choose entry option:

		n	g				
BMAC	Billed Metered:	n	g	9	821.420	MG/Yr	
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr	
UMAC	Unbilled Metered:	n	g	10	10.340	MG/Yr	
UUAC	Unbilled Unmetered:	n	g	3	2.054	MG/Yr	0.25% default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 833.814 MG/Yr

WATER LOSSES

71.176 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

		n	g					
SDHE	Systematic Data Handling Errors:	n	g	3	2.054	MG/Yr	0.25% default	
CMI	Customer Metering Inaccuracies:	n	g	9	6.708	MG/Yr	0.80% percent	under-registration
UC	Unauthorized Consumption:	n	g	3	2.054	MG/Yr	0.25% default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 10.815 MG/Yr

Real Losses

Real Losses: 60.362 MG/Yr

WATER LOSSES: 71.176 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 83.570 MG/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	123.9	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	1,760		(active *and* inactive)
	Service connection density:				14	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 10 87.0 psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	7	$1.72	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$980.83	$/Million gallons	$3,837,391	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Unauthorized Consumption (UC)
3: Systematic Data Handling Errors (SDHE)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	135.4	gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:	1,555	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: Coachella Valley Water District (ID08)

Audit Year: 2025 | Jul 01 2024 - Jun 30 2025 | Fiscal

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	8	1,015.870	MG/Yr	n g 8	0.01%	percent	under-registration	VOSEA
WI	Water Imported:	n	g	n/a		MG/Yr					WIEA
WE	Water Exported:	n	g	n/a		MG/Yr					WEEA
	WATER SUPPLIED:				1,015.972	MG/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	911.190	MG/Yr			
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr			
UMAC	Unbilled Metered:	n	g	10	11.260	MG/Yr			
UUAC	Unbilled Unmetered:	n	g	3	2.278	MG/Yr	0.25%	default	

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 924.728 MG/Yr

WATER LOSSES

91.244 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	2.278	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	9	10.071	MG/Yr	1.08%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	2.278	MG/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 14.627 MG/Yr

Real Losses

Real Losses: 76.616 MG/Yr

WATER LOSSES: 91.244 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 104.782 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	104.8	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	1,776		(active *and* inactive)
	Service connection density:				17	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 10 84.5 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.90	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$851.47	$/Million gallons	$4,276,102	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)

2: Billed Metered (BMAC)

3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	135.4	gal/conn/day
Unit Real Losses[^]:		gal/conn/day
Unit Real Losses[¤]:	1,555	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Coachella Water Authority

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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? Click to access definition
+ Click to add a comment

Water Audit Report for: Coachella Water Authority (CA3310007)
Reporting Year: 2020 | 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

						Pcnt:	Value:	
Volume from own sources:	+ ?	5	2,351.860	MG/Yr	+ ? 4			MG/Yr
Water imported:	+ ?	n/a	0.000	MG/Yr	+ ?			MG/Yr
Water exported:	+ ?	n/a	0.000	MG/Yr	+ ?			MG/Yr
WATER SUPPLIED:			**2,351.860**	MG/Yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

					Pcnt:	Value:	
Billed metered:	+ ?	5	2,229.944	MG/Yr			
Billed unmetered:	+ ?	n/a	0.000	MG/Yr			
Unbilled metered:	+ ?	n/a	0.000	MG/Yr			
Unbilled unmetered:	+ ?	5	5.880	MG/Yr		5.880	MG/Yr
AUTHORIZED CONSUMPTION:	?		**2,235.824**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) **116.036** MG/Yr

Apparent Losses

					Pcnt:	Value:	
Unauthorized consumption:	+ ?		5.880	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+ ?	6	0.000	MG/Yr			MG/Yr
Systematic data handling errors:	+ ?	6	5.575	MG/Yr	0.25%		MG/Yr
Apparent Losses:	?		**11.455**	MG/Yr			

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? **104.581** MG/Yr

WATER LOSSES: **116.036** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: ? **121.916** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	6	119.6	miles
Number of active AND inactive service connections:	+ ?	8	8,235	
Service connection density:	?		69	conn./mile main
Are customer meters typically located at the curbstop or property line?			Yes	
Average length of customer service line:	+ ?			

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	+ ?	5	55.0	psi

COST DATA

Total annual cost of operating water system:	+ ?	10	$8,369,012	$/Year	
Customer retail unit cost (applied to Apparent Losses):	+ ?	5	$1.65	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	+ ?	5	$409.46	$/Million gallons	☑ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 57 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer retail unit cost (applied to Apparent Losses)

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access
+ Click to add a comment

Water Audit Report for: City of Coachella / Coachella Water Authority (CA3310007)
Reporting Year: 2021 | 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> | Pcnt: | Value:

Volume from own sources:	5	2,463.590	MG/Yr		4			MG/Yr
Water imported:	n/a	0.000	MG/Yr					MG/Yr
Water exported:	n/a	0.000	MG/Yr					MG/Yr
WATER SUPPLIED:		**2,463.590**	MG/Yr					

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option

Pcnt: | Value:

Billed metered:	7	2,334.340	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	5	6.159	MG/Yr		6.159	MG/Yr
AUTHORIZED CONSUMPTION:		**2,340.499**	MG/Yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

123.091 MG/Yr

Apparent Losses

Pcnt: | Value:

Unauthorized consumption:	6.159	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	11.730	MG/Yr	0.50%	MG/Yr
Systematic data handling errors:	5	5.836	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **23.725** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **99.366** MG/Yr

WATER LOSSES: **123.091** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **129.250** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	122.0	miles
Number of active AND inactive service connections:	8	9,081	
Service connection density:		74	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	55.0	psi

COST DATA

Total annual cost of operating water system:	10	$6,899,814	$/Year
Customer retail unit cost (applied to Apparent Losses):	7	$1.47	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	5	$448.57	$/Million gallons ☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 58 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Variable production cost (applied to Real Losses)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.
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Water Audit Report for: Coachella Water Authority
Audit Year: 2023 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments
choose entry option:

VOS	Volume from Own Sources:	n	g	4	7,624.810	Acre-ft/Yr	n g 9	volume	53.390	acre-ft/yr	over-registration VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	n/a		Acre-ft/Yr					WEEA

WATER SUPPLIED: 7,571.420 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	5	6,987.880	Acre-ft/Yr			
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr			
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n	g	5	2.150	Acre-ft/Yr	custom	2.150	acre-ft/yr

AUTHORIZED CONSUMPTION: 6,990.030 Acre-ft/Yr

WATER LOSSES

581.390 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	17.470	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	3	35.115	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	17.470	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 70.054 Acre-ft/Yr

Real Losses

Real Losses: 511.336 Acre-ft/Yr

WATER LOSSES: 581.390 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 583.540 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	122.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	9,228		(active *and* inactive)
	Service connection density:				76	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 10 55.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.47	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	4	$435.03	$/acre-ft	$4,369,468	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

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Water Audit Report for: Coachella Water Authority
Audit Year: 2024 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

VOS	Volume from Own Sources:	n	g	4	7,183.360	Acre-ft/Yr	n g 9	volume	25.809	acre-ft/yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr					WEEA

WATER SUPPLIED: 7,209.169 Acre-ft/Yr

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	n	g	5	7,106.402	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr	choose entry option:	
UUAC	Unbilled Unmetered:	n	g	3	17.766	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 7,124.168 Acre-ft/Yr

WATER LOSSES

85.001 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	17.766	Acre-ft/Yr	choose entry option: 0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	3	35.711	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	17.766	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 71.243 Acre-ft/Yr

Real Losses

Real Losses: 13.758 Acre-ft/Yr

WATER LOSSES: 85.001 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 102.767 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	6	122.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	9,055		(active *and* inactive)
	Service connection density:				74	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 10 55.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$1.55	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	4	$174.00	$/acre-ft	$11,141,469	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier II (26-50). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.1

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Water Audit Report for: Coachella Water Authority
Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

VOS	Volume from Own Sources:	n	g	4	7,854.150	Acre-ft/Yr	n g 9	percent	VOSEA
WI	Water Imported:	n	g	n/a		Acre-ft/Yr			WIEA
WE	Water Exported:	n	g	n/a		Acre-ft/Yr			WEEA

WATER SUPPLIED: 7,854.150 Acre-ft/Yr

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	n	g	5	7,414.420	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr	choose entry option:	
UUAC	Unbilled Unmetered:	n	g	3	18.536	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 7,432.956 Acre-ft/Yr

WATER LOSSES

421.194 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	18.536	Acre-ft/Yr	choose entry option: 0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	3	37.258	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	18.536	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 74.330 Acre-ft/Yr

Real Losses

Real Losses: 346.863 Acre-ft/Yr

WATER LOSSES: 421.194 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 439.730 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	6	122.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	9,055		(active *and* inactive)
	Service connection density:				74	conn./mile main	
	Are customer meters typically located at the curbstop/property line?				Yes		
Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	10	55.0	psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	1	$1.55	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	4	$448.05	$/acre-ft	$9,029,023	$/yr (optional input)

Click here to calculate carbon emissions ---> carbon

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier II (26-50). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Customer Retail Unit Charge (CRUC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[^]:		gal/conn/day
Unit Real Losses[^]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Desert Water Agency

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Reporting Worksheet

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Water Audit Report for: Desert Water Agency (3310005)
Reporting Year: 2020 | 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered in ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	5	32,824.826	acre-ft/yr	3	1.19%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**32,439.932**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	7	29,932.547	acre-ft/yr		
Billed unmetered:	n/a		acre-ft/yr		
Unbilled metered:	3	331.814	acre-ft/yr		
Unbilled unmetered:		405.499	acre-ft/yr	1.25%	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: **30,669.860** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

1,770.072 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		81.100	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	7	244.067	acre-ft/yr	0.80%	acre-ft/yr
Systematic data handling errors:		74.831	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **399.999** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Use Customer Retail Unit Cost to

Real Losses = Water Losses - Apparent Losses: **1,370.073** acre-ft/yr

WATER LOSSES: **1,770.072** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **2,507.385** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	425.3	miles
Number of active AND inactive service connections:	7	26,349	
Service connection density:		62	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	79.8	psi

COST DATA

Total annual cost of operating water system:	10	$28,253,795	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$2.09	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	7	$297.42	$/acre-ft

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 62 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unbilled metered
3: Billed metered

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Water Audit Report for: Desert Water Agency (CA3310005)
Reporting Year: 2021 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered in ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	5	33,256.897	acre-ft/yr	3	-0.09%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	3	11.345	acre-ft/yr	2	0.00%		acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 33,274.776 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	30,675.334	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	3	249.824	acre-ft/yr			
Unbilled unmetered:		415.935	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 31,341.093 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

1,933.683 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		83.187	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	7	249.396	acre-ft/yr	0.80%		acre-ft/yr
Systematic data handling errors:		76.688	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 409.272 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Use Customer Retail Unit Cost to

Real Losses = Water Losses - Apparent Losses: 1,524.411 acre-ft/yr

WATER LOSSES: 1,933.683 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,599.442 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	424.6	miles
Number of active AND inactive service connections:	7	26,020	
Service connection density:		61	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	79.8	psi

COST DATA

Total annual cost of operating water system:	10	$30,816,176	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$2.09	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	7	$335.73	$/acre-ft

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 62 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unbilled metered
3: Billed metered

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FWAS v6.0

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Water Audit Report for: Desert Water Agency
Audit Year: 2022 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	7	32,158.545	Acre-ft/Yr	n g 8	0.19%	percent	under-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	6	13.760	Acre-ft/Yr	n g 5	0.00%	percent		WEEA

WATER SUPPLIED: 32,206.003 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	29,412.597	Acre-ft/Yr			
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr			
UMAC	Unbilled Metered:	n	g	10	243.320	Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n	g	3	73.531	Acre-ft/Yr	0.25%	default	

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 29,729.448 Acre-ft/Yr

WATER LOSSES

2,476.554 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	73.531	Acre-ft/Yr	0.25%	default			
CMI	Customer Metering Inaccuracies:	n	g	6	239.161	Acre-ft/Yr	0.80%	percent		under-registration	
UC	Unauthorized Consumption:	n	g	6	88.251	Acre-ft/Yr		custom	88.251	acre-ft/yr	

Apparent Losses: 400.943 Acre-ft/Yr

Real Losses

Real Losses: 2,075.611 Acre-ft/Yr

WATER LOSSES: 2,476.554 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,793.406 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	422.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	25,887		(active *and* inactive)
	Service connection density:				61	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 6 79.8 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$2.29	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$386.01	$/acre-ft	$31,358,809	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Systematic Data Handling Errors (SDHE)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	14.6	gal/conn/day
Unit Real Losses[A]:	69.4	gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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Water Audit Report for: Desert Water Agency
Audit Year: 2023 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	7	29,774.712	Acre-ft/Yr	n g 8	0.95%	percent	over-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	6	16.780	Acre-ft/Yr	n g 5	0.00%	percent		WEEA

WATER SUPPLIED: 29,478.678 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	27,392.058	Acre-ft/Yr			
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr			
UMAC	Unbilled Metered:	n	g	10	328.079	Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n	g	3	68.480	Acre-ft/Yr	0.25%	default	

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 27,788.617 Acre-ft/Yr

WATER LOSSES

1,690.060 Acre-ft/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	68.480	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	223.549	Acre-ft/Yr	0.80%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	68.480	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 360.510 Acre-ft/Yr

Real Losses

Real Losses: 1,329.551 Acre-ft/Yr

WATER LOSSES: 1,690.060 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,086.620 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	429.9	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	25,847		(active *and* inactive)
	Service connection density:				60	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 6 79.8 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$2.29	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$386.30	$/acre-ft	$32,507,156	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	14.6	gal/conn/day
Unit Real Losses[A]:	69.4	gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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Water Audit Report for: Desert Water Agency
Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

VOS	Volume from Own Sources:	n	g	7	32,445.678	Acre-ft/Yr	n g 8	1.00%	percent	under-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	7	14.020	Acre-ft/Yr	n g 5	0.66%	percent	over-registration	WEEA

WATER SUPPLIED: 32,758.084 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	29,800.562	Acre-ft/Yr			
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr			
UMAC	Unbilled Metered:	n	g	10	365.779	Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n	g	3	74.501	Acre-ft/Yr	0.25%	default	

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 30,240.842 Acre-ft/Yr

WATER LOSSES

2,517.242 Acre-ft/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	74.501	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	243.277	Acre-ft/Yr	0.80%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	74.501	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 392.280 Acre-ft/Yr

Real Losses

Real Losses: 2,124.962 Acre-ft/Yr

WATER LOSSES: 2,517.242 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,957.522 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	432.7	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	25,847		(active *and* inactive)
	Service connection density:				60	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp — n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP — Average Operating Pressure: n g 6 79.8 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$2.46	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$414.55	$/acre-ft	$36,348,765	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	14.6	gal/conn/day
Unit Real Losses[A]:	69.4	gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

City of Indio

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Water Audit Report for: Indio Water Authority (CA3310020)
Reporting Year: 2021 | 7/2020 - 6/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	8	20,894.540	acre-ft/yr	3	-0.53%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**21,005.871**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	9	19,337.090	acre-ft/yr			
Billed unmetered:	8	3.522	acre-ft/yr			
Unbilled metered:	10	295.060	acre-ft/yr			
Unbilled unmetered:	5	52.515	acre-ft/yr		52.515	acre-ft/yr
AUTHORIZED CONSUMPTION:		**19,688.187**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

1,317.684 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		52.515	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	400.656	acre-ft/yr	2.00%	acre-ft/yr
Systematic data handling errors:	5	48.343	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **501.514** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **816.171** acre-ft/yr

WATER LOSSES: **1,317.684** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **1,665.259** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	346.2	miles
Number of active AND inactive service connections:	10	23,827	
Service connection density:		69	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	8	68.7	psi

COST DATA

Total annual cost of operating water system:	10	$21,423,607	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$2.41	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$151.98	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 79 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

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Water Audit Report for: Indio Water Autority (CA3310020)
Reporting Year: 2022 | 7/2021 - 6/2022

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

WATER SUPPLIED

					Master Meter and Supply Error Adjustments		
					Pcnt:	Value:	
Volume from own sources:	8	20,597.000	acre-ft/yr	3	-0.30%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**20,658.977**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	19,346.920	acre-ft/yr			
Billed unmetered:	8	2.830	acre-ft/yr			
Unbilled metered:	10	391.120	acre-ft/yr			
Unbilled unmetered:	5	51.708	acre-ft/yr		51.708	acre-ft/yr
AUTHORIZED CONSUMPTION:		**19,792.578**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

866.399 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		51.647	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	402.817	acre-ft/yr	2.00%	acre-ft/yr
Systematic data handling errors:		48.367	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **502.832** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **363.567** acre-ft/yr

WATER LOSSES: **866.399** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **1,309.227** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	346.6	miles
Number of active AND inactive service connections:	10	24,846	
Service connection density:		72	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	8	66.1	psi

COST DATA

Total annual cost of operating water system:	10	$24,453,644	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$1.47	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$193.90	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 79 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
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Water Audit Report for: Indio Water Authority
Audit Year: 2023 | Jul 01 2022 - Jun 30 2023 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g				
VOS	Volume from Own Sources:	n	g	8	19,967.762	Acre-ft/Yr	n	g	8	volume 22.370	acre-ft/yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr						WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr						WEEA
	WATER SUPPLIED:				19,990.132	Acre-ft/Yr						

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	8	18,658.827	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	373.444	Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	46.647	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 19,078.918 Acre-ft/Yr

WATER LOSSES

911.214 Acre-ft/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	46.647	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	2	0.000	Acre-ft/Yr		percent	under-registration
UC	Unauthorized Consumption:	n	g	3	46.647	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 93.294 Acre-ft/Yr

Real Losses

Real Losses: 817.920 Acre-ft/Yr

WATER LOSSES: 911.214 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,331.305 Acre-ft/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	367.2	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	25,197		(active *and* inactive)
	Service connection density:				69	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

		n	g			
AOP	Average Operating Pressure:	n	g	7	66.0	psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	10	$1.46	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$219.89	$/acre-ft	$23,757,218	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

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Water Audit Report for: Indio Water Authority
Audit Year: 2024 | Jul 01 2023 - Jun 30 2024 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

VOS	Volume from Own Sources:	n	g	8	19,345.833	Acre-ft/Yr	n	g	8	volume	123.292 acre-ft/yr	under-registration VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr						WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr						WEEA
	WATER SUPPLIED:				19,469.125	Acre-ft/Yr						

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	18,163.576	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	293.272	Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	45.409	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 18,502.257 Acre-ft/Yr

WATER LOSSES

966.868 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	45.409	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	2	209.058	Acre-ft/Yr	1.12%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	45.409	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 299.876 Acre-ft/Yr

Real Losses

Real Losses: 666.992 Acre-ft/Yr

WATER LOSSES: 966.868 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,305.549 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	367.8	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	25,568		(active *and* inactive)
	Service connection density:				70	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	7	66.0	psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	10	$1.46	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$246.37	$/acre-ft	$23,481,660	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses^:		gal/conn/day
Unit Real Losses^:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: Indio Water Authority

Audit Year: 2025 | Jul 01 2024 - Jun 30 2025 | Fiscal

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	8	21,125.936	Acre-ft/Yr	n	g	8	volume	123.292	acre-ft/yr	under-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr								WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr								WEEA
	WATER SUPPLIED:				21,249.228	Acre-ft/Yr								

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	19,950.438	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	256.024	Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	49.876	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 20,256.338 Acre-ft/Yr

WATER LOSSES

992.890 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	49.876	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	2	228.876	Acre-ft/Yr	1.12%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	49.876	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 328.628 Acre-ft/Yr

Real Losses

Real Losses: 664.262 Acre-ft/Yr

WATER LOSSES: 992.890 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,298.790 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	352.3	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	26,286		(active *and* inactive)
	Service connection density:				75	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 7 68.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	10	$1.48	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$201.67	$/acre-ft	$28,365,310	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. ***** go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Mission Springs Water District

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Mission Springs Water District (3310008)
Reporting Year: 2016 (1/2016 - 12/2016)

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED				Pcnt:	Value:	
Volume from own sources:	7	7,222.900	acre-ft/yr	3		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr			acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr			acre-ft/yr
WATER SUPPLIED:		**7,222.900**	acre-ft/yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION				Pcnt:	Value:	
Billed metered:	5	6,503.000	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	8	0.974	acre-ft/yr			
Unbilled unmetered:	7	2.090	acre-ft/yr		2.090	acre-ft/yr
AUTHORIZED CONSUMPTION:		**6,506.064**	acre-ft/yr			

Click here: ? for help using option buttons below

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)			Pcnt:	Value:	
		716.836	acre-ft/yr		
Apparent Losses					
Unauthorized consumption:		18.057	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	5	65.697	acre-ft/yr	1.00%	acre-ft/yr
Systematic data handling errors:		16.258	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses:	**100.011**	acre-ft/yr
Real Losses (Current Annual Real Losses or CARL)		
Real Losses = Water Losses - Apparent Losses:	**616.825**	acre-ft/yr
WATER LOSSES:	**716.836**	acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER:	**719.900**	acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	390.0	miles
Number of active AND inactive service connections:	7	13,098	
Service connection density:		34	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	65.0	psi

COST DATA

Total annual cost of operating water system:	10	$9,334,124	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$2.97	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	5	$432.00	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 67 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Mission Springs Water District (3310008)
Reporting Year: 2017 1/2017 - 12/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

				Pcnt:	Value:	
Volume from own sources:	7	7,811.740	acre-ft/yr	4		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr			acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr			acre-ft/yr
WATER SUPPLIED:		**7,811.740**	acre-ft/yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	6,912.000	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	8	0.629	acre-ft/yr			
Unbilled unmetered:	8	1.464	acre-ft/yr		1.464	acre-ft/yr
AUTHORIZED CONSUMPTION:		**6,914.093**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

897.647 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:	19.529	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	6	69.825	acre-ft/yr	1.00%	acre-ft/yr
Systematic data handling errors:		17.280	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **106.634** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **791.013** acre-ft/yr

WATER LOSSES: **897.647** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **899.740** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	390.0	miles
Number of active AND inactive service connections:	7	13,101	
Service connection density:		34	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	65.0	psi

COST DATA

Total annual cost of operating water system:	10	$9,927,696	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$2.97	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	6	$432.00	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 71 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Mission Springs Water District (3310008)
Reporting Year: 2018 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED				Pcnt:	Value:	
Volume from own sources:	7	7,875.220	acre-ft/yr	3 1.25%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr			acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr			acre-ft/yr
WATER SUPPLIED:		**7,777.995**	acre-ft/yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION				Pcnt:	Value:	
Billed metered:	7	6,950.165	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	9	0.962	acre-ft/yr			
Unbilled unmetered:	8	3.391	acre-ft/yr		3.391	acre-ft/yr
AUTHORIZED CONSUMPTION:		**6,954.518**	acre-ft/yr			

Click here: ? for help using option buttons below

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)				Pcnt:	Value:	
		823.477	acre-ft/yr			
Apparent Losses						
Unauthorized consumption:		19.445	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	6	70.213	acre-ft/yr	1.00%	acre-ft/yr
Systematic data handling errors:		17.375	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses:		**107.034**	acre-ft/yr
Real Losses (Current Annual Real Losses or CARL)			
Real Losses = Water Losses - Apparent Losses:		**716.443**	acre-ft/yr
WATER LOSSES:		**823.477**	acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER:		**827.830**	acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	282.4	miles
Number of active AND inactive service connections:	8	13,215	
Service connection density:		47	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	65.0	psi

COST DATA

Total annual cost of operating water system:	10	$10,264,350	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$2.38	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$600.87	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 74 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

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+ Click to add a comment

Water Audit Report for: Mission Springs Water District (CA3310078)
Reporting Year: 2019 | 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	7	89.660	acre-ft/yr	3	1.00%		acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**88.772**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	73.530	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	9	0.059	acre-ft/yr			
Unbilled unmetered:	9	0.064	acre-ft/yr		0.064	acre-ft/yr
AUTHORIZED CONSUMPTION:		**73.653**	acre-ft/yr			

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

15.119 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		0.222	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	6	0.743	acre-ft/yr	1.00%		acre-ft/yr
Systematic data handling errors:		0.184	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **1.149** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **13.970** acre-ft/yr

WATER LOSSES: **15.119** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **15.242** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	10.4	miles
Number of active AND inactive service connections:	8	256	
Service connection density:		25	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	77.5	psi

COST DATA

Total annual cost of operating water system:	10	$237,053	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$2.87	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$1,743.80	$/acre-ft	Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 74 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

Myoma Dunes Mutual Water Company

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Water Audit Report for: Myoma Water Company (CA3310051)
Reporting Year: 2020 | 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED					Pcnt:	Value:	
Volume from own sources:	6	1,299.200	MG/Yr	8			MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr
WATER SUPPLIED:		**1,299.200**	MG/Yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION				Pcnt:	Value:	
Billed metered:	9	1,123.400	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	31.321	MG/Yr			
Unbilled unmetered:	8	9.200	MG/Yr		9.200	MG/Yr
AUTHORIZED CONSUMPTION:		**1,163.921**	MG/Yr			

Click here: ? for help using option

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)				Pcnt:	Value:	
		135.279	MG/Yr			
Apparent Losses						
Unauthorized consumption:		3.248	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	35.713	MG/Yr	3.00%	MG/Yr
Systematic data handling errors:		2.809	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses:		**41.770**	MG/Yr
Real Losses (Current Annual Real Losses or CARL)			
Real Losses = Water Losses - Apparent Losses:		**93.509**	MG/Yr
WATER LOSSES:		**135.279**	MG/Yr

NON-REVENUE WATER			
NON-REVENUE WATER:		**175.800**	MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA			
Length of mains:	1	35.0	miles
Number of active AND inactive service connections:	6	2,577	
Service connection density:		74	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	80.0	psi

COST DATA				
Total annual cost of operating water system:	10	$2,677,773	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$1.43	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	9	$508.92	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 70 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

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Water Audit Report for: Myoma Dunes Mutual Water Company (CA3310051)
Reporting Year: 2021 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED				Pcnt:	Value:	
Volume from own sources:	6	1,289.270	MG/Yr			MG/Yr
Water imported:	n/a	0.000	MG/Yr			MG/Yr
Water exported:	n/a	0.000	MG/Yr			MG/Yr
WATER SUPPLIED:		**1,289.270**	MG/Yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION				Pcnt:	Value:	
Billed metered:	9	1,155.420	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	33.750	MG/Yr			
Unbilled unmetered:	8	2.130	MG/Yr		2.130	MG/Yr
AUTHORIZED CONSUMPTION:		**1,191.300**	MG/Yr			

Click here: ? for help using option

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)				Pcnt:	Value:	
		97.970	MG/Yr			
Apparent Losses						
Unauthorized consumption:		3.223	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	36.778	MG/Yr	3.00%		MG/Yr
Systematic data handling errors:		2.889	MG/Yr	0.25%		MG/Yr
Apparent Losses:		**42.890**	MG/Yr			

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:		**55.080**	MG/Yr
WATER LOSSES:		**97.970**	MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER:		**133.850**	MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	1	35.0	miles
Number of active AND inactive service connections:	6	2,573	
Service connection density:		74	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	8	80.0	psi

COST DATA

Total annual cost of operating water system:	10	$2,815,600	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$1.33	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	9	$520.32	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 70 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

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Water Audit Report for: Myoma Dunes Mutual Water Company
Audit Year: 2022 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	3	1,130.460	MG/Yr	n g 8		percent	VOSEA
WI	Water Imported:	n	g	n/a	0.000	MG/Yr				WIEA
WE	Water Exported:	n	g	n/a	0.000	MG/Yr				WEEA
	WATER SUPPLIED:				1,130.460	MG/Yr				

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	1,075.740	MG/Yr			
BUAC	Billed Unmetered:	n	g	n/a	0.000	MG/Yr			
UMAC	Unbilled Metered:	n	g	4	28.740	MG/Yr			
UUAC	Unbilled Unmetered:	n	g	3	2.689	MG/Yr	0.25%	default	

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 1,107.169 MG/Yr

WATER LOSSES

23.291 MG/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	n	g	3	2.689	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	4	16.819	MG/Yr	1.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	2.689	MG/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 22.198 MG/Yr

Real Losses

Real Losses: 1.092 MG/Yr

WATER LOSSES: 23.291 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 54.720 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	6	35.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	2,577		(active *and* inactive)
	Service connection density:				74	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 7 80.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$1.37	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$674.59	$/Million gallons	$3,103,393	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

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Water Audit Report for: Myoma Dunes Mutual Water Company
Audit Year: 2023 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments
choose entry option:

VOS	Volume from Own Sources:	n	g	3	1,086.260	MG/Yr	n g 8		percent	VOSEA
WI	Water Imported:	n	g	n/a	0.000	MG/Yr				WIEA
WE	Water Exported:	n	g	n/a	0.000	MG/Yr				WEEA
	WATER SUPPLIED:				1,086.260	MG/Yr				

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	1,061.430	MG/Yr				
BUAC	Billed Unmetered:	n	g	n/a	0.000	MG/Yr				
UMAC	Unbilled Metered:	n	g	4	15.700	MG/Yr				
UUAC	Unbilled Unmetered:	n	g	5	0.440	MG/Yr		custom	0.440	MG/Yr
	AUTHORIZED CONSUMPTION:				1,077.570	MG/Yr				

WATER LOSSES

8.690 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	2.654	MG/Yr	0.25%	default		
CMI	Customer Metering Inaccuracies:	n	g	3	0.000	MG/Yr		percent		under-registration
UC	Unauthorized Consumption:	n	g	6	0.280	MG/Yr		custom	0.280	MG/Yr
	Apparent Losses:				2.934	MG/Yr				

Real Losses

	Real Losses:				5.756	MG/Yr
	WATER LOSSES:				8.690	MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 24.830 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	35.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	2,720		(active *and* inactive)
	Service connection density:				78	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	7	80.0	psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	10	$1.43	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$681.90	$/Million gallons	$2,960,341	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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Water Audit Report for: Myoma Dunes Mutual Water Company
Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	3	1,148.080	MG/Yr	n g 8	2.49%	percent	under-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	MG/Yr					WIEA
WE	Water Exported:	n	g	n/a	0.000	MG/Yr					WEEA
	WATER SUPPLIED:				1,177.397	MG/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	1,115.320	MG/Yr			
BUAC	Billed Unmetered:	n	g	n/a	0.000	MG/Yr			
UMAC	Unbilled Metered:	n	g	10	17.750	MG/Yr			
UUAC	Unbilled Unmetered:	n	g	5	0.510	MG/Yr	custom	0.510	MG/Yr
	AUTHORIZED CONSUMPTION:				1,133.580	MG/Yr			

WATER LOSSES

43.817 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	2.788	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	3	0.000	MG/Yr		percent	under-registration
UC	Unauthorized Consumption:	n	g	3	2.788	MG/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 5.577 MG/Yr

Real Losses

Real Losses: 38.241 MG/Yr

WATER LOSSES: 43.817 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 62.077 MG/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	35.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	2,605		(active *and* inactive)
	Service connection density:				74	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 7 80.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	10	$1.63	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	9	$714.95	$/Million gallons	$3,455,981	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Appendix F

Resolutions of Adoption (To be included in final)

Appendix G

DWR UWMP Checklists

Coachella Valley Water District

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 4.2.1
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 4.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 4.2.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 4.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 4.2.6
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 4.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 4.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 4.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 4.3.4
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 4.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 4.4.2
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 4.4.3.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 4.4.3.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 4.4.5
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 4.4.4.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 4.4.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 4.4.5
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 4.4.6
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	Section 4.5.1
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 4.6.1
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	Section 4.6.1
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 4.7.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 4.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 4.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 4.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 4.6.2.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 4.6.2.10
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 4.6.2.1 Section 4.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 4.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 4.6.2.5
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 4.6.2.5
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section 4.6.2.5
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 4.6.2.5
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section 4.6.2.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section 4.6.2.5
X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 4.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 4.6.2.8 Section 4.6.2.9
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 4.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 4.7.1
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 4.7.2
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 4.7.3
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 4.7.4

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 4.7.2
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 4.7.2 4.7.2.1 4.7.2.2 4.7.2.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 4.7.4
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 4.7.4
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 2
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	Appendix C Section 5.4
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 4.9.1
X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 4.10.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 4.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 4.10.3
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 4.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 4.10.2
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 4.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 4.10.3
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 4.10.4
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 4.10.3
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 4.10.5
x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 4.10.4

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 4.10.3

Coachella Water Authority

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 5.2.1
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 5.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 5.2.3 and 1.5
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 5.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 5.2.6
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 5.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 5.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 5.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 5.3.4
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 5.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 5.4.2.2 and 5.4.3
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 5.4.2.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 5.4.2.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 5.4.4
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 5.4.3.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 5.4.3.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 5.4.3.1
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 5.4.5
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 5.5
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	Section n/a
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 5.7.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 5.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 5.7.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 5.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 5.6.2.9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 5.6.2.9
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 5.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 5.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 5.6.2.5
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 5.6.2.5
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section n/a
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section n/a
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section n/a
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 5.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 5.6.2.8
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 5.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 5.6.2.2
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 5.7.2.1, 5.7.2.2, 5.7.2.3
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 5.7.1
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 5.7.3
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 5.7.3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 5.7.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 5.7.3
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 5.7.3
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.2
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 7
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 5.9
X	n/a	9.2	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 5.10.2
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 5.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 5.10.4
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 5.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 5.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 5.10.2
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 5.10.3
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 5.10.3
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 5.10.4
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 5.10.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 5.10.4
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 5.10.3

Desert Water Agency

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 6.1
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 6.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 6.2.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 6.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 6.2.26
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 6.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 6.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 6.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 6.3.5
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 6.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 6.4.2.2
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 6.4.2.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 6.4.2.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 6.4.4
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 6.4.3.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 6.4.3.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	n/a
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 6.4.5
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 6.5.3
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	Section 6.6.2
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 6.7.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 6.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 6.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 6.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 6.6.2.2.

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 6.6.2.9
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 6.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section 6.6.2.5
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section 6.6.2.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 6.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 6.6.2.8
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 6.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 6.6.2.2
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 6.7.1
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 6.7.1
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 6.7.3
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 6.7.3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 6.7.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 6.7.3
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 6.7.3
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.2
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 7
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 6.9.1
X	n/a	9.2	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 6.10.1
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 6.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 6.10.4
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 6.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 6.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 6.10.2
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 6.10.4
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 6.10.3
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 6.10.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 6.10.4
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 6.10.3

City of Indio

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 7.1
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 7.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 7.2.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 7.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 7.2.3
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 7.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 7.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 7.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 7.3.4
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 7.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 7.4.2.2 and 7.4.3
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 7.4.2.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 7.4.2.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 7.4.4
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 7.4.3.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 7.4.3.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 7.4.3.2
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 7.4.5
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 7.5.3
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	Section n/a
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 7.7.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 7.6.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 7.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 7.6.2.9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 7.6.2.9
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 7.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section 7.6.2.5
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section 7.6.2.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 7.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 7.6.2.8
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 7.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 7.7.2
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 7.7.2
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 7.7.3
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 7.7.3
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 7.7.3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 7.7.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 7.7.3
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 7.7.3
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.2
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 7
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 7.9.1
X	n/a	9.2	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	Section n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 7.10.2
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 7.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 7.10.4
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 7.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 7.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 7.10.2
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 7.10.3
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 7.10.3
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 7.10.4
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 7.10.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 7.10.4
x	n/a	10.5	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 7.10.3
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 7.10.2

Mission Springs Water District

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 8.1.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 8.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 8.2.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 8.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 8.2.6
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 8.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 8.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 8.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 8.3.4
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 8.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 8.4.2.2
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 8.4.2.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 8.4.2.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 8.4.4
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 8.4.3.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 8.4.3.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 8.4.3.1
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 8.4.5
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 8.5.3
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	n/a
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 8.7.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 8.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 8.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 8.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 8.6.2.9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 8.6.2.9
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 8.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section 8.6.2.5
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section 8.6.2.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 8.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 8.6.2.9
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 8.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 8.7.2
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 8.7.2
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	n/a
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 8.7.3
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 8.7.3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 8.7.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 8.7.3
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 8.7.3
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.2
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 7
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 8.92
X	n/a	9.2	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 8.10.2
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 8.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 8.10.4
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 8.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 8.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 8.10.2
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 8.10.3
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 8.10.3
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 8.10.4
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 8.10.5

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 8.10.4
x	n/a	10.5	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 8.10.3
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 8.10.2

Myoma Dunes Mutual Water Company

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	1	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Section 1.3.2
X	n/a	1	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Section 1.3.5
X	n/a	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 9.1
X	n/a	2.5	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 9.2.2
X	n/a	2.5	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 9.2.3
X	n/a	2.5	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 9.2.5
X	n/a	2.4	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 1.4
X	n/a	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 9.2.6
X	n/a	2.4	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	n/a

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
X	n/a	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 9.3.1
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 9.3.3
X	n/a	3.4	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 9.3.4
X	n/a	3.4	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 9.3.4
X	n/a	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 9.3.5
X	n/a	4.2	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Section 9.4.2.2
X	n/a	4.3	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 9.4.2.1
X	n/a	4.3	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 9.4.2.1
X	n/a	4.2	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 9.4.4
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 9.4.3.1
X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 9.4.3.1

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X	n/a	4.2	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 9.4.3.1
X	n/a	4.2	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 9.4.5
X	n/a	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
X	n/a	5.2	Section 5.2	10608.4	"Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 9.5.3
X	n/a	6.1	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	n/a
X	n/a	6.1	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Section 9.7.1

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	6.2	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 9.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 9.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 3.1.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 3.1.2.1
X	n/a	6.2	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 9.6.2.2
X	n/a	6.2	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 9.6.2.2

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X	n/a	6.1	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 9.6.2.9
X	n/a	6.2	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 9.6.2.7
X	n/a	6.2	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 9.6.2.5
X	n/a	6.2	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	n/a
X	n/a	6.2	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	n/a
X	n/a	6.2	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	n/a
X	n/a	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	n/a
X	n/a	6.2	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	n/a
X	n/a	6.2	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	n/a

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X	n/a	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 9.6.2.6
X	n/a	6.2	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 9.6.2.8
X	n/a	6.3	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	Section 9.6.3
X	n/a	7.1	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 9.6.2.2
X	n/a	7.2	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 9.7.2.1, 9.7.2.2,
X	n/a	7.2	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 9.7.2
X	n/a	7.3	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 9.7.3
X	n/a	7.3	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 9.7.3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	7.3	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 9.7.3
X	n/a	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 9.7.3
X	n/a	7.3	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 9.7.3
X	n/a	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Appendix C
X	n/a	8.2	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Appendix C Section 3.1
X	n/a	8.2	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Appendix C Section 3.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Appendix C Section 4
X	n/a	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Appendix C Section 5.1
X	n/a	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Appendix C Section 5.2
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Appendix C Section 5.3
X	n/a	8.4	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	n/a
X	n/a	8.4	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Appendix C Section 5.7

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X	n/a	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Appendix C Section 5.6
X	n/a	8.5	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.5	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Appendix C Section 6
X	n/a	8.6	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Appendix C Section 7
X	n/a	8.7	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 8
X	n/a	8.7	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water shortage contingency planning	n/a	Appendix C Section 8.1
X	n/a	8.7	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Appendix C Section 8.2
X	n/a	8.8	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	8.8	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Appendix C Section 9.1
X	n/a	8.8	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water shortage contingency planning	n/a	Appendix C Section 9.2
X	n/a	8.9	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Appendix C Section 10
X	n/a	8.10	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Appendix C Section 11
X	n/a	8.11	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Appendix C Section 12
X	n/a	8.12	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Appendix C Section 13
X	n/a	9.1	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Section 9.9.2
X	n/a	9.2	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	n/a

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X	n/a	10	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Section 9.10.2
X	n/a	10.2	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 9.10.1
X	n/a	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 9.10.4
X	n/a	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 9.10.4
X	n/a	10.2	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 9.10.2

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 9.10.2
X	n/a	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 9.10.3
X	n/a	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 9.10.3
X	n/a	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 9.10.4
x	n/a	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 9.10.5

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x	n/a	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 9.10.4
x	n/a	10.5	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 9.10.3
x	n/a	10.6	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 9.10.2